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**Information flows affecting coverage of medical research in the UK quality press**

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**Submitted for the qualification of Doctor of Philosophy**

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**March 1994**

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## Acknowledgements

I wish to record many thanks to Professor Micheline Hancock-Beaulieu, who first encouraged me to pursue my interest, has provided excellent supervisory support, and has remained a tremendous friend throughout the project.

I am also grateful to members of the Department of Information Science at City University, London, and of the Department of Communication and Information Studies at Queen Margaret College, Edinburgh, for advice and encouragement along the way. David Bawden (2nd supervisor) warrants special thanks, as do Karen Leport, Sylvia Bugg, Bronwyn Robertson and Alan Hellen for innumerable small kindnesses which were a bigger help than they probably realised.

Projects of this size inevitably owe much to the support of family and friends. Judy Entwistle and Cameron Muir in particular have provided much love through my ups and downs, and Hazel Hall has given plenty of friendly encouragement and practical support which has undoubtably helped to "get it finished".

Last but not least, the presence of G. Warrington's Galloping Victorian Golden horses in Princes Street Gardens has been very welcome during the days of writing up - long live the carousel!

The first two years work on this project were funded by the Department of Education and Science research studentship no. IS90/5516.

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## Abstract

The project aimed to describe and critically evaluate information flows about medical research affecting UK quality newspapers. It focused particularly on the transfer of information from peer reviewed medical journals. In-depth interviews were conducted with media relations personnel at key organisations involved in medical research or more general health issues, and with specialist medical and health correspondents working for the national broadsheet press. The samples were purposively selected. Content analysis techniques were used to study news articles derived from information published in the *British Medical Journal* and the *Lancet*, which were compared with the original journal articles and any news releases associated with them.

Many interacting factors shape media coverage of medical research and the personal motivations and preferences of a variety of individuals can play an important role. However, researchers, press officers and journalists are all constrained by their working relationships and contexts, so it is possible to identify certain common patterns of influence on the information flows.

Press officers' activities are constrained by the characteristics and context of their organisations, particularly by the formal and cultural position of the press office within the organisation, and by relationships with other organisations in the field of interest which compete with their own for media access. Most importantly, they are constrained by their "go-between" role between their own organisation and media representatives who themselves operate under particular constraints. Press officers who liaise with researchers and journalists must seek acceptable compromises between scientific and news values.

Specialist journalists are subject to the constraints of daily news reporting, and their stories must be strong in generally applicable news values if they are to be printed. The medical correspondents interviewed tried to avoid "over-sensationalisation" of stories because they had a sense of responsibility towards both their audience and their sources, but they had to be careful not to "kill" stories in their editors' eyes. Being unable to evaluate research evidence themselves, the journalists relied heavily on the authority of orthodox medical opinion in their story selection and development decisions. Their dependence on sources of authority encouraged them to write within a medical paradigm.

Peer reviewed medical journals, particularly prestigious general journals, are regularly used as sources of news stories. Various factors encourage press officers and journalists to focus on a research project when it is about to be published. In particular, the peer review process is used by journalists as a quality safeguard, and journal policies against prior publication of material discourage researchers from discussing their work until it is safely in academically and professionally acceptable print.

Several major medical research organisations invest heavily in media relations. Those which journalists regard as credible, and which can package information to suit their needs can successfully improve their media access. Future research should consider the roles of corporate culture and of competition between organisations involved with medical research in shaping information flows and media relations activity.



## Abbreviations

The following abbreviations have been used in the text:

### Source organisations

|         |   |
|---------|---|
| ABPI    | Association of the British Pharmaceutical Industry    |
| AMRC    | Association of Medical Research Charities             |
| BHF     | British Heart Foundation                              |
| BHFTA   | British Health Food Trade Association                 |
| BMA     | British Medical Association                           |
| CA      | Consumers' Association                                |
| CRC     | Cancer Research Campaign                              |
| DH      | Department of Health                                  |
| FPA     | Family Planning Association                           |
| FSID    | Foundation for the Study of Infant Deaths             |
| HEA     | Health Education Authority                            |
| ICRF    | Imperial Cancer Research Fund                         |
| MIND    | National Association for Mental Health                |
| MRC     | Medical Research Council                              |
| NAHAT   | National Association of Health Authorities and Trusts |
| NCB     | Nuffield Council on Bioethics                         |
| OHE     | Office of Health Economics                            |
| OPCS    | Office of Population Censuses and Surveys             |
| RCGP    | Royal College of General Practitioners                |
| RCPsych | Royal College of Psychiatrists                        |
| RHA     | Regional Health Authority (generic)                   |
| SS      | Spastics Society                                      |

### Newspapers

|     |                 |
|-----|-----------------|
| GUA | Guardian        |
| IND | Independent     |
| TEL | Daily Telegraph |
| TIM | Times           |

Newspaper articles included in the content analysis are numbered 1 to 90. Complete reference details are given in appendix 9.

### Journals

|      |                                 |
|------|---------------------------------|
| BMJ  | British Medical Journal         |
| LAN  | Lancet                          |
| NEJM | New England Journal of Medicine |

Journal articles included in the content analysis are coded with the first letter of the journal and the first page of the article (e.g B551, L650). References are given in appendix 10.

## 1. Introduction

This project arose because after reading a variety of criticisms of the quality of health information provided in the media, I was surprised to find that the literature lacked detailed explanations of *why* it was so problematic. Although there had been various studies of the content of newspaper and magazine articles and television programmes about science, medicine and health, little academic attention (particularly in the form of empirical research) appeared to have been paid to the means by which such information gets there. I became interested in the factors which influenced the media's selection and presentation of health-related information.

General news room practices have been much written about, and several studies have shed light on relevant aspects of journalists' behaviour. In particular, Tunstall (1971) conducted a classic study of specialist correspondents working for British newspapers, although no medical or science correspondents were included in this. Specialist science journalists in the USA have been the subject of some attention, but since American journalism differs from British journalism, any extrapolation from American findings and writings needs to be cautious. I felt there was room for an investigation of the attitudes, roles and practices of British specialist medical and science correspondents.

It has been increasingly recognised in recent years that "sources" can play important roles in shaping media content. The work of Ericson et al (1989) and Schlesinger et al (1991), on media coverage of crime and criminal justice, marked a shift in studies of news production and source-journalist interactions away from what were essentially media-centric approaches. They considered sources, journalists and the relationships between them more as a complex whole, and I hoped to undertake a similarly "holistic" study, albeit on a limited scale, of media coverage of health and medicine.

Inevitably, the nature of the project evolved somewhat after the initial ideas. In particular, the scope had to be reduced to a manageable size. It was decided to focus on news coverage of medical research in the quality press, and to concentrate on the roles of media relations personnel and journalists as key players in the relevant information flows. Hansen & Dickinson's (1990) work on the roles of scientists in the initiation of news articles would have been interesting to follow up, but media relations officers were thought likely to have more regular and possibly more influential dealings with national newspaper journalists. The role of several medical journals which an earlier project (Entwistle & Hancock-Beaulieu, 1992) had identified as regular sources of news stories in the quality press, was also investigated.



## 1.1 Project aim and objectives

The aim of the project was to describe and critically evaluate the major flows of information about medical research into UK quality newspapers. More specific objectives were:

1. To examine the motives, role perceptions and strategies of individuals and organisations involved in communicating information about medical research to wider publics via national newspapers.
2. To identify and critically evaluate channels of information flow between "sources" of information about medical research and national newspapers, with particular attention to the transfer of information from peer reviewed journals.
3. To determine how news articles about medical research are initiated and developed, and to identify factors affecting topic selection and treatment.

## 1.2 Research approach

The research approach was based on an underlying information flows model of communication. Shannon & Weaver's (1949) classic model of communication, in which a message is passed from a source to a transmitter, encoded into a signal and thence sent, subject to noise, to a receiver where it is decoded and passed to a destination, has widely acknowledged limitations, but remains basically useful. It has been developed further for application to different situations. In particular, McQuail (1990) noted that:

Communication, especially in large systems, has to be looked at as a flow of "information" or messages along a network, a chain, or set of channels. From this perspective, what is of primary interest is not the efficiency of the encoding and transmitting facilities in overcoming "noise", or the integration and articulation of the whole system, but the discontinuities in the flow of information and the processes of selection which occur at various points.

The key concept of "gatekeeping" has been important in studying such discontinuities and selection processes, and studies of the diffusion of information and innovations, and of the use of news values have incorporated this.

The research reported here was developed with these concepts, and a communication model involving information generation, transfer, selection and dissemination, in mind. The information flows model influenced the types of questions which were explored, encouraging consideration of sources of information, information handling processes, channels of communication, and changes in information content and presentation.

Similar approaches have been used to study the patterns of communication among scientists. Most notably, Garvey (1979) investigated "the information exchange activities

which take place mainly among scientists actively involved on the research front" in order to follow patterns of scientific communication "from the time the scientist gets the idea for his research until information about the results of this research is accepted as a constituent of scientific knowledge". Garvey talked about "the special communication structure which science has developed", and Meadows & Buckle (1992) used the phrase "scientific information system" to describe the formal and informal channels via which scientific information is disseminated among scientists.

This project could be regarded as a study of a related system, describing the formal and informal channels via which scientific information is disseminated to journalists and thence to lay audiences. The relationship between the two systems was envisaged largely in keeping with the dominant model of the popularisation of science, characterised by Hilgartner (1990) as a two stage process in which firstly scientists develop genuine scientific knowledge and secondly popularisers disseminate simplified accounts of this to the public. This study thus focused on the second stage of the process, and attempted to investigate in particular how information is transferred from (scientific) medical journals to (popular) news reports. Although the journals are primarily geared to serve as formal communication channels between scientists/doctors, they are often used by journalists to initiate messages to lay audiences.

The two main data collection methods used in the study were in-depth, semi-structured interviews and comparative content analysis. It seemed reasonable to assume that the relevant specialist journalists and the media relations officers of major organisations concerned with health and medical research would play key roles in the information flows affecting media news coverage, and that they would be able to provide valid insights into both their own roles and those of others. It was thus decided that interviews with representatives of these groups would form a major part of the research. Certain peer reviewed medical journals were known to be regular sources of information about medical research for news journalists, and a detailed analysis of their role was possible because they and associated texts (especially news releases and newspaper articles) were relatively accessible for study purposes. The use of content analysis techniques on some of the "products" generated by both media relations officers and specialist correspondents was seen as a suitable complement to the interviews of members of these two groups. The content analysis component of the study quite clearly reflected a basic translation model of the transfer of information from scientific/medical to lay communities. Some of the limitations of the underlying models will be considered at various points in the



text, as will those of the research methods used.

The whole project was, by necessity, quite broad in scope in terms of the range of types of source organisations studied, the variety of information channels considered, and the number of factors explored as possible influences on the flow of information into news articles. It was in many ways seen as an introductory study which would hopefully provide a useful base from which to explore some of the aspects of information flows which it identified as particularly interesting in more detail. With the exception of certain elements of the content analysis, the research was qualitative rather than quantitative. It also sought to analyse the background contexts and the human perceptions and motivations which influenced the relevant information flows, rather than simply to describe exchanges of facts and opinions. The research was conducted with an awareness that changes affecting research communities, organisational media relations, journalists or news organisations were likely to affect the information flows studied.

### 1.3 An overview of the thesis

The literature review begins with a brief overview of studies of science, medicine and health in the media, followed by a more detailed consideration of various criticisms of science news reporting (chapter 2). The major influences on media news are then reviewed. Chapter 3 summarises the accepted wisdom about the roles of journalists, editors and news organisations in news production, including the roles of (American) specialist science journalists. Chapter 4 turns the focus to source organisations and media relations, summarising the literature about doctor-journalist and scientist-journalist interactions, and the tensions which exist between science and journalism. Some of the particular difficulties of reporting medical research are highlighted in chapter 5, which looks at issues surrounding the flow of information into medical journals and from medical journals to lay news media.

After a description of the methodology used (chapter 6), a broad overview of information flows as provided by the interviews is given from the standpoint of both source organisations and media relations officers (chapter 7), and specialist journalists (chapter 8). The focus then narrows to information flows involving medical journals. Chapter 9 reports on a preliminary survey of journal organisations which briefly investigated the extent to and means by which they provided information for journalists. Chapter 10 provides more detail about the media relations activities of both journal organisations and organisations whose research is published in journal articles.

Journalists' views on the usefulness or otherwise of journal articles and media relations material associated with them are discussed in chapter 11, and textual evidence of the use they make of them is examined in chapter 12 which reports on the content analysis.

Chapter 13 draws together some key points and discusses in particular: the constraints and tensions which shape information flows about medical research; the effectiveness of media relations; the promise and problems of peer reviewed journal articles as sources of news stories; and the construction of expertise in the media. Recommendations are made about priority areas for future research.

#### 1.4 Notes on project scope

The following restrictions were made to the project scope to keep it manageable.

1. The focus was on national broadsheet newspapers (the "quality" press). The journalists and news articles studied were drawn from the *Daily Telegraph*, *Guardian*, *Independent*, *Observer* and *Times* newspapers. These were, however, put into context and a wider range of media considered when media relations strategies were investigated.

Quality broadsheet rather than popular tabloid newspapers were selected for study because of their greater coverage of medical research. The major differences in information content between the two types of newspaper led to an assumption that different information flows would affect the coverage in each, and thus that it would be sensible to concentrate on just one type.

2. "Information" was taken to include statements or descriptions of fact or opinion intended for inclusion on news, features or editorial pages, although the primary focus was on news. Advertisements were not considered, because although they convey important messages, the information flows securing their appearance in newspapers are quite different from those for editorial material.
3. "Medical research" was broadly defined, to include basic biomedical and clinical work, as well as studies of health services, health policy, and health economics.

## 2. Media coverage of science, medicine and health

This chapter comprises a brief survey of recent literature concerned with news coverage of science, medicine and health. It begins with an overview of how these subjects are portrayed in the media, briefly discussing the ways in which media content has been studied, and then focuses on criticisms which have been made about the quality of news reporting about scientific and medical research.

### 2.1 Recent growth in science journalism

There is evidence to suggest that media coverage of science (Meadows, 1991) and of medicine and health (Entwistle & Hancock-Beaulieu, 1992) has increased in recent years. Four likely sources of impetus for this increase are: researchers, clinicians and their organisations becoming more aware of the potential benefits of publicity; scientific organisations employing more media relations officers; increasing numbers of specialist journalists; and an apparent growth in public interest and demand, particularly for health information. These are discussed further in chapters 3 and 4. The increased media coverage of science has been accompanied by an increased interest in the nature and quality of this coverage, its possible effects and, more recently, the factors which shape its production.

These trends seem to have occurred earlier in the USA than the UK, and much of what is written about science and medicine in the media is based on observations or research conducted in the America. Although there are similarities between American and British journalism, it should not be assumed that American findings are entirely applicable to the British situation.

### 2.2 A variety of forms

Many and varied aspects of science, medicine and health feature, either as a primary focus or incidentally, in a variety of genres on television and radio, in newspapers, magazines and popular books. A television science programme may dedicate air time to a description of a new surgical technique; a newspaper article about prison conditions may mention the poor mental health of many prisoners; a radio soap opera may feature characters discussing the problems of tranquilliser dependency; and advertising slogans tout the purported health giving properties of various products. The existence of such variety should warn against speaking too generally about media coverage of science, medicine and health.



Although the main concern of this research project is the reporting of medical research as news in the UK quality press, this chapter will provide a wider context of news coverage of science, medicine and health. Coverage of these subjects in genres other than news reports will only be discussed in section 2.3.

## 2.3 Studying media coverage

### 2.3.1 Content analyses

Analyses of science, medical and health coverage in the media have been carried out from several perspectives, and their scope has varied in terms of both subject matter and media. A few quantitative studies of UK media have taken a broad overview: Hansen & Dickinson (1992) looked at the different types of science on television, radio and in newspapers; Kristiansen & Harding (1984) and Entwistle & Hancock-Beaulieu (1992) studied health and medicine in national newspapers. Most content analyses, however, have had a narrower focus: Wellings (1985) studied news reports based on medical journal articles about contraceptive pill use; Hansen (1986) investigated television portrayals of alcohol from a health education perspective; and Smith & Jordan (1991) looked at newspaper coverage of disability. In America, Greenberg & Wartenberg recently analysed television coverage of infectious disease events (1990) and newspaper coverage of cancer clusters (1991).

Classic quantitative content analyses study the explicit surface messages of texts. They can systematically show patterns of subject selection and information provision, and, with appropriate coding categories, can investigate the type of people quoted, the sources acknowledged and thus (to some extent) the journalists' frames of approach.

Content analyses have shown that medical and health sciences are the science topics covered most frequently by UK television, radio and newspapers (Hansen & Dickinson, 1992), although the space devoted to other science subjects has increased relatively in recent years (Meadows, 1991). The focus of media attention shifts over time, fashions change within science and its specialties, and research fields occasionally experience periods in the spotlight when exciting developments are afoot or controversy is raging.

Content analysis techniques alone cannot establish reasons for the patterns of subject coverage they identify, but simple consideration of events can sometimes be revealing. When comparing news coverage of 1990 and 1981, Entwistle & Hancock-Beaulieu (1992) recorded proportionally more articles about the National Health Service and proportionally fewer about disability and medical advances in 1990. Intense political

activity around the N.H.S. in 1990 gave rise to increased press coverage at that time, while the designation of 1981 as International Year of Disabled People drew press attention to events and issues concerned with disability then. Explanations are not always so simple, however. The relative decline of articles about medical advances could be as much due to changes in journalistic approach as to the fact that transplant operations became more routine and therefore less newsworthy during the 1980s. Nelkin (1987) noted shifts in the extent to which journalists have been critical of science and technology. It is plausible that some journalists have adopted a more critical attitude towards medicine and a more cautious approach to advances in therapy in recent years.

Various studies of different media channels have commented on the frequency with which doctors feature when health is mentioned. In a study of BBC medical programmes, Garland (1984) found doctors appearing and speaking in 94% of them and observed a concentration on hospital based, technological and expert-dependent issues. An American study by Turow & Coe (1985) found that medical professionals (predominantly doctors) appeared in 56% of all illness episodes in television news and entertainment programmes, that "drugs and machines were ubiquitous as vehicles of healing" and that over half of all locatable episodes took place in hospitals.

Karpf (1988) identified four paradigms of media treatment of health and medicine, and, in keeping with the above findings, considered the medical approach (celebrating medicine's curative powers, emphasising treatment rather than aetiology, and centred around doctors as the legitimate source of authority) to be dominant. Other paradigms which featured were: the consumer/patient viewpoint (critical of the inequality of the doctor-patient relationship, legitimating the patient's version of their experience and providing information helpful to lay people); the look-after-yourself perspective (emphasising preventive health and advocating healthy changes in individual behaviour and lifestyle); and the social approach to illness (stressing environmental or social origins of illness and concentrating on preventable causes rather than pathology and treatment).

### 2.3.2 Qualitative research approaches

Karpf was one of the first to move away from the traditional content analysis methods and mainly quantitative studies of manifest media messages. In recent years, more attention has been paid to the latent images and ideologies embedded within media texts. Researchers have begun to investigate the values and beliefs present in the discourse and to ask how texts are likely to influence their audience. Their questions include: which



stereotypes will be perpetuated by the text?; who will benefit from the spread of the message?; how are rhetorical and linguistic devices used to convince audiences about the norms of health and ill-health? (Lupton, 1992). These more qualitative analyses can provide powerful insights into the way media "treat" different subjects. For example, cultural studies approaches have provided notable insights into media coverage of AIDS (see e.g. Sontag, 1988 and Watney, 1987), and critical linguistics has been used to investigate media coverage of food poisoning scares (Fowler, 1991).

Gabe et al (1991) studied local newspaper accounts of tranquilliser dependence and found that in this context the medical paradigm did not dominate: doctors were criticised (implicitly and explicitly) and lay people were given a legitimate voice, being presented as consumers who had unwittingly become victims of drugs, but who played an active role in the process of withdrawal.

### 2.3.3 Readability and vocabulary studies

Readability is usually studied in quantitative fashion by applying formulae to words and sentences to calculate scores. Meadows (1991) found scientific reports in newspapers a good deal easier to read than the original research articles, but more difficult than the average newspaper item. This is a typical result (see also Hayes, 1992).

Simple formulae are limited as measures of readability in that they do not reflect every feature of a printed page which affects ease of reading or comprehension. They tend not to take into account print size, paragraph arrangement or amount of white space, and often do not identify the concept-laden words which professionals use when writing for a peer audience. Although these words may be of similar length to those used among lay people, they cannot be fully understood without a sound grasp of background knowledge and theory (Meadows, 1991). Lay people may find it difficult to understand the meaning and use of particular scientific terms, to visualise complex structures or processes, and to comprehend apparently counterintuitive ideas (Rowan, 1991).

Detailed vocabulary analyses of news texts have been carried out, for example by Drushel (1991) looking at coverage of AIDS, and by Smith & Jordan (1991) in the field of disability. These studies highlight how language can stereotype and discriminate against certain groups of people, and how journalists, whether consciously or unconsciously, indicate preferences and prejudices.

## 2.4 Criticisms of science news reporting

### 2.4.1 The critics

People live in their own worlds and thus see the world from their own perspectives. (Schneider, 1986)

A litany of complaints from a variety of sources has been levelled against science and medical journalism. Salomone et al (1990) demonstrated that representatives of different groups tend to judge the quality of news reports according to different criteria. When rating news stories about environmental risks, they found that:

... scientists gave high ratings to stories that were accurate and contained risk information. Industry representatives gave high ratings to stories that were accurate, reassuring, and not likely to undermine trust in official news sources. Government officials gave high ratings to stories that were accurate and reassuring. Representatives from environmental advocacy groups challenged our expectations by caring more about accuracy and risk information than about alarming the public.

Newspaper articles about health and medicine are also likely to be differently assessed by different interest holders. Illness and medical treatment in particular can be sensitive issues to those closely involved with them.

Most attempts to evaluate the quality of news coverage of science have used the standards of scientists as their gauge. This is unsurprising for two reasons. Firstly, according to Nelkin (1987), since scientists have been more eager to see their work covered in the press, they have also become increasingly concerned about the way in which it is covered. Secondly, and perhaps more importantly, the predominant model of science communication sees science "as an avenue of access to assured findings", scientists "as the initial sources", and journalists and public relations personnel "as intermediaries through which scientific findings filter", thus establishing the scientist as "hierarchically dominant over all other actors" and the scientific community as "the ultimate arbiter of the adequacy of scientific coverage" (Dornan, 1990). Scientists are viewed as experts with the ability to assess whether or not journalists have "got it right".

Several studies have found science quick to criticise its messenger to the public. For example, in Salomone et al's 1990 study, scientists gave lower ratings of absolute quality of news articles than other stake-holding groups. The picture is complex, however, and the relationship of a particular scientist to the subject matter of a particular article probably affects his or her assessment of its quality. Tichenor et al (1970) found that 58.9% of their sample of 73 scientists rated science news as a whole as "generally accurate", while 94.5% of them rated articles in which they were quoted as accurate. Thinking it unlikely that scientists only cooperate with reporters known to avoid



behaviours which scientists criticise, they interpreted this finding as "cast[ing] some doubt on the seriousness with which generalised criticism of the mass media is made by scientists". A more recent interpretation is perhaps preferable. Hansen & Dickinson (1992) also found that scientists who had served as sources for news stories tended not to be critical of specific items of coverage in which they appeared. Their explanation involved a refutation of the assumption that scientists agree on what constitutes a true and accurate account of particular phenomena. Given the presence of conflicts and disagreements within science, it is almost to be expected that professionals will be less critical of news stories to which they have had an input than of others in which different points of view are portrayed.

#### 2.4.2 The search for objective criticism

Singer (1990) tried to bypass the limitations of subjectivity involved in asking scientists to assess the accuracy of news articles by taking the alternative approach of comparing them with the original research reports from which they derived. Her results (in terms of the frequency with which various types of errors appeared in news articles) were similar to those obtained by surveys of scientists (see 2.4.13). This comparative content analysis method is useful, but restricted in application to news articles which are based on written reports with which they can be compared. It also shares a limitation with all the systematic accuracy assessments of samples of news stories identified for this review, in that it does not question the scientific validity of the original research. The quality of published research papers varies, and its assessment is problematic (Stephan & Levin, 1991). The provisional nature of scientific findings and hypotheses makes it very difficult to objectively judge the "accuracy" of news reports without the benefit of hindsight and a dispassionate view of paradigms and personalities.

There are other fundamental problems with attempts to "objectively" criticise "popularised" communications about science. Hilgartner (1990) argued that since scientific knowledge is presented in many contexts, it is very difficult to locate precisely a boundary between genuine science and popular representations of it. Popularisation is a matter of degree, so there is room for differences of opinion as to whether any particular version of scientific knowledge is popularised or not. Distinguishing between "appropriate simplification" and "distortion" is also problematic, and questions of what is "appropriate", "accurate" and "essentially correct" can only be answered with reference to value judgements. Dornan (1990) similarly demonstrated that the boundary



between "translation" and "sensationalism" could only be drawn subjectively. These difficulties can have practical advantages for scientists, however. As Hilgartner argued, "the flexibility of the boundary between appropriate simplification and distortion permits scientists considerable leeway when constructing simplified representations of scientific knowledge". It also makes it easy for them to level charges of "distortion" against journalists, other scientists or members of the public. The ambiguous nature of "appropriate simplification" can be used for political advantage, a fact which should caution against uncritical acceptance of criticisms of media coverage of science.

#### 2.4.3 Criticisms of different media

Different criticisms tend to be levelled to different extents against different media outlets. A tendency to talk of the media as singular and uniform can lead to an unspoken assumption that there is a single standard of media performance, whereas in fact not all journalists aspire to Olympian heights of excellence (Powledge, 1986) and there are wide quality variations between and within media. Phillips (1988) noted that dissatisfaction with the portrayal of biomedical dilemmas varied with the type of story and media channel used. The differences between tabloid and broadsheet newspapers in particular should be noted before this study turns its focus to concentrate on the so-called quality press. In Britain the popular tabloid press contains less information than quality papers (Kristiansen & Harding 1984; Entwistle & Hancock-Beaulieu 1992), and their coverage is less satisfying to sources (Hansen & Dickinson 1992). Prestige and tabloid papers in America also differ in the types of research covered and the comprehensiveness of their reporting (Evans et al, 1990).

Some specific criticisms of news reporting of science, health and medicine are noted in the following sections. Possible reasons for the problems highlighted are considered further in chapters 3 and 4 which cover influences on media content and presentation. Criticisms of news reports based on journal articles are discussed in section 5.4.

#### 2.4.4 Subject selection and emphasis

The media are often criticised for placing undue emphasis on certain topics while largely ignoring others. Newspapers have a limited amount of space and thus must be selective in their coverage. Events and issues compete for attention, and inevitably many go unreported. It is to be expected that people to whom a particular disease, branch of medicine or aspect of research is singularly important might complain that their area of

interest is under-represented in news stories, but even a hypothetical objective observer could justify claims of distortion. To give but a few examples of cases in which media coverage does not mirror the world on which it reports: numbers of news articles about different diseases do not correlate with their mortality rates (Kristiansen, 1983); hospital doctors dominate television interviews in numbers bearing no relation to the actual proportions of practising hospital doctors and general practitioners (Garland, 1984); television portrayals of illness episodes include a far smaller proportion of elderly people than are actually involved (Turow & Coe, 1985); and the relative proportions of newspaper space devoted to different scientific subjects do not correlate with the relative numbers of research papers published on each (Meadows 1991).

Certain other gaps in health and medical coverage have been consistently noted. The link between poverty and ill-health is rarely made unless major reports have specifically addressed the issue (Kristiansen & Harding, 1984; Entwistle & Hancock-Beaulieu 1992). Class relations are not part of journalists' reporting framework, and the social institution of the press discourages it (Hartley, 1982). Occupational health risks are possibly also under-reported in the mainstream press (Raymond, 1985).

Subject biases in media coverage could obviously affect public awareness or otherwise of particular issues and might have a detrimental effect on public understanding. The perceived distortions of reality are particularly acutely felt in health risk reporting, where newspapers are accused of focusing on risks which frighten and anger people but do not constitute as great a threat to their lives as others which go unreported and about which people could be encouraged to take effective action (Ames & Gold, 1986).

#### 2.4.5 Images of science and scientists

Images of scientists and doctors in the media have often been criticised, and are generally not those which the professions would prefer to project. In entertainment media in particular, the portrayals often follow unflattering traditional or literary stereotypes (Haynes, 1989). News journalists, however, have tended to work within a paradigm of value-free science, and to view scientists as neutral arbiters of truth rather than people with their own ideologies and political opinions (Nelkin, 1987). Dornan (1990) argued from studies of American science writers that:

The able science reporter is constructed as considerably more deferential to his or her subject matter, more answerable to the constituency being covered, than would be appropriate in other departments of the newsroom... The role advocated is that of a skilled and sympathetic translator.



It is usually the knowledge products of science which are translated. Newspapers are not noted for their representations of the process of science and how scientific communities work (Goodfield, 1981). Science usually progresses slowly, with evidence on a subject being added incrementally by various people. This gradual accumulation of information, however, is not as newsworthy as the application or implications of "new" scientific findings, or dramatic, unusual results (Nelkin, 1987). Newspaper articles often report on a single research study with no mention of how it relates to earlier work. They thus fail to portray the cumulative and collaborative nature of science and may fail to get the importance of a particular study into perspective.

Emphasis on breaking news is often detrimental to good coverage of science, for important progress may not be associated with striking single events, and significance usually lies in long term consequences. (Nelkin, 1987)

Moore (1989) also criticised journalism for giving too orderly a picture of science which had no room for the fact that scientific progress often involves hunches and accidents.

News reports are often criticised for attributing an unjustified amount of certainty to new research findings. Reports on individual studies with statistically significant results, presented in an enthusiastic advocacy style, fail to reveal the tentative and ambiguous nature of most research projects (Begg & Berlin, 1989). They give the impression that a single study on a subject can provide the whole "truth" and constitute an adequate "proof". This impression tends to reduce the credibility of science because subsequent studies can usually soon be found to "prove" the opposite.

#### 2.4.6 Concentration on bad news

Journalists are often accused of reporting bad news rather than good. Wellings (1985) found 34 national newspaper articles (1339 column inches) based on two journal articles published in one issue of the *Lancet*, one reporting an association between a particular type of oral contraceptive and increased risk of breast cancer, and the other a higher incidence of cervical cancer among pill users than IUD users. In the previous week, a *Lancet* article which suggested a protective effect of the pill against breast cancer triggered just one national news article (15 column inches). Koren & Klein (1991) found more media attention paid to a study showing an increased risk of leukaemia among workers exposed to radiation than to a similar study published in the same journal issue showing no increased mortality among people living near to nuclear power stations.



At the other extreme, journalists are accused of falsely raising the hopes of vulnerable people by stories which herald unrealistic "miracle cures" and overstate the importance of "breakthroughs" (Smith, 1992).

#### 2.4.7 Polarisation of viewpoints

Journalists can exasperate scientists by reporting several viewpoints on a controversy but failing to evaluate them. "On the one hand..., on the other hand..." type stories can be accurate in that they correctly quote or summarise what different groups are saying, but they provide little guidance to readers as to the credibility of the evidence behind the arguments or the knowledge and prejudices of the sources. Mobilising information which might advise readers on appropriate courses of action is often completely lacking.

Journalists who try to "be fair" to opposing sides tend to take a polarised approach and emphasise conflict (Nelkin, 1989). This may be to the detriment of subject content:

A common distortion is to highlight conflict and controversy while disregarding areas of agreement, and when the element of conflict is exaggerated, it follows almost inevitably that personalities will be emphasised at the expense of the underlying issues and policies. (Aitchison, 1988)

Journalists keen to present "both" sides to a story may make minority viewpoints appear stronger than they actually are, treating two positions as equal even if over 90% of researchers in the field agree on one (Tavris, 1986). Warner (1989) objected to reporters inviting representatives of the tobacco industry to comment on smoking and health issues and thus creating the impression that there really were two legitimate points of view.

#### 2.4.8 Inaccuracy

Although, as discussed in 2.4.2, there is no objective way of distinguishing accurate from inaccurate versions of scientific reports, it seems appropriate to consider the criticisms of "inaccuracy" which have been made about news coverage of science. There are various ideas about what constitutes inaccuracy in news articles, and many examples of particular inaccuracies, ranging from the rounding up of numbers to complete mix-ups about basic points. Singer (1990) grouped these into three main types: outright errors of commission (e.g. inaccurate references and statements substantially different from those in journal articles); omissions (of important results, methodology or qualifying details); and non-substantive errors (changes of emphasis, misleading headlines, assimilation of speculation to fact, and translations involving loss of precision).

Few people would deny that journalists should strive to report the technical content of the science stories they cover in a way that scientists perceive as accurately, because, as Dornan said, "It makes little sense to argue that the journalist might "understand" the scientific findings better than the scientist himself or herself" (1990). Outright errors of commission might thus seem to be fairly concrete examples of inaccuracy which should be easy enough to define. However, the points at which a reference becomes inaccurate or a newspaper statement *substantially* different from that in a journal article are still elusive of objective determination.

It has been noted that scientists reading articles about their own work are more likely to agree with what journalists write about the methods and results of the research than with the way they interpret its implications and ramifications (Anon, 1986). As well as supporting the argument that judgements about accuracy are subjective, this raises the point that there is some kind of distinction between technical scientific data and the issues it raises. Dornan (1990) noted the tendency of scientists to derive from the claim that science journalism should be technically accurate according to their own standards a further claim "that science is the rightfully dominant authority over the adequacy of press coverage of any issue to which science contributes". Thus scientists are seen to assume that scientific details should dictate the nature of any science-related articles, which is inevitably a problematic standpoint, since scientists often disagree in their interpretations of evidence.

Attempts to assess the accuracy of news reports are thus riddled with difficulties, although the above comments need not lead to complete despair of any appropriate criticism being made. It seems likely that there will be a great deal of consensus as to the inaccuracy of some clear-cut mistakes on the part of journalists reporting scientific details. It is judgements about statements which lie around the fuzzy boundary of accuracy/inaccuracy which need to be treated with caution.

#### 2.4.9 Omission of relevant information

Short news articles are, not surprisingly, often faulted for omitting relevant information. They cannot compete with the comprehensive detail of papers written for academic journals, and judgements about what elements are important to the public, what *should* be included, are inevitably value-laden and thus prone to disagreement. There is some consensus that information about previous research, methodology, and study limitations in particular is often omitted to a problematic extent from articles about



scientific and medical research (Tichenor, 1970; Tankard & Ryan, 1974; Singer, 1990). Media coverage of controversial technologies has also been criticised for neglecting to explore the scientific issues or methods of risk analysis, and focusing instead on competing interests, disputed data and conflicting judgements (Nelkin, 1989). Oxman et al (1993) constructed an index to assess the scientific quality of media health reports on the basis of judgements as to how well they allowed readers to draw conclusions about the applicability, validity and practical importance of the information reported.

Some news articles fail to cite their sources of information (for example the journal in which research was published), and very few disclose the track record of the scientists involved. Although such omissions would seem to be objectively measurable, the extent to which they really matter is debateable. However, they have been taken to suggest that journalists effectively treat peer reviewed research papers in the same way as public relations documents (Koshland, 1991).

#### 2.4.10 Prematurity and sensationalism

There have been various instances in which the media have been accused of carrying news reports of research prematurely. The uncertainty of science means that there is no obvious point at which everyone agrees research findings should be communicated to the public. As will be discussed in more detail in chapter 5, those in favour of quick release of information can argue that the implications of the research are important: the need to warn people of a likely health risk or to alert people with a particular disease that there is a treatment from which they may benefit could be regarded as urgent. The main arguments against early publicity are that results or interpretations which have not been peer reviewed are more likely to be flawed, and that doctors need to be aware of the details of the research which their patients might ask about after they have received brief information from news reports.

As mentioned above, the distinction between "good" translation and sensationalism in news reporting is unclear. However, hyped reporting of the progress made in research is fairly regularly criticised (see e.g. Smith, 1992 as outlined in 2.5.1). The feared effect of such reporting is that it will falsely raise the hopes of vulnerable people. Hyped reports of health risks could similarly cause inappropriate levels of anxiety. A widespread "scare" about a chemical, Alar, used to ripen apples, was caused when

A clearly dubious report about possible carcinogenicity by a special interest group was hyped by a news organisation without the most simple checks on its reliability or documentation. (Koshland, 1991)



Judgements about sensationalism can incorporate many elements. For example, the failure to include criticisms of or comments on the research by other scientists would seem to reduce the likelihood that the importance of a study is presented in a balanced way. Serious omissions of methodological information would prevent even the reader who is able to be critical from judging the claims made for the research. It is the plurality of views concerning what information should be included in an article, what should be emphasised and how it should be presented which creates the differences of opinion as to what constitutes inaccuracy, omission and sensationalism. Claims of sensationalism are, however, probably most likely to arise when critics disagree with journalists over the potential implications of research.

Some accusations of overstatement and sensationalism could possibly be avoided if news reports conveyed the tentative nature of research findings and the limitations of the reported studies. Unfortunately, news reports often lack qualifying statements and warnings against reading too much out of results, and journalists tend to err in the direction of over-interpretation (Cohn, 1989b).

#### 2.4.11 Misleading by headline

Headlines effectively represent the newspaper's ultimate distillation of a piece of information. They tend to be bolder in their statements than the news articles they announce, and may have a different tenor (Gitlin, 1980). In their crude simplicity, they are often judged misleading or inaccurate (Singer, 1990; Tankard & Ryan, 1974). This is particularly problematic because headlines are usually the first thing people read, and may leave a lasting impression, especially on the reader who "skims" the article.

With detailed explanations and qualifications buried deep in the text, the images of science and technology received by casual readers who simply scan the headlines may be quite different from those received by careful readers. (Nelkin, 1987)

#### 2.4.12 Lack of originality in reporting

The press often delays in covering a problem, because it has not yet defined the problem as "news". (Nelkin, 1989)

Some news stories are so unusual that they strain the belief systems of journalists and readers alike. Glue sniffing seemed so bizarre in the 1950s that it was not pursued in the media (Meyer, 1990). However, once topics have been reported, they tend to recur:

When media interest in a topic gains momentum, reporters begin to track it. Further developments have a higher probability of being reported, both because

they are noticed and because it is assumed the public's attention is on the topic. (Winsten, 1985)

AIDS is perhaps a classic example of this. Kladman (1991) among others has noted how there was little about AIDS in the news when it was first discovered, but once it was established as a media topic, almost anything AIDS-related became news.

The media are apparently congruent: journalists working for different news outlets tend to produce similar stories, covering the same topics with the same angles and frames (Gandy, 1980). They often share metaphors and perpetuate stereotypes and they tend to make repeated use of a small group of individuals as authorised knowers in science news (see 4.6.2).

#### 2.4.13 Which criticisms are most common?

There have been various attempts to estimate the prevalence of faults in science news. Tichenor et al (1970) surveyed scientists and found the criticisms most commonly thought to apply to most science news were: overemphasis on the unique; omission of relevant information; and misleading headlines. Tankard and Ryan (1974) asked scientists to identify the presence of any of 42 types of error in newspaper articles which reported their work. They most commonly identified: omission of relevant information about method; omission of relevant information about results; and investigator misquoted. By comparing newspaper reports with published research papers, Singer (1990) found their most common faults to be: omission of qualifying statements; no mention of methods; change of emphasis in comparison with the original report. Given that these studies used different methods and different samples, and are not strictly comparable because the range of criticisms studied and definitions used varied, the similarities of their findings are in some ways quite striking. They should not be too surprising however, because all either involved the judgements of scientists or a comparison with "scientific" documents.

#### 2.5 Where do the faults lie?

Given that different people may find different reasons to criticise news reports, it should not be surprising that attribution of blame varies. Some criticisms might simply be products of the differences (including different values) between science and journalism (see 4.10). Of the more widely accepted criticisms, it is not easy to ascertain which (and to what extent) are "caused" by journalists, editors or news organisations, researchers, officials in research organisations, or the social structures of science and



medicine. Similar problems might be caused by different people on different occasions. There are some journalists who distort, oversimplify and misunderstand what scientists tell them, just as there are some scientists and doctors who overstate their own work or refuse to co-operate with the media and explain their research in lay terms. The following case study of debate about a recent *Sunday Times* article illustrates some of the differences of opinion as to the roots of "hype" in news reports, as well as many of the issues discussed above.

### 2.5.1 A case study of disagreement

A *Sunday Times* article about possible genetic causes of asthma (Ballantyne, 1992a) recently became a much-discussed example of lay journalistic hyperbole. In a *British Medical Journal (BMJ)* editorial, Smith (1992) worried that the (in his view unjustified) claims of progress made in the article would falsely raise the hopes of vulnerable people, who would later feel "distraught and cheated" when they discovered the article had been greatly hyped. Commenting on the cause of the problem, he said that: the *Sunday Times* had been responsible for several excessively sensationalised reports recently; that "some highly respected scientists seem(ed) unwittingly to be participating in the process" of creating journalistic excess; and that some of the blame lay with people representing organisations wanting to get particular messages into newspapers. In this case, the messages were intended to raise the profile of medical research and encourage funding for specific research projects. Smith suggested that while trying to put across such messages, the directors of the Imperial Cancer Research Fund and the Wellcome Trust

... do nothing for the public understanding of science by making statements that can be used to endorse the suggestion that the eradication of genetic disease is something not much more complicated than Lego. (Smith, 1992)

The editorial provoked several letters to the *BMJ* revealing a variety of opinions about the particular news article and the problems of communicating information about medical research to a lay audience. The journalist responsible for the article defended herself, saying that Smith had failed to substantiate his claims of "appalling hype" and noting that her sources were eminent scientists whose comments did not contradict "the more cautious doctors leading the research team", but who simply used their experience "to give the wider perspective demanded by [*Sunday Times*] readers" (Ballantyne, 1992c). She also raised the question of the timing of release of research information:

Smith's real objection seems to be that research papers - the *BMJ*'s future exclusives - have received a premature airing in the full glare of national newspaper coverage. Though I do not doubt the necessity of peer review, I am



sure the *BMJ* does not wish to put the professional's right to publish above the public's right to know (Ballantyne, 1992c).

The possibility of the *BMJ* refusing to publish research papers on the grounds that their content had received prior media attention was not raised elsewhere (although one correspondent did note that the research had in fact been previously published). The two directors of the medical research institutes, however, supported the journalist's insistence that the public should know about progress made in research funded by public money.

The public should be made aware of the excitement and promise of current medical research, including in particular analysis of the human genome. The intelligence and commonsense of patients should not be underestimated. Patients often seem to support the need for long term research to deal with their diseases more than some of those professionally concerned with the enterprise of medical research. (Bodmer, 1992)

Ogilvie (1992) also commented that the Wellcome Trust knew that patients involved in the reported study were "delighted that the work has received this publicity", being confident that the study of genetic disease would eventually lead to better treatments, although none of them believed they could confidently state when this would be.

Bodmer and Ogilvie did not disagree with Smith that information in the *Sunday Times* article had been hyped, but seemed less worried about the quality of the reporting than about the story getting into the media at all. Both accepted that journalists might not quote their comments exactly, fully, or in the context they intended.

I was asked to comment on the importance of the human genome project in general and to relate this to the asthma family study. My comments were therefore directed not only at the gene for asthma but at the value of the project in general, and this may not have come across in a short article. (Bodmer, 1992)

I am happy to discuss with journalists the scientific results of work funded by the Wellcome Trust, knowing that they are likely to quote a small fragment of what is said in a long interview. (Ogilvie, 1992)

They were supported by Albert (1992), who agreed that some journalists and scientists should be accused of hyperbole and recognised the difficulties of putting across medical findings to a public "that is both ill-informed about health and hungry for knowledge about it" when "mutual suspicion and stereotyping" bedeviled science and journalism:

The solution is not, as Smith seems to suggest, that scientists should be more careful about what they say to the press; in reality this will mean that they increasingly say nothing. Instead, attention should focus on more fundamental issues, such as understanding the structural reasons why this type of communication has failed and improving the standard of health education generally. (Albert, 1992)

One final letter to the *BMJ* was more radical in its criticism. Richmond (1992) suggested that the science behind the hyped claims was itself controversial. The

researchers whose work was celebrated in the *Sunday Times* article had in fact published their findings several years previously, but several other research teams had failed to replicate them. Research which contradicted that reported in the *Sunday Times* had been published, but was not mentioned in the newspaper article. Richmond also made an important point about the timing of the publicity for the work: the *Sunday Times* article had appeared "when virtually every British expert on allergy was at the annual conference of the American Academy of Allergy and Immunology in Orlando, Florida".

The correspondence did not provide a solution to the problem of hyped reporting of medical research but it goes some way to illustrating the complexity of the issues. Optimism about obviating the need for criticism of science journalism in the future is probably misguided. News reporting about research is unlikely ever to be regarded as perfect: the characteristics and constraints of science and journalism are such that there will always be tensions between them, and the variations in opinions as to what constitutes ideal science news reporting should keep the quality debate alive for some time to come.

### 3. Influences on media news (1): Journalists, editors and news organisations

Many interacting factors influence news content and presentation. Journalists and editors exercise their own choices over what to report and how, but their decisions are undoubtedly shaped by their context. News organisations have particular goals, influential internal power structures and normative working practices, and they operate within political, economic, social, and cultural environments which include the individuals and organisations who serve as the subjects of and audiences for their stories.

This chapter summarises what is understood about the activities of journalists within their news organisations and in their interactions with individuals, organisations and activities in other arenas, examining factors affecting the selection of events and issues as news and the presentation of information in news articles. The information about general journalistic practice is based on both British and American literature, while that about specialist science and medical reporting is derived mainly from American sources.

#### 3.1 Discussion in public arenas

Newspapers form an important public arena and their content is influenced by the six factors which Hilgartner & Bosk (1988) identified as determining which social problems are discussed in such arenas: competition for prime space; a need for drama and novelty; a danger of saturation; the rhythms of organisational life; cultural preoccupations; and political biases. When briefly explained, it is fairly easy to see how these apply to newspapers. The limited message carrying capacity of public arenas gives rise to competitive pressures which encourage dramatic, persuasive and succinct portrayals of issues. It is difficult to retain a dramatic element over time, so ongoing issues must be portrayed with new symbols in new frames to avoid saturation. The timing of public debate is influenced by peaks and troughs of organisational activity, and cultural concerns encourage the definition of certain situations as problems more worthy of attention than others. If powerful political or economic interests sponsor a particular issue, it is more likely to appear on the public agenda. Issues high on the agenda in one public arena are more likely to be given space in others. Thus newspapers influence and are influenced by activities in other public arenas, including parliament and other media.

#### 3.2 Economic pressures

National daily newspapers in the UK are commercial enterprises. Space and readers must be sold to advertisers, and copies to readers, if they are to survive. Pressure to



make such sales undoubtedly influences editorial content and style. The economic state of the news organisation may also affect news content by limiting the numbers of journalists (especially specialists) available to cover stories, their resources, travel budgets etc. (Friedman, 1986).

### 3.2.1 Selling space to advertisers

The attractiveness to advertisers of a well defined (preferably rich) target audience is one reason for the sharp polarisation of popular tabloids and quality broadsheets (Sparks, 1992). The value of being able to offer advertisers space which is likely to gain the attention of a particularly interested audience has also contributed to the growth of specialist sections and pages within newspapers (Tunstall, 1971).

Advertising considerations can influence the selection of individual stories: many commentators have noted how the dangers of smoking have been under-reported in the press because editors do not wish to offend large advertisers who provide a substantial proportion of newspaper revenues (Wallack, 1988; Warner, 1989). Journalists wanting to warn consumers against other products may be similarly discouraged, albeit on a smaller scale. Conversely, they might be pressurised to include stories which put advertisers' products or services in a favourable light. Positive editorial coverage is highly valued by product or service promoters: not only is it free, it may be seen by readers to have the "independent" endorsement of a journalist.

### 3.2.2 Selling newspapers to readers

The use of promotions to entice the public to buy particular newspapers is beyond the scope of this review, and it must suffice to say that journalists are normally obliged to write articles which attract and capture the attention of readers. Certain types of story are almost guaranteed to do this, and are repeatedly used by journalists. The news values they exhibit are discussed in some detail in section 3.5. In general, if stories are to encourage continued sales of a newspaper, they must strike a chord with their audience: there must be some degree of cultural resonance. Some subjects are rarely reported as news because they are thought to lack cultural proximity to the audience. Journalists have suggested, for example, that occupational health risks affecting poor workers are less likely to be reported in newspapers with a readership drawn mainly from higher socio-economic groups than more widespread environmental carcinogens (Nelkin, 1987).

### 3.3 Social and political pressures

Hilgartner & Bosk (1988) noted that activities in one public arena trigger activities in another, amplifying or dampening the attention paid to a particular issue. Obviously, major events in public arenas such as parliament are likely to be covered by the press. It is also likely that news coverage is influenced by journalists' considerations of its implications for various people and organisations, including themselves. Specialist journalists in particular are likely to remember their dependence on certain sources before they publicise information which might put them in a bad light (Tunstall, 1971).

It would be difficult to establish how often the press have failed to cover issues in order to avoid giving offence to powerful groups or individuals. Newspapers take pride in their independent watch-dog type role, and regard most miscreants as fair game, but they do not uncover all wrongdoings or scandals, and may have difficulty obtaining information when vested interests are determined to keep a subject private. The extent to which owners influence newspaper content is much disputed, but since its effects are largely confined to political reporting, the debate will not be repeated here.

### 3.4 The constraints of journalism

News production is governed by news-gathering resources, deadlines, space limitations, journalists' skills and backgrounds, and editors' biases and interests.

These structural realities distort or constrain the presentation of information, news and critical debate in general. (Barns, 1989).

#### 3.4.1 Pressures of time

Journalists writing for daily newspapers must find newsworthy stories every 24 hours and file copy regularly to meet strict deadlines. They are thus encouraged to use pre-packaged information (Nelkin, 1987). Science and medical correspondents are apparently rarely troubled by a lack of potential story material. Their difficulties tend to arise from the need to select stories from the huge amount of information with which they are bombarded via post and telephone each day. The range of subjects to which they are alerted is unpredictable (Kotulak, 1989), and the time constraints under which they must make their selections mean that important subjects may get overlooked.

Once a subject has been selected, tight deadlines constrain journalists' searches for further information, background detail or additional comment, perhaps causing them to "slight or omit essential perspective" (Cohn, 1989b). There is a tendency to rely on their own or their colleagues' experience and memory as there is rarely time for them to



establish what or who would be the most knowledgeable source on the subject. The choice of whom to interview is likely to be limited to those already known to them or quickly identifiable and available. Of these, they are pressurised to select authorised knowers whose statements could strengthen a story:

We reporters tend to rely most on "authorities" who are either most colourfully quotable or quickly quotable, and these authorities often tend to be those who get most carried away or who have the biggest axes to grind. The cautious scientist who says "We don't have enough data yet to make a strong statement" tends to end up, figuratively, on the editing room floor, or literally in the 20th paragraph. (Cohn, 1989b)

The 24 hour cycle of news is often cited as a reason why newspapers tend to cover events which occur on a particular day rather than ongoing issues which simmer and develop over a long period of time. The daily routine of journalism means that scientific research is most likely to make news when it can be associated with an event happening on a particular day. Presentations at scientific conferences and articles in peer reviewed journals give journalists a "today" peg on which to hang a story as well as enough information with which to write it. Conferences and peer-review journals are favoured as sources for other reasons, too (see 5.3). For now it will simply be noted that use of these two as the major sources of information means that emphasis is usually placed on research results to the neglect of the research process, and that science gets portrayed in newspapers as a series of more or less dramatic steps forward.

### 3.4.2 Pressures of space

Newspapers have a limited message carrying capacity and can only entertain so many problems and topics at any time, so the rise of one topic in the news must be accompanied by the fall of another (Hilgartner & Bosk, 1988). Science and medical stories must compete with others for the limited space available in newspapers, and are apparently judged according to much the same news values. This competition influences journalists' choices of subject matter, frame of treatment and presentation style.

Journalists may feel pressurised to "strengthen" a research story to enhance its chances of being printed, especially if they are filing copy relatively late in the day when stories are more easily rejected because of a lack of space (Tunstall, 1971). Even if they have a feel for research as an ambiguous enterprise and understand that interpretations of data are cautious, they also appreciate that black and white is more newsworthy than grey, that authoritative statements are more likely to be printed than tentative ones, and that if they want an article to appear in print, they must to some extent conform to the



newspaper's norms and produce a strong story. Ambitions to have a story printed in a prestigious position may further tempt a journalist to overstate or oversimplify (Breo, 1989). One highly regarded American science writer confessed:

We have to almost overstate, we have to come as close as we can within the boundaries of truth to a dramatic compelling statement. A weak statement will go no place. (Cohn, 1989a)

Of course, even a strong science story cannot be guaranteed space, prominent or otherwise, in the newspaper. If a major news story breaks which editors feel warrants several pages of coverage, this may well oust it.

Assuming a story is selected for coverage, it must be written to a specified word length, which inevitably limits the amount of information which can be conveyed. There is not enough space in a newspaper to include full details of methods, results, discussion and conclusions as they appear in journal papers. Journalists must select what they think essential to a story. Those who judge news stories and journal papers by the same criteria are bound to be critical of the lack of detail in the former (Dunwoody, 1986a).

### 3.5 News selection

Many factors influence what gets reported as news. Editors and journalists choose news for their readers, and the eligibility of events for reporting varies with their interests, the special interests of the newspaper, and its audience. No clear rules or formulae can predict even for a given newspaper exactly which events will become news, but various factors have been identified which increase (or decrease - there are taboo topics, too) the likelihood of an event being reported. Value systems, whether explicitly recognised or not, help journalists decide what to cover and how to cover it.

According to Hodgson (1992), assuming the news organisation is aware of an event, its two most important attributes in terms of news value are the extent to which the people involved are well known, and its geographical and cultural proximity to readers. These two features probably provide a good rule of thumb, but more elaborate systems of news values have been identified.

A detailed analysis of factors determining which events became news was carried out by Galtung & Ruge in their classic study of foreign news (1965). They identified the following as important: an event's frequency (the more similar this was to the frequency of the news medium, the more likely it was to be recorded as news); its strength or intensity (which must exceed a threshold); unambiguity; meaningfulness (cultural proximity, relevance to the audience etc.); consonance with the accepted; unexpectedness

(within the consonant); continuity; balance with other events; reference to elite nations or elite people; reference to persons; reference to something negative.

These news values would appear to be basically relevant to science and medical stories and can help explain patterns of news coverage. For example, Phillips (1988) alluded to the news value of reference to persons when he noted that a story about a child needing an organ transplant may make front page news, but a story about transplantation statistics is likely to get buried. Friedman (1986) noted that the primary criterion of American science writers for a good science story was relevance to or application for the reader. Basic science is less frequently covered in newspapers than applied aspects because it is considered less meaningful to readers. Progress in biochemical research apparently is not seen to have the same relevance as developments in clinical medicine.

In 1980, Gans reported a study of an American television network and a news magazine and identified six unspoken values affecting journalists' decisions of what to print or broadcast and how to frame the information: small town pastoralism, altruistic democracy, responsible capitalism, ethnocentrism, moderatism and individualism.

Neither Galtung & Ruge's nor Gans' sets of news values are exhaustive: additional or alternative criteria may be applied by different media and to different subjects. Television news places an obvious priority on good "visuals", while radio programmes try to include a range of sound textures. Broadsheet and tabloid newspapers also vary in the emphases they place on different news values: illness episodes involving celebrities, for example, are more likely to appear in the tabloids than the broadsheets (Entwistle & Hancock-Beaulieu, 1992).

News values may vary for different topics and over time. Wilkins (1993) noted that in recent media coverage of the greenhouse effect, journalists used at least three extra values to those identified by Gans: progress, the institutionalisation of knowledge, and innocence. Regarding coverage of AIDS, Nelkin (1987) commented that at one point,

Given the public appetite for AIDS news, the preoccupation with the disease, and the competition in the news business, no scientific claims on this important subject could simply be ignored.

News values interact in complex ways, and attempts to predict what types of event will most often become news can do no more than indicate broad probabilities. For example, stories with taboo elements may be used if they are strong in news value for other reasons. Very little media interest was shown in bowel cancer until it was diagnosed in President Reagan in 1985 (Currie, 1985): presumably the celebrity factor outweighed considerations of squeamishness. Similarly, there was little coverage of



AIDS when it was a disease affecting just a few homosexual men, but this picked up firstly when it became clear more people would be involved (Klaidman, 1991), and secondly when a celebrity (Rock Hudson) died of the disease (Currie, 1985). Klaidman described well why AIDS initially struggled for news attention:

A disease of uncertain origin, which might result from lifestyle choices viewed by many as distasteful, and which seems confined to a limited community widely considered aberrational, cannot fight its way ... into conservative newspapers with traditionalist audiences, until the number of sick persons reaches some critical mass.

It should also be remembered that although many news values are generally applicable, journalists will always exercise a certain amount of individual discretion (Tunstall, 1971), and potential will always exist for personal preferences to come into play.

The personal interests of journalists and editors are likely to influence the selection of topics for attention. Journalists tend to treat their own preferences as a mirror for their readers', thus giving themselves both a rule of thumb for story selection and a justification for spending as much of their working time as possible on topics that interest them (Dunwoody, 1986c). Identification with the audience may also legitimise avoidance of topics which journalists or editors find distasteful, and it is difficult to distinguish their concern for readers' sensitivities from their own prejudices. While it is accepted that AIDS might have been run earlier as a news story if the first afflicted people had not been homosexuals, it is uncertain whether the delay was due to the homophobia of some editors, to their fear of a poor reception from their readers, or to both (Klaidman, 1991).

### 3.6 Information gathering and story development

There are various sources and resources which journalists might use when seeking information, each with their strengths and limitations. Information actively offered to journalists by organisations is obviously tailored to suit the source and tends to contain only the information which they wish the media to print, but it can be an adequate basis for a complete story. Aitchison (1988) advised journalists:

When a newsworthy release comes from an organisation which you know and trust, or from a writer who is known to you, then it will often be safe to use the information without further investigation.

Given the pressures of time under which journalists work, such gifts of information can be extremely welcome. Impending deadlines limit the amount of research which reporters can do for a story and may influence their choice of sources. Press conferences



at scientific meetings, for example, can be attractive because they "compress information into a manageable hour of a journalist's time" (Dunwoody, 1986a). Although the use of a number of sources is thought important for good scientific reporting, journalists often use only one or two. In the case of general reporters, this may be because they do not immediately know where to go for information (Friedman, 1986).

It is generally accepted that journalists prefer to use personal contacts and their own cuttings as sources of information, largely because they need to supplement publicly accessible information with the more unusual:

As a result of the competitiveness between journalists, informal sources are widely used, highly regarded, and play a major role. It is important to appreciate the dual nature of the journalist's information gathering system, depending upon both common, shared (invariably formal) sources and exclusive (usually informal) sources. (Nicholas et al, 1987).

Nicholas et al (1987) observed only low use of on-line information sources among journalists. While certain databases were potentially useful for pressurised fact checking, they had various drawbacks for background or stimulative searches. Journalists trying to follow up ideas or hints do not have the precisely defined information needs which on-line copes best with, and they are not interested in "complete" searches. Bibliographic databases do not provide the instant information required, and full text news databases cannot compete with traditional cuttings files because they often omit headlines and do not give a feel for the context of the article.

Journalists have priorities regarding the kinds of questions to ask, and the development of a story can be simplified by adherence to certain norms, for example in putting a frame or angle on a story. Traditional assumptions in news treatment include:

News concerns the *event* not the underlying condition; the *person* not the group; *conflict* not consensus; the fact that advances the story not the one that explains it. (Gitlin, 1980)

Victor Cohn, an American science writer, suggested there were only two kinds of medical story: "new hope" or "no hope", and that there was a strong temptation to report research stories as either one or the other (Breo, 1989). Standard frames and journalists' opinions and understandings of a topic may thus influence their search for information.

### 3.6.1 What do journalists seek?

There has been some debate about the extent to which journalists selectively gather and report information which confirms their presupposed ideas about events and

situations. To investigate whether journalists' initial thinking biased their subsequent reporting, Stocking & LaMarca (1990) interviewed 11 reporters from an American city newspaper about stories they were planning. They found that all reporters expressed either implicit or explicit hypotheses about their subjects for at least some of the stories they were planning, and in some cases also expressed competing hypotheses, consistent with (particularly American) journalistic norms of fairness and balance. The journalists' assumptions about the people and things they intended to cover were based on information of varied quality and reliability. Although the study was limited (in particular it did not control for journalists' familiarity with the topic and their potential sources), it highlights an interesting area with potential for further research.

### 3.6.2 The Media Resource Service

The Media Resource Service (MRS) aims to improve the quality of science and medical reporting by facilitating links between journalists and experts who could provide information and comment. It is funded by the CIBA Foundation and has been operational since 1985, offering journalists a free expert referral service on any scientific subject. It will be described in some detail here because it is an important node in information flows affecting coverage of (among other things) medical research in UK media.

The service relies on a computer database on which scientists' names, contact details and self-assigned descriptions of areas of expertise are stored. Additional hard-copy files for each expert contain curricula vitae, lists of publications, and records of the journalists to whom the expert has previously been recommended on particular topics.

The MRS's main criterion for including individuals on the database is that they are able to speak with authority on a particular subject. The basis of authority is normally a strong reputation in a specialist scientific community or a position in the forefront of research in the subject as recognised by MRS staff or respected scientific or medical institutions. The three main routes by which individuals are recognised as experts are:

- 1) MRS staff monitor scientific journals and conferences and identify people who have apparently achieved excellence in their field.
- 2) Professional associations or research institutions recommend specialists to the MRS. Recommendations tend to come from the media relations officers of academic establishments or medical research charities. As yet, only one commercial research organisation has put forward its own experts.
- 3) A process of secondary referral operates, whereby experts who decline to be included on the database suggest someone else who could provide expert comment in the same area.



Recruitment of specialists to the database can be demand led. If a particular scientific topic became prominent in the media, either in its own right or because of an economic, environmental, political or social controversy, the MRS might quickly try to identify people with relevant expertise. The MRS seeks to have all sectors of the research community and a range of viewpoints represented among its experts, particularly on controversial subjects. It is estimated that 85%-95% of individuals accept invitations to be included on the expert database. The remainder either do not reply or decline because they are too busy. To date there have been no cases of scientists refusing to be included because they object to the MRS in principle or explicitly refuse to speak with media representatives, and there are currently over 2700 experts on the database.

When a journalist telephones the MRS with an enquiry, staff note the name and affiliation of the caller, their question area and their deadline. If questions are broad and relatively unrefined, MRS staff might suggest particular angles of approach to journalists. If journalists are merely looking for simple definitions of technical terms, they might look these up and provide an answer themselves. Once appropriate questions have been ascertained, staff interrogate the database to identify relevant experts and, depending on the number found, might use geographical considerations and the extra detail provided by the hard copy records to whittle down the retrieved list to a reasonable size. They try to avoid over-use of any one expert, and might take into consideration any annotations to records which suggest that someone either has or lacks the skills and characteristics appropriate to particular media types.

Journalists are generally given two or more contact names, and on controversial subjects the MRS tries to identify experts representing different viewpoints (although of course it is ultimately up to journalists whom they contact, whom they quote and from what angle they write the story). Staff usually try to pre-warn experts whom they recommend to impending calls from the media. Experts are asked to speak to journalists on a non-attributable basis in the first instance, and for reporters seeking simple explanations or background facts, that is often sufficient. If a journalist seeks attributable comment and the expert is willing to provide it, their contribution is extended. As mentioned above, journalists tend to take note of experts identified by the MRS and contact them again. Some experts referred in the first instance by the MRS have been retained as "advisers" by particular media outlets.

Since 1987, MRS staff have evaluated their service by means of regular surveys and contact with both journalists and experts. Among other things, it has been found that



approximately 90% of experts provided by the service have not been used by the media representatives before, and over a third of experts once identified by the MRS are used again by the journalists to whom they were recommended.

### 3.7. Article writing

#### 3.7.1 Structure and writing style

Traditionally, news articles are written in an inverted pyramid style to a fairly rigid formula. A summary lead sentence conveys the who, what, where, when, why and how of a story, and details are brought out later. For editors, this arrangement makes it easier to fit stories to available space as sentences can simply be cut from the bottom. Scientists are less likely to be comfortable with it for two reasons: it means that news articles start with a conclusion, rather than building up evidence gradually as a scientific paper would (Goodfield, 1981); and there is a tendency for unqualified, headline type statements to appear in the first paragraph, with details and qualifying statements relegated to the later sentences which are most likely to be cut (Anon, 1986).

The sentence structures and vocabulary of news articles are influenced by their limited word length, and there is no room for unnecessary waffle. Hodgson (1992) summarised the basic rules of news communication under ten headings: go for the shorter word where there are alternatives; avoid foreign or little-used words; avoid excessive use of adjectives and adverbs; avoid excessively long sentences; avoid lesser used tenses where possible; beware of jargon; avoid parentheses; banish cliches; keep punctuation simple; keep paragraphs short. It is possible to write science and medical stories which follow these rules, but scientists may be uncomfortable with news-style language, for example when a technical term is replaced by a shorter word with a less precise meaning.

#### 3.7.2 Striving after objectivity

It is a particularly strong journalistic tradition in the USA that balance in a story is conveyed by providing "on the one hand" and "on the other hand" points of view. This style shows a patina of fairness, and, if enough "hands" are quoted, evidence of effort on the part of the journalist (Anon, 1986). Journalists may consider themselves satisfied if they have sought out several viewpoints and reported their respective proponents accurately. From the point of view of scientists and interested readers, however, this approach has several drawbacks. As noted in 2.4.7, it means that readers are seldom provided with any evaluation of the relative merits of competing claims, that fringe

positions presented in the media are not necessarily recognised as such, and that journalists tend to take a polarised approach and emphasise conflict.

Opinions vary about the extent to which journalists should consciously include their own views in articles, and whether they should be identified as such. As mentioned in 3.6.1, it is possible that they seek out sources who will put across the point of view they themselves prefer. Perhaps few journalists are now naive enough to think they can report an issue or event "objectively": it is generally understood that their own sympathies will inevitably affect in some way the story they construct.

### 3.7.3 Headlines

Headlines serve primarily to draw readers' attention to a story, but their contribution to the overall visual impact of a page is also important. Headline length is determined more by layout considerations than by the number of words in a preferred title. Even in quality newspapers, where headlines can be longer because smaller type faces and lower case letters, are used, it is a challenge to write appropriate headings which fit, look right and are ready in time to meet a deadline (Hodgson, 1992).

Headlines are rarely written by the journalist who wrote the text: they are the province of sub-editors, who may not understand scientific and medical subject matter as well as specialist correspondents. This causes problems because headline writers are effectively required to sum up the text and suggest an "angle" from which it should be read. Headlines are the final products of a process of condensation and commentary.

In many respects, headlines and titles represent mini-editorials in that they present an interpretation of the reporter's article, which is, in itself, an interpretation of the scientists' research. (Goldstein, 1986).

### 3.8. The role and influence of editors

There are various types of editors within a news organisation: editor-in-chief, news editors, picture editors, sub-editors, night editors etc. Their roles differ, but generally speaking, they all perform news processing tasks, in contrast with reporters who are responsible for news gathering (Tunstall, 1971). The functions of journalists and editors overlap to some extent and several individuals may share responsibility for certain decisions or negotiate the allocation of particular tasks.



### 3.8.1 Story selection and development

Decisions about which topics will be reported and how are often shared by journalists and editors, and it is difficult to disentangle their respective influences because their interactions are complex. News editors may ask journalists to cover certain stories, and journalists with story ideas are likely to clear them with editors before writing an article. However, it seems that science journalists may be relatively independent of editorial control, as they claim more freedom than most to generate their own stories (Kotulak, 1989). Elite American science writers perceived themselves as able to select their own topics 80% of the time (Dunwoody, 1986c).

It is usually editors who initiate changes in story selection for later editions of their newspaper. They value exclusive stories, but also expect specialist journalists not to miss any stories which their competitors might have. Night editors are required to keep an eye on the early editions of rival newspapers and, if they see important stories which are not in their own, may ask journalists to act quickly to get them covered in their later editions (Tunstall, 1971). This has several consequences. Firstly journalists covering the same beat for rival newspapers may be encouraged to cooperate with one another:

Each journalist knows that his editor is watching the competing newspapers and wire services and is evaluating what he produces *in relation to* what the competition publishes. If he produces something different, he may be in trouble: at the very least he will have to defend his choice. But if all competitors produce the same story for the day, then each editor assumes his reporter has done a good job. (Dunwoody, 1986a)

(Competitor-colleagues are discussed in section 3.9 below). Secondly, there is a tendency towards homogenisation of news selection in different media (Aitchison, 1988), emphasising the truth in the saying that news is what other news organisations report.

The extent to which editors influence the choice of sources for a particular story has been little commented on. They probably have little input into this aspect of news production, although journalists' perceptions of their preferences may be influential. As Tunstall noted, specialist journalists' interactions with news sources and competitor-colleagues are largely unseen by the rest of the news organisation (1971).

### 3.8.2 Editing

Science and medical correspondents, like other news gatherers, must relinquish control over the final form in which their article appears to editors. News processing is decentralised, and it is rare that one person gets to "shepherd" a story from interview to print (Dunwoody 1986a). Sub-editors are responsible for checking facts, grammar and



spelling, and ensuring that individual stories fit a given space and balance well with other items on a page. They may thus correct, reword, rearrange and cut varying proportions of a reporter's text. Copy may also be further altered if the story is revised for later editions as new information becomes available (Hodgson, 1992).

Tunstall (1971) suggested that specialist correspondents' work might be less heavily edited than that of general reporters for several reasons: their judgement in the specialist area may be respected; as experienced journalists, they may have internalised the organisation's news values to an extent that alterations to their copy are rarely deemed necessary; and as specialists, their skills are likely to appeal to rival news organisations, so careful editors tend to give them more autonomy.

There is evidence, however, that science journalists in the USA are not always happy with editors' treatment of their scripts. Anecdotes abound of changes or cuts being made to copy which significantly alter its meaning or remove necessary qualifying statements. Science writers resent the lack of scientific understanding on the part of their editors when it causes them, for example, to view scientific features as the "miracle page", to screen articles inappropriately for technical terms, or to insist on definitive explanations when in reality uncertainty prevails (Nelkin, 1987).

### 3.9 Working relationships

Relationships between editors and journalists, and between specialist journalists working for different news outlets are discussed below. Little has been written about the relationships between journalists writing for the same newspaper, although Nicholas et al (1987) noted they often used each other as informal information sources. Relationships between journalists and sources are discussed in chapter 4.

Even though they claim a certain amount of autonomy, journalists may be heavily influenced by their perceptions of their editors' preferences. They are likely to select stories which they do not think their editor will reject, and to write them in a way which ensures they are unlikely to be thought to need heavy editing. Particularly in the early stages of their careers, when they are trying to survive and succeed in the news room, journalists may write more to please their editors than their readers (Friedman, 1986).

Tunstall (1971) coined the phrase "competitor-colleagues" to describe groups of journalists allocated by their respective (national) newspapers to work full time on the same single specific source or subject area. These specialists spontaneously called each other colleagues and to some extent used each other as sources and resources. They

agreed on certain norms of co-operation: they helped journalists new to the field, who were regarded as vulnerable; they shared routine information with each other; and they assisted journalists from media of different frequencies (e.g. daily writers worked with Sunday writers). At press conferences, they would discuss appropriate angles for stories and possibly take notes for each other. However, their attitudes towards closer collaboration varied, and while some journalists developed working partnerships, others tried to avoid meeting colleagues when they were in possession of interesting information. Most specialists expected their editors would disapprove of their co-operation with those with whom they were supposedly competing, and thus tended to keep it quiet.

Tunstall studied correspondents specialising in a variety of subjects, but no science or medical specialists. Dunwoody (1986c) looked at the behaviour of elite American science writers at the AAAS conference in 1977 and 1978. She identified a close-knit informal "inner club" of journalists, who again emphasised co-operation rather than competition. At conferences, they helped each other select stories (e.g. by discussing the potential of topics or scientists) and gather information (e.g. by sharing notes, interviews and expertise in particular areas, and following up each other's questions). Dunwoody felt their practices were advantageous in helping them work efficiently and meet deadlines, and in enhancing the quality and accuracy of stories. Possible disadvantages were that story selection could become standardised and that those areas of science of most interest to members of the inner club might be emphasised to the neglect of others.

### 3.10 The skill and background of journalists

Science and medical correspondents, especially when they first start out, are often not familiar with the methods, values, and achievements of science. Few have studied science subjects formally, although the proportion is increasing, particularly in America (Friedman, 1986; Russell, 1986). The extent to which a lack of basic scientific training is problematic in a journalist is debated. Full-time specialists probably acquire a reasonable grounding in science "on the job", although of course this takes time. Victor Cohn, an established American science writer, claimed that a lack of formal science education never held him back, and that the field of science writing needed people like him "to ask the dumb questions" (Breo, 1989). Journalists with as little scientific background as the majority of their readers are possibly less likely to write pieces



incomprehensible to a general audience. Their own ability to understand the terms and explanation of an article could be used as a guide to pitch the level of difficulty.

On the other hand, journalists untrained in science are ill-equipped to assess the evidence on issues and controversies. They may not be aware of the uncommon meanings given to common words in science discourses, and may be unable to distinguish research papers which suggest a hypothesis which should be investigated from those which present strong evidence on a subject (Cohn, 1989a).

In looking to scientists and doctors for explanations and guidance, journalists may have problems judging the credibility of their sources and discerning the truth-tellers from the cranks. Friedman (1986) and Nelkin (1987) have noted that journalists tend to stand in awe of scientific sources, not considering that they may be as self-serving as anyone else, and assuming that they know what they are talking about. The scientific (in)competence of editors is also a matter of concern.

### 3.10.1 Improving journalists' performance

Attempts to improve the quality of science and medical reporting in the media by providing "training" for journalists need first to decide what kind of person makes the best science or medical correspondent and where best to invest their effort. This section will briefly consider science training for (non-scientific) journalists.

Science and medicine are now such huge disciplines, divided into so many specialist fields that no individual can possibly be an expert in (or even familiar with) all the subjects which science and medical journalists must cover. The kind of scientific understanding which is desirable among reporters is therefore more an appreciation of scientific approaches and methods, and of the kinds of questions which can be asked to help ascertain the validity and strength of particular studies and claims than a detailed knowledge of the state of the art in each field. There have been a few books published which are intended to help journalists improve their performance in these regards. Both Meyer (1979) and Cohn (1989a) urge reporters to adopt the techniques of scientists themselves for evaluating evidence. Journalists are exhorted, for example, to consider study designs, to look for statistical significance, to be aware of variability in human populations, not to assume that correlations imply causative relations, and to look for possible sources of bias or conflicts of interest on the part of researchers.



There are a few "exchange" type programmes, particularly in America, in which journalists spend periods of time attached to scientific researchers, but there are apparently no reports in the literature of evaluations of these.

### 3.11 The role perceptions of science reporters

Journalism is a multi-faceted profession, and science and medical correspondents may have different remits according to the publication they work for. American specialists had varying perceptions of their roles which were likely to affect the way they selected and wrote news stories (Winsten, 1985). A few reflections on the roles, motives and aims of specialist reporters are provided here.

To say that a journalist's job is to record facts is like saying that an architect's job is to lay bricks. True, but missing the point. A journalist's real function - or at any rate his required talent - is the creation of interest. A good journalist takes a dull or specialist situation and makes the readers want to know more about it. By doing so he both sells newspapers and educates people. (Tomalin, 1969, quoted in Goodfield, 1981)

In addition to making subjects appealing, in reporting from a specialist world, journalists often need to serve as translators and interpreters of data, making information intelligible to a lay audience. However, the location of the boundary between making an account readable for the general public and oversimplifying the science is something over which journalists and scientists may disagree.

The notion of public service is present in many journalists' role perceptions:

The science writer and health risk reporter must never lose sight of the fact that he or she is attempting to provide the sort of information that will help people cope with an increasingly complex world. (Kotulak, 1989)

The task, however, is complex and full of tensions:

The way we report a medical or environmental controversy can affect the outcome. If we ignore a bad situation, the public may suffer. If we write "danger", the public may quake. If we write "no danger", the public might be falsely reassured. If we paint an experimental medical treatment too brightly, the public is given false hope. (Cohn, 1989a)

Some journalists are keen to incorporate health promoting messages into their articles where possible, attempting to educate the public whenever they are given the chance to bring a particular topic into the news. Winsten (1985) quoted one journalist thus:

While you have the public's attention, I think you have both an opportunity and a responsibility to really take advantage of it and drive home as much useful information as you possibly can.

Some journalists - Goodfield (1981) suggested the British more so than the American - may be willing to adopt the role of advocate for science. Others regard the opportunistic incorporation of ideological messages into news stories as inappropriate:

Journalists are not in the business of sending messages. They are not social workers seeking to reform the personal habits of millions of people. They are in the business of uncovering and reporting what is known about important matters. (Warner, 1989)

Most journalists recognise their influence in determining what is regarded as important and which subjects are brought into the arena for public debate.

Whether we like it or not, we journalists have become gatekeepers. In some measure, our choices of what will be reported and how the data will be reported, set the national agenda vis a vis health risks. (Cohn, 1989b)

Alert journalists also consider how their stories are likely to be received, and how they might affect public or corporate behaviour. They recognise that they can influence official decisions of where to focus activity. For example, media reports of suspected adverse drug reactions can influence the actions of regulatory authorities (Inman, 1987) and media support for environmental campaigns is highly valued by pressure groups. Knowledge of their influence may well contribute to journalists' wariness of being "used" by interested parties (Phillips, 1988).

As well as informing, educating and exerting political influence, journalists may adopt to some extent the role of entertainer. It is when writing predominantly from this stance that they are most likely to irritate scientists by their trivialisation of science subjects.

#### 4. Influences on media news (2): sources and source-journalist interactions

Various organisations and individuals have vested interests in controlling the availability and interpretation of information about issues in which they are involved, and their efforts in this regard are likely to contribute to the shaping of news. This chapter summarises recent literature about the media relations activities of source organisations and explores various aspects of source-journalist relationships in the fields of science and medicine.

##### 4.1 Academic research and media relations

Until recently, academic studies of news production tended to focus on the news gathering and news processing activities of journalists and editors. Although many textbooks for public relations practitioners and campaigners described in detail how media relations should best be conducted, interactions between the media and those who serve as their subjects and sources were largely neglected in academic studies.

During the 1970s, several American scholars noted the influence of politicians and other interest groups on the press corps (Sigal, 1973; Molotch & Lester, 1974; Paletz & Henry, 1978). Gandy (1980) argued that the routine channels via which the media received information were heavily subsidised by organisations wanting information presented to suit their interests. Health information, for example, could be subsidised by institutions competing for federal research money and pharmaceutical companies seeking favourable news. Gandy pondered the extent to which such subsidised information could be identified and envisaged plotting its movement from sources to targets. He did not report actually having conducted any such research.

Sachsman (1976) studied the influence of public relations activity on environmental coverage in San Francisco newspapers by asking journalists to record details of the news releases they were sent and then, retrospectively, to recall their sources of information for published articles. He was able to estimate the proportion (just over 50%) of environmental coverage influenced by public relations material, but did not investigate the nature of source-journalist relations from a sociological perspective. This was typical of early studies of source-journalist interactions, which were basically media-centric in that they failed to consider the relationship between source organisations and the media from the sources' viewpoints (Schlesinger, 1991). One exception was Greenberg's (1985) case study of Friends of the Earth, which investigated the environmental group's



motivations, strategies and tactics for obtaining favourable media coverage by, among other means, interviewing its representatives.

It was Ericson et al (1989) and Schlesinger et al (1991) who broke firmly away from these approaches in their studies of the interface between sources and journalists in the field of crime and criminal justice. Ericson et al conducted extensive field research to examine the interactions of sources and journalists on police, court and legislature beats, and interviewed media sources from different institutions on these beats. Schlesinger et al also interviewed various news sources and used content analyses to assess the space allocated to the views of different groups and individuals.

Little research has been done on the nature of source-journalist interactions in scientific and medical areas. Nelkin (1987) focused on an aspect of science journalism "seldom discussed" when she considered science journalists' sources of information and the influence of scientists themselves on media images of science and technology. The strategies used by environmental pressure groups to gain media attention have been investigated by Greenberg (1985) and Anderson (1991), and Hansen & Dickinson (1992) considered scientists' roles in initiating stories, but the press relations activities of organisations involved in medical research have not been systematically studied.

#### 4.2 Negotiation of news

Ericson et al (1989) and Schlesinger et al (1991) confirmed that both sources and journalists are influential in shaping news, and that their interactions affect both the events and situations which are reported and the preferred meanings attached to them.

News is a product of transactions between journalists and their sources. The primary source of reality for news is not what is displayed or what happens in the real world. The reality of news is embedded in the nature and type of social and cultural relations that develop between journalists and their sources, and in the politics of knowledge that emerges on each specific news beat. (Ericson et al, 1989)

The stakes in negotiations can be high. News reports do not portray events and issues neutrally, and the interpretations they convey can powerfully influence the environment in which organisations and individuals operate. The meanings journalists attach to situations and events are thus of great concern. It is not enough for sources that they and their interests appear in the media, they want also to appear in a positive light, with their public side shown to the public and their private side kept private. Ericson et al (1989) used the term *media access* to describe the situation when sources obtained news space, time and a context in which to favourably represent themselves and their position. In

contrast, media *coverage* referred to the securing of news space and time, but not necessarily a context for favourable representation.

#### 4.3 Motives for seeking media access

Organisations may have specific reasons for seeking media access for themselves and their interests, depending on their goals, ideologies, current position and publics. These may change over time, as Schlesinger et al (1991) showed in the case of several corporate actors in the field of crime and criminal justice. Medical and scientific organisations and individuals might seek: to gain a high public profile; to secure funding; to create and maintain a good image; to market products and services; to inform the public; to influence public opinion; to convey health-promotion messages; to secure political action; and to help individuals in particular need (e.g. by publicising a need for organ donation). Priorities will vary. The pharmaceutical industry, for example, is apparently extremely concerned to improve its public image (Chetley, 1990), and may use stories of "medical advances" to generate demand for particular products (Nelkin, 1987), but is unlikely to seek media access in an attempt to attract funding for research.

Differing reasons for seeking media access may lead organisations to adopt different media relations strategies. If journalists are aware of organisations' motivations, these may influence their decisions of whether to cover them and their interests, and in what context to portray them.

#### 4.4 Organisational media relations strategies

The role, size, status and credibility of an organisation may influence the chance of it securing media access. Schlesinger et al (1991) noted that government departments have an advantage in the competition for news space because they initiate much activity (and are thus the first to know about it), and they routinely disseminate official information. They form an elite among organisations. Long term pressure groups, which often become somewhat institutionalised, may also fare well in terms of media attention because they form part of the policy making community and tend to have a broader base of support than new organisations formed in response to specific circumstances.

The strategies and tactics used to gain media access may be influenced not only by an organisation's reasons for seeking publicity, but also its status and credibility in the public domain, its resources, ideologies and patterns of activity. Anderson (1991) described the different approaches of two voluntary organisations campaigning on



environmental issues. Greenpeace concentrate on producing film footage and visuals of their dramatic actions and send these straight to news desks, often by-passing media environment specialists. Friends of the Earth invest effort into research before they start campaigns, and try to establish firm relations with environment correspondents, among whom they have a reputation for producing well researched, reliable reports. The differing natures of the two organisations make different media relations strategies appropriate. (N.B. Not all organisations formulate explicit media relations strategies).

#### 4.4.1 Types of media relations activity

Media relations work includes a mixture of proactive and reactive activities, defined according to whether the source initiates contact with the media or responds to journalists' enquiries. Activities can also be classified in terms of censorship, publicity, secrets and confidences (Ericson et al, 1989), some combination of these four being used by sources to control what information is disclosed and what remains enclosed.

The channel by which information is communicated is important. For example, scientists may *speak* more enthusiastically and less cautiously about their work than they would write for academic publication:

Many scientists go much further in news conferences than they are willing to go in their articles. (Cohn, 1989a)

Written communication in the form of press releases may also be prone to exaggeration:

Too many press releases tout articles that read far more conservatively than the PR version. (Cohn, 1989a)

Media relations officers can use their knowledge of how journalists work to promote the interests of their institutions (Nelkin, 1987). They appreciate, for example that news conferences can be effective in achieving media coverage because journalists whose competitor colleagues attend may feel pressurised to write the story since it is likely to appear in rival newspapers. The traditional channels of contact between sources and journalists (news releases, news conferences, news briefings, invitations to events, offers of exclusive stories and informal discussions) will not be described in detail here. The basic pros and cons of each and the types of information for which they are appropriate are outlined in most public or press relations handbooks (e.g. Jefkins, 1992).

#### 4.5 The various meanings of "source"

Organisations and individuals can serve as "sources" for the media in several ways. Mcquail (1992) distinguished three basic meanings of the term "source". Firstly, society



in general functions as a source in the sense that it "provides the essential background and subject matter of most media content". Secondly, various active "voices" in society, advocates of particular ideas or interests, seek to use the media to reach audiences with a message. Classic examples of these include the "Hollywood lobbyists" who seek to convey their messages through entertainment media (Montgomery, 1988), but it should be noted that media representatives themselves can serve as sources in this sense. Lastly, there is a more technical meaning: news sources. These are the official spokespeople, news agencies and other providers of information who serve as journalists' contacts.

Research concerning news sources has tended to investigate the frequencies with which different types of source (e.g. government officials, commercial organisations, voluntary groups) are cited in news outlets, highlighting purported under- or over-use by journalists of particular interest holders. Clayman (1990) conducted a rare study of how sources are actually used, focusing on the contexts in which source's comments were embedded in the news texts. Consideration of the various ways in which organisations and individuals can serve as news sources seems to have been left largely to press relations manuals, although Ericson et al (1989) focused on "the ways in which various source bureaucracies organise to communicate through the news media". Partly on the basis of their work, I propose that from the point of view of news journalists, a fourfold division of source roles can be identified:

- Proactively supplying information about events and situations from which journalists can select and report news
- Providing background information, helping journalists to understand concepts, events and situations
- Stating that something is so from a position of recognised authority to know
- Commenting on other sources and their viewpoints from another position of recognised authority to know

Organisations and individuals might serve as sources of their own initiative or at the request of a journalist, and they may or may not remain anonymous. Some sources are regularly used as part of an established news beat, while others are in less frequent contact with journalists. In cases where journalists build stories from various pieces of written or recorded information, those "providing" the information may be doing so unknowingly. Jamieson & Kohrs-Campbell (1992) provide some examples of these source roles, and also remind the reader that there are various physical communication channels between journalists and sources, including face to face and telephone conversations, press releases, copies of documents and so on.

#### 4.5.1 Alerting journalists to potential news

By informing journalists of events and situations, sources effectively work as reporters themselves, signposting the way to what is newsworthy. Organisations and individuals are presumably differently motivated and equipped to perform this function. Those with a high profile and who initiate events or generate new information are probably most strongly placed to signpost journalists to news in which they will feature.

There is concern about the extent to which sources "manufacture" news for journalists. Phillips (1988) noted that the news media are bombarded with advice, suggestions and information from special interest groups which try to persuade reporters to use a particular story and present it from a particular angle. Thoughtful sources presumably adopt the general principle that journalists are more likely to take notice of something if it obviously has news potential. Tavis (1986) advised scientists:

You can increase the chances of getting your research into the news by portraying it as news, or as the resolution of a controversy, or bearing on a controversy, even if you have to manufacture a controversy.

Others are concerned that the tactic of providing strong stories to appeal to drama-seeking journalists might encourage the kind of science coverage they do not like. There are objections to alerting the media to certain types of information, such as early research results, particularly by channels which pressurise them to publish it. Winsten (1985) lamented the way in which journalists were encouraged to report tentative and subjective results from a preliminary trial of a new treatment for Alzheimer's disease which had involved just four patients. The fact that a press conference was called effectively defined the information as a story for journalists.

#### 4.5.2 Background information

Some scientific and medical organisations are less likely to regularly and successfully serve as sources by alerting journalists to news than to provide background information, statements or comments from a position of authority to know. Hansen & Dickinson (1990) argued that science often "gets drawn into media coverage by an agenda which is set outside the scientific community". Thus although some aspects of science are considered newsworthy in their own right, scientists are more often thought of as resources able to shed light on current events (Goldstein, 1986).

While journalists may use their own resources such as cuttings files and reference books for background information, they may also seek help from personal sources. Obviously sources perceived as knowledgeable, reliable, and willing to help are most



likely to be asked for explanations or background information. Since attribution of background information is not always considered necessary, the name and status of a source might be unimportant in this situation. Tunstall (1971) noted that journalists preferred oral sources of information, because they were less obviously widely available. Presumably even conversations initiated to clarify background information have potential to provide journalists with an unusual slant or novel story idea.

#### 4.5.3 Authoritative statements and comments

News is made credible mainly by people socially recognised as being in a position to know, so journalists need sources who can provide authoritative statements and comments about the issues and events they report. Expert sources are implicitly trusted and absolve journalists from the need to investigate further. They may also be used as voices to convey views which journalists are unable to state themselves (Phillips, 1988).

Despite the rise of vox populi journalism, it is inconceivable that a mainstream newspaper would cite only men or women on the street (Ericson et al, 1989). The lay people involved in a particular event may be asked to recount their experiences, but more often it is people who have experienced the event professionally who are asked to provide authoritative statements or comment. For scientific and medical stories, the authorised knowers are usually professional scientists and qualified medical doctors.

In keeping with the tenet that presenting two sides of a story makes for good journalism, authorised knowers with divergent viewpoints may be juxtaposed in an article and representatives of one organisation may be asked to comment on the actions or opinions of another. Conflicting scientific interpretations may be "useful" to journalists in this sense, although they are likely to be difficult to evaluate, particularly if vital information is, as is often the case, simply not available (Nelkin, 1987).

### 4.6 Sources of authority

#### 4.6.1 Affiliation

Various people have suggested that the media's authorised knowers tend to be key spokespeople for recognised establishments, be they government departments, professions, commercial organisations, or academic institutions (Ericson et al, 1989; Schlesinger et al, 1991). Schwantes and Lemert (1978) demonstrated experimentally that journalists gave group sources greater access to the media than unaffiliated individuals, being more likely to include them in a report and allocating them more space and



priority in the story order. Organisational affiliation is important because individuals tend to be "placed" by their jobs and employers, and the credibility or otherwise of an organisation may be transferred to its representatives. Unaffiliated individuals are not excluded from media coverage, but they constitute only a small minority among sources and tend to be cited either in designated places, such as letters to the editor columns, or for specific purposes, e.g. to provide emotional personal viewpoints about a tragic event (Ericson et al, 1989).

Certain types of organisations may be preferred as authorised knowers for particular subjects. Journalists covering environmental risks may approach government regulators, industry officials and environmental advocacy groups (Salomone et al, 1990), all of which could be key players in the particular story.

#### 4.6.2 Qualifications and titles

Journalists often adopt a medical paradigm when covering health and medical issues (see 2.3.1). One feature of this is a focus on doctors as legitimate sources of authority (Karpf, 1988). The title "doctor" indicates a person has formal qualifications and generally signifies authority and trustworthiness. The media may fail to establish whether the title was conferred after qualifying in medicine or obtaining a PhD, although the former is usually assumed.

While doctors are still generally well regarded in the public eye, the labels "scientist" and "researcher" may conjure up all sorts of unfavourable images because of the various literary stereotypes which abound (Haynes, 1989). However, journalists have tended to regard scientists as neutral, trustworthy providers of truth (Nelkin, 1987), and although there is some evidence of a move away from this (Cohen, 1991), almost unquestioning acceptance by journalists of what scientists say must be regarded as the current norm.

Entwistle & Hancock-Beaulieu (1992) found 30% of UK broadsheet articles about health and medicine and 22% of UK tabloid articles quoted medical, health or scientific professionals, while just 5% of broadsheet articles and 17% of tabloid articles quoted patients or health subjects. The lay viewpoint is not excluded from media medical stories, but is confined to a limited number of contexts (see 2.3.2).

The doctors and scientists quoted in the mass media are often high-ranking, "visible" people (Goodell, 1977). There are several reasons for this. Titles such as professor and director lend credibility and authority, and from a journalist's viewpoint, the higher the rank and more senior the title, the better. Senior people are also usually easier to locate:

organisations tend to select their spokespeople from among senior personnel (Wragg, 1993); they are more widely known and more likely to be listed in Who's Who type publications; they are less likely than their juniors to be moving from contract to contract and place to place. Within scientific and medical communities, senior people are generally well respected, and, as in other settings, possibly thought of as more qualified to speak. If "going public" is frowned upon in a particular situation, it is the young doctors or scientists with careers at stake who have most to lose from talking to the press and incurring the displeasure of their colleagues (Dunwoody, 1986b). Individual motivations to deal with the press are discussed in section 4.8.1.

The possible problems associated with repeated use of a small number of high ranking doctors and scientists as experts are that a limited number of (conservative) viewpoints may be expressed, and that these people may be tempted to speak on specialist areas of science which are not strictly within their sphere of competence (Russell, 1986).

#### 4.6.3 The media

The above discussion has focused on organisational affiliation and professional qualifications, but the media themselves can to some extent confer authority to know (Ericson et al, 1989). Sources who have spoken eloquently (in media terms) on a subject may be used repeatedly: the very fact that the audience has heard of them encourages journalists to use them again and capitalise on their familiarity. Journalists tend to note the names of those who appear in the media, and once someone has been designated an expert by the press they are likely to be used again. Indeed, statements or claims might even derive their newsworthiness from the person making them (Friedman, 1986).

#### 4.7 Sources and journalists: the balance of power

Although it is agreed that sources and journalists both have a role in determining which events and issues become news and what interpretations or meanings are given to these, the balance of power between the two groups is difficult to establish. It is a complex question, almost impossible to answer in general terms. Ericson et al (1989) studied sources that differed in the way their media relations were organised and concluded that as far as the defining and framing of news was concerned:

There is considerable variation in who controls the process, depending on the context, the type of sources involved, the type of news organisation involved, and what is at issue. It is a matter of who wants to control whom via news accounts, and how all the sources and news organisations involved see themselves fitting into the picture.



The respective influences of media and source representatives may be particularly hard to disentangle when specialist journalists are in regular contact with certain organisations or professions. Media relations officers who deal regularly with journalists come to know what they need and prefer, and shape their accounts accordingly.

Every journalist learns through a vocabulary of precedents what constitutes a reportable account, and he in turn develops a vocabulary of precedents with his sources so that they give him an account that is reportable. (Ericson et al, 1989)

Journalists may become socialised into the culture of their regular sources, so their understanding and values converge (Tunstall, 1971; Ericson et al, 1989; Hawkes, 1992).

The media can and will carry messages about organisations whether they like it or not, so non-co-operation with journalists is not usually an option. A source who remains silent can have no input into or control over an account, and the media may well portray the silence as evidence of impropriety (Ericson et al, 1989). Silent sources also risk seeing antagonistic organisations with opposing views monopolise media discourse. Scientific and medical communities are becoming increasingly aware that if they do not speak they will leave the field open for the many anti- or non-scientific voices in contemporary society to supply the media and the public with misinformation.

Unless reputable scientists supply accurate information to the popular media, the public is left at the mercy of the charlatans, the sensation mongers, and of exposes by anti-intellectuals. (Miller, 1986)

The issue of animals in medical research is one in which the silence of scientists (which is often encouraged by threats of violence from the animal rights movement) is increasingly seen to be problematic. The British Association (1993) among others has pointed out that if scientists do not contribute to informed debate, misinformation takes over, and this can have serious implications since "support for research, both from government funds and the medical charities reflects wide sympathy for responsible medical research". Thus organisations and individuals, even if they do not have the inclination or resources to undertake proactive media relations, should at least aim to be able to react effectively to media requests for information and comment.

Some aspects of the process of defining and framing news are more likely to be under the greater control of either sources or journalists. Sources are relatively autonomous in deciding what information to disclose and what to keep private. News organisations can usually deny a source access, sustain coverage which puts a source in a negative light, translate specialist knowledge into common sense, and have the last word.



#### 4.8 Individuals within source organisations

The source-journalist relationship has been discussed in very general terms thus far, but it must be stressed that it involves individuals working for organisations whose ideologies, goals, situations and activities impose different constraints on them and who may have diverse roles and positions, motives and characteristics. While media relations officers are primarily concerned with communicating about the organisation, scientists, doctors and managers have different priorities. Although they may all in a general sense subscribe to organisational aims, their views are likely to differ and some tension would seem inevitable.

##### 4.8.1 Scientists and doctors

Scientists and doctors may hold differing opinions about the importance of communicating with the public and the roles of various media channels in that communication. However, to active researchers, communicating science to a lay audience is normally a secondary concern to that of conducting research. Their communication priorities tend to be publication in academic journals, presentation of papers at conferences and other formal or informal communication with their peers.

Dunwoody (1986b) noted that scientists serving as media sources risked incurring disapproval from their colleagues and harming their professional standing. They could benefit by: the satisfaction of increasing public understanding; public recognition; possible approval from senior (non-scientific) personnel in their employing organisation; political recognition which might help them obtain funding; and peer recognition in that the wider scientific community gets to hear about their work. On balance, Dunwoody suggested scientists were better off avoiding the media until they had "made it" professionally and could speak to journalists without fearing peer reprisals.

The attitudes of individual scientists and doctors to dealing with journalists range from extreme distaste to over-enthusiasm. Those reluctant to deal with the media may be so because of suspicions grounded in previous bad experiences (their own, their colleagues' or those heard of on the grape vine). Some have ambivalent attitudes towards the press; perhaps seeking media coverage of their work and developing media relations activities, but still mistrusting journalists and complaining that they are misrepresented in inaccurate or sensationalised reports. Others do not think media relations important enough to warrant their precious time and effort (Russell, 1986).

In the early twentieth century, there was much reticence on the part of scientists and doctors to co-operate with the media. Such behaviour was thought to smack of self-promotion and the ethical codes of several professional medical associations discouraged dealings with journalists (Steven, 1963). Even modern codes have some restrictions (see 4.9.2) and hostility towards publicity lingers in the profession. There are various reasons for suspecting that such hostility could be on the decline. Professional organisations such as the BMA and the Royal Colleges themselves become more willing to speak to media representatives about clinical and ethical issues (Taylor, 1991; Shandwick Consultants, 1987). Changes in the N.H.S. and the introduction of the Patients' Charter have made good media and public relations seem more necessary, and a younger generation of doctors is appearing who are more familiar with a media-filled world.

Among suggested explanations for the apparent increased willingness of scientists and doctors to co-operate with the media, the financial one has featured strongly:

Increasing dissemination of science in the lay press and scientists' recognition that the public is not only interested but also paying for much of their research has helped create a new generation of researchers who are more responsive than ever before. (Russell, 1986)

The increasing number of media relations officers working in scientific and medical organisations could also have contributed to the trend of increased co-operation. Their presence might cause people to recognise that the organisation regards media relations as important, and they may both convince researchers of the importance of talking to the media, and reassure them that the experience need not be traumatic.

Overly co-operative scientists and doctors may see publicity as a way to enhance their reputation, their financial situation or their favoured cause. Their excessive media relations activities may be problematic if they draw journalists' attention away from other potentially valuable issues or exaggerate their claims beyond what is justified.

The sometime villains on all sides - whether they work for government, industry or environmental groups - are scientists who make sweeping judgements on the basis of incomplete and hence inadequate data, emphasise their own views and suppress or minimise conflicting evidence. (Cohn, 1989b)

Perhaps the best expert sources are those with no particular axe to grind, who are not trying to sell their own work at any cost, and who genuinely want to help journalists prepare science and health stories for the public (Russell, 1986).

Most people writing about relations between scientists and journalists are optimistic, but there are exceptions. Albert (1992) still thought the need for medical scientists to put their findings across to the public was "bedeviled by mutual suspicion and stereotyping"



between researchers and journalists. A proportion of doctors and scientists will probably always be dissatisfied with the way journalists report them since on controversial issues different groups are portrayed as if in a "public tug-of-war" (Russell, 1986) and media outlets often appear to support one team more than another.

#### 4.8.2 Media relations officers

Media relations personnel in different organisations may have different remits, and individuals are likely to perceive their roles differently. Ultimately, though, they all work for their organisations and are trying to optimise media coverage of their affairs.

The duties of a media relations officer might include issuing information to the media, targeting proactive activities, organising media events, setting up interviews between journalists and organisational representatives, and training personnel so they perform well during media interviews. Depending on their seniority, they might have a say in their organisation's media relations policy and strategy. Whether or not media relations personnel may themselves be attributed in print or on air varies with the organisation. There is probably a balance to be struck somewhere between a media relations officer who simply funnels all enquiries to managers and specialists and one who handles all enquiries without offering the option of an "expert" opinion. Managers, researchers and media relations personnel may disagree as to where this balance lies!

There is something of a dearth of information about the backgrounds and training of media relations officers in organisations which conduct research, particularly in the British context. Rogers (1986) noted the paucity of information about the actual background and skills of scientific media relations officers in America when she considered their roles, although she deduced some of the skills they required to carry out their work as advisers, communicators and facilitators.

#### 4.9 Factors inhibiting open media relations

Nelkin (1987) and others have noted that medical and scientific communities are taking an increasingly proactive role in media relations, making information about their work more readily available to journalists and ensuring that the media are told what they, the experts, want them to see in their work. However, various constraints restrict scientists' and doctors' co-operation with the media. Apart from pressures of time, individual attitudes and pressure from colleagues, which have been mentioned above, organisational, professional and legal regulations may all have an impact.



#### 4.9.1 Organisational constraints

Different organisations restrict access to different types of information to different degrees. Ericson et al (1989) suggested that information generated in the "back regions" of an organisation (spaces "open only to the purview of those who are officially authorised to be there") is typically kept secret from the media or may be subject to censorship. Journalists may be given information in order to help them assess a situation, but would be required not to publicise this more broadly. The extent of the back regions of an organisation and the degree to which access is restricted vary. Ericson et al found, for example, that prisons in Canada were "relatively closed institutions for the purposes of news", courts were less closed, and the police had become relatively open.

The recent political climate in the UK, with its emphasis on citizens' rights and public accountability, has possibly encouraged organisations, particularly those in the public sector, to be more open with their information. Charitable organisations which rely on donations from the public have always been aware of the need to appear open and to keep contributors informed how their money is spent. Commercial organisations are typically less open, guarding information to maintain a competitive edge and "commercial secrets".

There are interesting tensions concerning access to information about research in different organisations. Although science is often portrayed as a collaborative enterprise, the prestige attached to being the first to discover or report something means that different (rival) research teams may try to keep information to themselves until their work is ready to be published or patented. Publication in a peer review journal makes information fairly readily available. Information published in patents is also accessible to those who take the trouble to find it, but there are restrictions regarding its use which work to the benefit of the organisation or individual holding the patent.

#### 4.9.2 Professional constraints

Restrictions on doctor-media relations have been relaxed in recent years. The BMA, recognising that doctors have been increasingly brought into contact with the media because of the huge public interest in health matters, stated:

Those doctors able to comment authoritatively on medical subjects should be prepared to do so in order that the public may be informed. Those doctors able to help the public with information should regard it as an extension of their medical practice. (BMA, 1984)

Doctors are also specifically charged to alert producers, editors or other media representatives whenever a subject under discussion is controversial.

Ethical codes for doctors aim to protect patients and to limit the benefits which individual practitioners may gain from media coverage. Doctors are obliged to maintain patient confidentiality and exhorted not to make themselves publicly known in order to gain extra patients or financial advantage. They have also been required to refrain from commenting critically on other doctors:

It is improper for a doctor to disparage, whether directly or by implication, the professional skill, knowledge, qualifications or services of any other doctor, irrespective of whether this may result in his own professional advantage, and such disparagement may raise a question of serious professional misconduct. (General Medical Council, 1987)

This clause has prevented doctors from speaking publicly about research conducted by other doctors which they thought unethical, although non-clinical scientists in the same situation did not share the doctors' reticence (Campbell, 1989). Recent cases of whistle-blowing (which more often concern standards of medical and nursing care than research) have caused the General Medical Council to reconsider its stance (Doyal & Cannell, 1993) and concede that there may be circumstances when doctors should not protect colleagues from the consequences of their mistakes (General Medical Council, 1992).

A greater willingness to speak to the media might be found among scientists and researchers than practising doctors because not only are they not constrained by professional regulations, they do not have clauses forbidding whistle blowing written into their contracts as is increasingly the case among doctors (see Greene & Cooper, 1992). However, scientists still face the constraints of peer pressure (Dunwoody, 1986b), and under certain conditions might be discouraged from discussing their work with the media by the policies of the journals in which they publish their work (see chapter 5).

#### 4.9.3 Legal constraints

The UK has no freedom of information act and problems of access to information are still lamented in some areas. Government departments are particularly affected by the Official Secrets Act, the power of which lies, according to Wallace (1991),

... not in the number of people prosecuted, but in the ethos of secrecy and fear which it ingrains in the minds of civil servants, all of whom are required to "sign" the Act as part of their terms of employment. If saying anything puts your job at risk, it is easier and better to say nothing.



Wallace also noted that recent case law has made the private law of confidence an accepted means of restraining the publication of official information, and that the Law of Contempt and the Public Records Act also tend to reduce access to information.

#### 4.10 Tensions between science and journalism

Science and journalism are often said to be mutually dependent:

Science relies on the media to inform the people, while the media relies on scientists for news. (Goodfield, 1981)

Their relationship, however, has often been stormy and their compatibility called into question despite certain similarities. Although both claim to be seeking after truth, and both place a high value on accuracy and understanding, their characteristics mesh uneasily together. Medical science and journalism cannot be fully characterised here, but the sources of tension between them will be briefly summarised, and some key points of difference offered as explanations for the various difficulties of medical journalism.

Scientists and journalists have different professional norms and working practices, and are subject to different external pressures. The rules of publication and standards of evidence are very different for scientific journals aimed at an audience of specialists and news reports intended for lay consumption (Moore, 1989). Scientific publications are intended, among other things, to lay work open to comment and criticism from the research community. Communication between medical scientists is extremely important if consensus is to be created in the public domain (Ziman, 1978), and in order that informed judgements may be made, research reports must be comprehensive and detailed. In journal papers, researchers strive to be informative, precise and accurate, and not to extrapolate irresponsibly. To a journalist, this may seem like nit-picking which encumbers the research with so many qualifications and exceptions that the results appear meaningless (Tavris, 1986). Journalists' writing is judged (among media colleagues) by different standards, and brevity and simplicity are valued. The careful documentation and precautionary qualifications which scientists find necessary must be omitted (Nelkin, 1989). Communications for peers and laity have different vocabulary requirements. Among researchers, efficient communication requires technical words with precise and specialised meanings. Such jargon is useless for journalists or the lay public.

Science has more rigorous standards of evidence than journalism, requiring that results are verifiable by other persons and that the validity of claims is made clear. Peer review is seen as desirable before results and interpretations are publicised beyond the research



community (see chapter 5). In journalism, anecdotal evidence is acceptable as news, and even respected journalists may report almost anything which they hear someone say.

There is a tension between the vulnerability and tentativeness of scientific data and journalists' need for hard news (Goodfield, 1981). Science is cautious in its statements and slow to make major assertions. Scientists admit that most research studies have flaws, some unavoidable, and regard an evaluation of the limitations of a study as a positive attribute of a scientific paper. For journalists, in contrast, strong assertions make good stories, while qualifying words and limiting statements water them down. Journalists are thus more likely to overstate than to exercise caution in what they say. It is difficult to satisfy both scientists and journalists with regard to the timing of release of information to the public. Essentially the quest is for a time when research results are new enough to satisfy a journalist's needs, but also tested enough for a scientist to be comfortable about releasing them into the public domain (see chapter 5).

Science tends to be conservative of past achievement because cumulative, confirmatory evidence strengthens hypotheses. Researchers become more confident as results are reviewed and confirmed. To journalists, however, certified and established ideas are old news, far less appealing than new and dramatic research, however tentative it may be (Nelkin, 1989). The scientific process of building upon previous understanding and gradually linking evidence cannot easily be portrayed in news articles, which are traditionally written with the story in the first paragraph so sub-editors can make cuts from the bottom up (Goodfield (1981). From a scientific point of view, if any of the bridges to understanding are cut, the science is incomplete and the "story" collapses.

Scientific evidence takes a while to gather, and research projects do not synchronise with the 24 hour cycle of daily newspaper reporting. Because it is not obviously packaged in daily events, research tends to be reported using news pegs such as the publication of a paper or presentation at a scientific meeting (Burkett, 1973). This is one reason for the criticisms that science reporting does not properly represent the research process.

Journalists traditionally strive towards objectivity by trying to report all points of view fairly. Scientific objectivity requires empirical verification or falsification, not a balancing of viewpoints (Nelkin, 1987). Scientific statements do not have two "sides", and if the opinions of people with different vested interests or working within different paradigms are in opposition, the challenge from a scientific point of view is to probe deep and assess the quality of the evidence behind their assertions (Warner, 1989).

Researchers may prefer to see journalists evaluating viewpoints and guiding readers to judge who is most likely to be speaking the truth. Journalists find it difficult when science does not have all the answers, or when medical researchers are not unanimous. To journalists, clear-cut conclusions make the best stories, and they prefer to report in black and white terms. Non-scientists in search of secure, simple answers may feel sceptical of science if scientists cannot provide them, and it is possible that the image of science in the mass media suffers because of this. There are also problems because journalists are not normally equipped to independently assess scientific merit or to evaluate conflicting assertions (Moore, 1989) or disagreeing experts.

In health and medicine, incomplete or ambiguous information is problematic because many decisions (about treatment, policy etc.) cannot be stalled. Journalists, like decisions, often cannot wait for complete and certain information to become available, and thus researchers must often comment before they feel "ready" with firm answers. Cohn (1989a) talked of the two levels at which scientists must speak: the strictly scientific level as used in research papers when communicating with peers, and the level of ordinary reason required for guidance on daily living.

There is a strong element of competition within medical research, but with few exceptions, scientific social conventions and behavioural norms keep potential conflicts under control (Ziman, 1978). The news media has a penchant for controversy, however, and it is not surprising that examples of bad practice by scientists have been picked up by journalists. Deviant scientists and doctors are no more exempt from the press glare than deviant judges, politicians or royalty, although few science journalists have set out to uncover evidence of fraud or malpractice.

It is not uncommon for a scientific hypothesis to be shown to be wrong. This is not necessarily an expose of failure: it may, indeed, be an indication that the scientific process is working as it should. Journalists can have difficulty understanding the sometimes drastic revisions of science, and may give the impression that science is not really credible by stressing images of scientists unable to agree with each other.

#### 4.11 Improving scientist-journalist relations

Journalism, science and medicine are practised by a variety of individuals with differing aims and ethics. The nature and quality of relationships between representatives of the different professions are influenced by: their organisational affiliations and remits; their perceptions of their own and each other's role; the particular context in which they

meet; and their expectations from received wisdom and personal experience (doctors once bitten by an unscrupulous journalist may be twice shy when it comes to dealing with the next).

There have been examples of co-operative and adversarial, fruitful and less successful relationships between researchers and journalists. An improved understanding on the part of all parties of the needs and constraints of the others is widely thought to be a key to improving the overall quality of science and medical reporting, and various books, conferences, working exchanges and courses have been set up to encourage this. These cannot be described in detail here, but mention should be made of the COPUS<sup>1</sup> Media Fellowship scheme, which allows scientists to spend time working in a media organisation and to become familiar with how the other side works.

There have also been attempts to help forge links between journalists and appropriate authoritative sources of information. The Media Resource Service, described in section 3.6.2 is a good example of this. Media relations officers in many organisations also see this as a major part of their role and could be key figures in initiatives to improve the quality of news coverage.

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1. Committee on the Public Understanding of Science.



## 5. Peer review journals and the lay media

Peer reviewed journals are often used by specialist journalists as sources of news stories. Entwistle & Hancock-Beaulieu (1992) found that 153 out of 1870 articles (8.2%) about health topics in the UK quality press acknowledged a journal source. 116 of these (75.8%) used articles from either the *Lancet*, the *British Medical Journal* (BMJ), *Nature* or the *New England Journal of Medicine*, all prestigious, "general" journals.

This chapter briefly reviews the literature concerning peer review and factors affecting the publication of research in academic journals. It considers concerns about the quality of news reports about journal articles, particularly about the timing of publicity, and reviews factors affecting the transfer of information from journals to the lay media.

### 5.1 Peer review

Editorial peer reviewing evolved in a somewhat disorderly way, coming at various times to various journals and for a wide variety of reasons. From the early 20th century onwards, the numbers of papers submitted to journals grew in proportion to the available space, and the need to be selective about what was published increased. Also, as science and medicine grew and branched into more and more specialised disciplines, many editors could no longer be regarded as experts across the range of subjects covered by their journals. Although these two factors often spurred the development of peer review, it was and is used for other purposes as well, including: to select from the many items submitted those which are most deserving of publication; to avoid publishing fraudulent or badly conducted studies; to introduce an element of objectivity into the selection process rather than let the personal preferences of editors prevail; and to gain some consensus from a peer community that published research is indeed worthy of publication and attention, that it is "good" science. The practices adopted by different journals varied in detail, and these differences have persisted. A broad range of ways of employing outside and expert opinion are still described as "peer review" today (Burnham, 1990).

The stated aims of peer review are not always achieved, and despite a general tendency to regard peer review as an authoritative legitimator of papers, few if any editors would claim that their system could guarantee the absolute validity or long term acceptance of what they published. Reviewers are human and can overlook things or make mistakes. New discoveries or advances in technology, surgery or medicine inevitably modify or invalidate reports that seemed perfectly sound when published

(Relman, 1981). It is worth remembering that while peer review is used to select articles for publication, it is also the object of publication:

If we want real peer review - review by every peer world wide and even (why not?) by lesser mortals - that can only be achieved by publishing, and then running a free-for-all correspondence column. (Sharp, 1990)

Peer review has a secure place in medical communities, and although editors have been aware of its weaknesses, these have, until recently, been little discussed.

Most editors of influential medical journals send manuscripts out to review. Although they are well aware of the system's weaknesses, ranging from delay to plagiarism, they have generally been satisfied with the results and have sheltered in the security of a diffused responsibility. (Rennie & Knoll, 1988).

Over the last few years the practice of peer review has been increasingly criticised for various reasons. It can delay publication, it is expensive, and there is potential for bias and ethical breaches on the part of reviewers (Greenwood, 1993). More generally, its methods of examining scientific validity have not been scientifically evaluated:

The arbiters of rigor, quality, and innovativeness in publishing scientific work do not apply to their own work the standards they apply in judging the work of others. (Patterson & Bailar, 1985).

Meadows & Buckle (1992) noted that in British science,

There is little incentive, other than community spirit, for refereeing papers, and the work tends to fall primarily on the most active researchers. Hence, fewer and fewer referees can afford to carry out really detailed assessments of papers sent to them.

The conservatism of the peer review process means that highly innovative ideas can be discouraged. In the past, research which has later proved to be good (even Nobel prize-winning) science has been rejected by editors and reviewers (Greenwood, 1993).

There are apparently no easy solutions and research on the peer review is made difficult by the variety of objectives of biomedical journals, the lack of an obvious empirical "best" method for screening and selecting papers, and the lack of outcome measures (Knoll, 1990). The one major effect of growing concern about the peer review process is that journals have been encouraged to be more explicit about their practices.

#### 5.1.1 Flaws in peer review - a case study

Fairly widespread dissemination of damaging mis-information based on a peer reviewed journal article occurred when the news media picked up a study by Bagenal et al (1990) investigating the survival rates of patients with breast cancer attending the Bristol Cancer Help Centre (BCHC). The journal article suggested that women attending the centre had lower than average survival rates. It was inferred in the media that the



BCHC therapies had been directly responsible for this, and not surprisingly, in response to the publicity, attendance at the centre fell dramatically (Sheard, 1990a). Letters to the *Lancet* published in the two weeks following publication of the study suggested possible biases, flaws and inadequacies in the original paper (Sheard, 1990a; Heyse-Moor, 1990; Wright, 1990). Just over two months later, more detailed criticisms were published (Hayes et al, 1990; Sheard, 1990b), most of which the authors accepted, and the paper was largely discredited. The authors also stated their regret that their paper "created the widespread impression that the BCHC regimen directly caused the differences that we observed in recurrence and survival" (Chilvers et al, 1990).

In this case, mis-information was publicised even though the news reports were reasonably accurate in relation to the journal article. Journalists generally treat peer reviewed journals as credible sources (Cohn, 1989a), and if peer reviewers do not detect problems in article content, journalists are highly unlikely to do so. The impact of publicising mistakes to a wide audience can be enormous.

## 5.2 Publication bias

Peer review is not only problematic when it fails to detect flaws in individual research papers: there are also concerns about the overall patterns of selection and rejection of articles for publication. While it has long been recognised that media output for lay audiences does not simply mirror "reality" and that "objective" reporting is unattainable, it was only during the late 1980s that concern grew in medical circles about the selection of research published in academic and professional journals. "Publication bias" soon became a subject of research and comment as it was realised that factors other than scientific merit or professional usefulness were affecting publication decisions.

Publication bias is manifest in various ways, and there is evidence that editors, referees and researchers all contribute to the distortion. Chalmers et al (1990) identified three chronological stages of publication bias: pre-publication factors influence the undertaking and performance of research in the first place; publication bias depends on referees' and editorial decisions; and post-publication bias affects how published information is received, interpreted in review articles and cited.

Attention here is focused on the decisions of editors and referees, but it should be noted that their manifest preferences also influence authors. A *BMJ* editorial stated that "Clinical research appeals to general readers when it is reasonably conclusive" (Anon, 1980). When editors offer such comments to readers and potential authors, they are



encouraging a certain amount of self-censorship, inviting them to anticipate editorial decisions. Easterbrook et al (1991) found that "investigator failure to submit was more often the reason for a study remaining unpublished than editorial rejection" and that when investigators rated the importance of the study highly, publication was more likely.

### 5.2.1 Selection decisions

In some senses, the biases affecting academic and professional journals, especially those which try to appeal to their readers by being up to date and attention-grabbing, are similar to those news values affecting other media outlets.

Scientific journals, like other media, will tend to publish surprising or otherwise interesting or topical studies which show an association where none was expected, or no association where one was expected. (Charny, 1991)

General news values were reviewed in section 3.5, and will not be further discussed here. Medical journals often have (and openly acknowledge) specialised interests of which they advise authors and readers. They may sometimes also have more temporary topic preferences and emphases<sup>1</sup>. The interests of a particular journal influence and are influenced by its target audience, and criteria for selection are partly based on editors' perceptions of audience needs or preferences. The *BMJ* gives priority to papers on common problems such as coronary disease, breast cancer, stillbirth and rheumatoid arthritis because most of its readers are general medical practitioners (Anon, 1980).

Most quantitative research into publication bias in biomedical journals has focused on bias at the publication stage against studies with negative results (those which do not disprove the null hypothesis) or in which the results are not statistically significant. Mahoney (1977) demonstrated experimentally that referees of psychology journals, when given manuscripts with identical introduction and methods sections, rated studies with negative results lower in terms of publication merit than those with positive results. More specifically, they rated the quality of the methods sections lower in the papers with negative results, although they were the same as those in the positive reports. More recently, in the medical field, Koren et al (1989) showed that of the 58 abstracts concerning foetal exposure to cocaine submitted to the Society for Pediatric Research between 1980 and 1989 for presentation at its annual meeting, 57% (28 out of 49) of

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1. "Editors who seek broad policies and directions for their journals may want to focus on a growth area for a while and then withdraw, for example, or prefer clinical to in vitro work". (Sharp, 1990).

those which showed positively an adverse effect of cocaine on pregnancy outcome were selected, but only 11% (1 out of 9) which showed no significant association. Similarly, Easterbrook et al (1991) following up all clinical research studies approved by the Central Oxford Research Ethics Committee between 1984 and 1987 confirmed the presence of a publication bias in which "studies with significant results were more likely to be published than those finding no difference between the study groups" and furthermore were more likely to be published in journals with a high citation impact factor, and to lead to more than one publication or presentation. These findings are unsurprising in some respects. Negative results "have never made riveting reading" (Minerva, 1983), and statistically non-significant studies are less likely to meet the criteria of journals' ideal articles.

There are other types of publication bias. In a list of potential sources of bias in the *Lancet's* in-house manuscript evaluation, an editor included four points relating to article content: bias against negative studies, bias for or against certain topics or approaches, bias for originality, and bias for the orthodox as opposed to the unconventional (Sharp, 1990). Values may vary between journals. Kleijnen et al (1991) postulated that trials of homeopathic medicine with positive results were more likely to be submitted to and accepted by "alternative" journals, while trials with negative results were possibly more likely to be accepted by "regular" journals.

One final type of bias affecting selection decisions, which is to some extent understandable, but arguably does not further the ideals of scientific progress, is bias against dissent. Alternative interpretations of data offered by co-investigators are not always acknowledged by journals, let alone printed (Cantekin et al, 1990).

### 5.2.2 Information presentation

Editorial preferences not only influence whether results are published but also the way in which data are presented and interpreted. Begg & Berlin (1989) called the latter the subjective component of publication bias. It involves the "biased" opinion of the investigator, usually reflected in the interpretation of results, the tone of the article and the selection of literature cited. An advocacy style, which tends to encourage exaggerated claims, is one element of subjective publication bias.

Enthusiasm and advocacy are integral features of human commitment, and their presence in the discussion section of a publication has a positive influence in stimulating the reader's interest and stirring controversy. (Begg & Berlin, 1989).



However, Begg & Berlin argued that emphasis on statistical significance and an advocacy style are more appropriate to a situation (like that which existed in the early period of this century) where one individual study by itself is expected to produce a definitive conclusion. Nowadays, concurrent studies are often similar, and each investigator is a contributor to the global research effort rather than the author of a unique and conclusive report. Changes in medical practice are rarely justified on the basis of one study.

### 5.2.3 Summary and effects

The "risk factors" for publication bias operate at many levels which can be summarised in the following categories: subject of study; study design characteristics; investigator characteristics; funding source characteristics; strength of study findings; editor preferences; referee preferences; and author preferences. It is beyond the scope of this project to evaluate the various strategies suggested to remedy publication bias, but discussions can be found in articles by Begg & Berlin (1989), Chalmers et al (1990), Dickersein (1990) and Newcombe (1987).

It is difficult to estimate, even crudely, the size of the problem of publication bias, given the available information. (Dickersein, 1990)

Identifying the gaps in published information is not easy. Attempts to estimate the effects of bias at various stages of publication are particularly complicated.

The present system of disseminating research is haphazard and uncontrolled, and we are largely ignorant about its effects on the diffusion of medical information and about the consequences of any change. (Begg & Berlin, 1989)

Publication bias is applied to individual reports of single studies, so the data published in peer reviewed journals should not be accepted at face value. There is a problem if lay people change their behaviour on the basis of a single journal article, as the change may be unjustified and inappropriate in the light of fuller information (Wellings, 1985).

The overall picture given by published articles may also be misleading as an emphasis on statistical significance could lead to an excess of false positive studies being reported.

Temporary prominence may be given to studies that are eventually found, via subsequent replicative investigations, to have false positive results. (Begg & Berlin, 1989)

Publication bias can thus be a serious barrier to dissemination of knowledge and is important because the published literature influences clinical practice and health policy decisions. Investigators and decision makers tend to have a high regard for the medical literature, and to attach much credibility to several journal articles which come to the



same conclusions. Publication bias in favour of positive trials, especially in highly visible prestigious journals, may cause over-estimates of the effects of new treatments or of risk factor associations, and inappropriate decisions about patient management or health policy. If the bias is transferred to lay newspapers or affects the advice given by health professionals, it may also lead to inappropriate decisions being made, or to the adoption of misguided health-related behaviour. For example, the over-representation of positive studies in the published and publicised literature about the effects of cocaine "may lead to distorted estimation of the teratogenic risk of cocaine, and thus cause women to terminate their pregnancy unjustifiably" (Koren et al, 1989).

The effects of publication bias can be compounded because it has a detrimental impact on meta-analyses of data which are based on literature (Stewart & Palmer, 1993). These involve identifying all research projects (usually clinical trials) on a particular subject and combining the results to allow statistical analysis of a larger sample. They are highly regarded because they take into account much experimental data and use sophisticated statistical analyses. The "better" ones take into account unpublished as well as published evidence, but it is very difficult to trace results of unpublished studies (Simes, 1986; Easterbrook, 1987), so a preponderance of significant, positive trials and under-representation of negative trials in the literature can have serious consequences.

### 5.3 Journals as sources of ideas and information

Peer reviewed journals are "good" sources of stories for medical journalists because they are published regularly, contain "new" information in self-contained articles, supply the names of relevant experts for contact, and have authority as sources. The fact that articles have been peer reviewed, despite the shortcomings discussed above, also gives journalists some reassurance about the quality of the research and information: someone knowledgeable about the subject thought the work fit for publication.

An article in a medical journal might come to the attention of journalists writing for lay newspapers in several ways. Journalists might of their own initiative scan the latest issues of particular journals. They might also be actively alerted to particular journal articles by the journal editor or publisher, by an organisation associated with the journal, by the funders of the research, the authors, or an organisation wishing to raise the profile of the subject. Articles from the *Journal of the American Medical Association* and its 9 associated specialty journals which are believed to be interesting for the public are

summarised in a weekly science news packet which contains a selection of brief and major reports and is distributed to major news outlets worldwide.

These reports are written by specially trained science writers/editors and are written in such a way that they may be run exactly as is or rewritten, depending on the recipient's preference. They can serve as the basis for either a shorter or a more elaborate report written by reporters. (Lundberg, 1989)

Other lay journalists might also serve as sources, either directly or via their products.

Just as the transfer of material may be initiated by journalists or interested members of a scientific community, so might the development of a newspaper story based on journal material be a matter of some negotiation between journalists and various sources. Although there is apparently no published research which directly addresses this issue, various guidelines for good practice have been suggested (see 3.10.1).

#### 5.4 Concerns about news reports

General criticisms of science news reporting were discussed in section 2.6. In addition, various criticisms have been made specifically about news reports derived from journal articles. Many of these concern the way the lay media may "misrepresent" the nature and status of the information published in peer reviewed journals, and the timing of the release of information from research communities to wider lay audiences.

##### 5.4.1 The portrayal of journal articles

Generally speaking, researchers publish articles in peer reviewed journals primarily to communicate the results of their work to other researchers and practitioners in their discipline, to establish priority and prestige, and to comment on work already published<sup>2</sup> (Greenwood, 1993). Among their primary audience, journal articles are regarded as more or less cautious offerings for consideration and discussion, which hope to contribute to knowledge on a subject and/or to the process of learning more about it. Readers are effectively invited to evaluate the work for themselves. Scientific researchers and journal editors have noted with concern, however, that the lay media sometimes portray journal articles as authoritative announcements which state the whole "truth" on a matter. This could be a symptom of journalists placing too much faith in the peer

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2. There is also an increasing pressure to publish in quantity because "personal publication records are used as a yardstick of excellence" (Greenwood, 1993). Discussion of this is beyond the scope of this work.



review system and misunderstanding the nature and status of journal articles. Certainly one editor saw the solution to the problem in education for media representatives:

The media consider our papers announcements. We must redouble our efforts to teach them that this is not the case; we publish our work for the scrutiny and criticism of our peers and the appearance of a paper is not the last word on the subject (Golub, 1987)

There are, however, pressures on journalists such that even if they themselves are aware of the tentative status of published research papers, they may find it difficult to convey such awareness in their stories. Constraints such as the lack of print space or air time and the need to produce "strong" news stories encourage the omission of context and of details which might weaken a story. Methodological detail, qualifying statements and caution in drawing conclusions are not often transferred from medical journal articles to newspaper reports (Goldstein, 1986; Singer, 1990). Since it cannot be expected that the average lay newspaper reader will assume modifiers and caveats as scientists do (Golub, 1987), the impression given is likely to be of a piece of research with more conclusive results and more certain interpretations than are really justified.

Previous research also suggests that few media reports about journal articles include references to related studies or provide much background context (Goldstein, 1986; Singer, 1990). This, together with the fact that daily news reports typically deal with single events and thus tend to portray each journal article as complete in its own right<sup>3</sup>, means the scientific view of each research paper as one contribution among many to the understanding of a particular subject area is often obscured. This can create problems for the portrayal and public understanding of the way science progresses.

Journal articles usually include some discussion of the merits and weaknesses of previous studies on the subject, whether or not their results and interpretations are in agreement. They are written primarily for readers who are familiar with the fact that:

Many an apparently valid scientific report is shown later to have been flawed by some weakness in its evidence undetected by the authors, the peer reviewers, or the editor, or to have drawn conclusions not generalisable to other patient populations. Many an apparently valid conclusion winds up months later heavily revised, or even discarded entirely, when new evidence turns up. And all kinds of subtle details in doses, dose schedules, stage of disease and other variations lead all too often to different conclusions on the same question. (Huth, 1989)

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3. When journalists have identified a controversy, they may well cite two sides to a story, but in other cases the literature would seem to agree that journalists treat single journal article reports in isolation.



Non-scientific audiences are less familiar with the ways of science, and if a news report gives the impression that the latest study is the whole truth on the matter, the credibility of science is likely to be diminished among such audiences when published findings or interpretations are later modified or disputed. Davison (1989), in a discussion of the public reception of conflicting pieces of lifestyle advice, wrote:

Periodically, an ill-defined and distant body of experts ("they") feed a warning or piece of advice about lifestyle and health into the media... "They" are well known for changing their minds about things, and... Many people observe that "if you listened to everything they say, you wouldn't eat anything, would you?"

He suggested that many people made little distinction between marketing slogans for products and health education messages, possibly because a "marketing" approach is now used to communicate lifestyle advice. Presumably the public will not always differentiate between scientific and non-scientific "they"s, either.

Although people will not *always* act on advice presented in the media, there is still a potential problem with news reports which give the impression that a single journal article can provide all the necessary evidence on a subject: people might be influenced to act on the basis of what is really incomplete or unconfirmed information because it is presented to them as black and white fact. The fact that a paper is deemed worthy of publication in a peer reviewed journal does not necessarily mean that its results provide evidence enough to warrant a change in medical practice or policy.

There is a difference between communicating information contained in research papers and conveying the idea that it has direct and immediate practical implications. (Golub, 1987)

Scientists and doctors are generally quick to chastise colleagues they suspect of advocating change prematurely on the basis of their recent findings. Badwe et al (1991) offered evidence in a *Lancet* paper that there were differences in the survival rates of women undergoing surgery for breast cancer at different stages in their menstrual cycle. Their results were quite widely publicised in the media, which soon prompted a letter to the *Lancet* criticising publicity "before assessment by the broad medical community" (Hardman, 1991). The correspondent worried that, on the basis of one set of new findings, prospective patients had cancelled planned operations and past patients had become anxious because they had had their operation at the "wrong" time:

It is of concern that the authors were prepared to make a "splash" in the national media as if their findings were undisputed fact already widely accepted by the medical profession. (Hardman, 1991)

The authors were able to defend themselves (Richards & Fentiman, 1991). They had not actively sought publicity for their paper, and in answering media initiated enquiries made

it clear that they hoped other breast surgery centres would check their results. In this case, the problem was that the journal article was almost bound to appeal to lay journalists, whether or not it was actively promoted. It was also susceptible to advocacy style reporting, in which journalists press for action, even if on the basis of the results of just one published study.

#### 5.4.2 Exaggerations of publication bias

The transfer of information from medical journals to lay newspapers may exaggerate the distortion caused by biases in journal publication still further. Koren & Klein (1991) demonstrated a tendency for journalists to pick out positive studies from journals even when negative ones were included. They compared newspaper coverage of two articles about radiation as a risk for cancer. The articles appeared back to back in the same issue of the *Journal of the American Medical Association* and were both included in the journal's news release. One study showed an increased risk of leukaemia among workers at a laboratory and the other failed to show an increased risk of cancer in people residing near nuclear facilities. The positive study was both more often and more thoroughly reported in North American daily newspapers than the negative one.

Investigators tend to have more ambitious publication plans the more striking their results are, so positive, statistically significant studies are more likely to be submitted to prestigious general medical journals (Begg & Berlin, 1989). These journals are more commonly cited in lay newspapers (Entwistle & Hancock Beaulieu, 1992) - probably because journalists scan them as sources in preference to the more obscure specialist publications - and thus the emphasis on positive, significant results is enhanced in the lay media. This effect could even be further fed back into medical literature because, as Phillips et al (1991) showed, reports in the lay press increase the likelihood of journal articles being cited in further studies by professionals.

#### 5.4.3 The timing of information transfer

There are various conflicting arguments about the optimum timing for the release of research findings to a wider public. At the crux of the debate are the questions of how much certainty there should be about research results and interpretations before they are publicised to lay audiences, and how this certainty should be measured. In addition to arguments about these issues, those who favour an early release of information argue the public's right to know (especially if public money funded the research), and the fact that



some research results pertaining to pressing problems appear to warrant rapid widespread dissemination of information. The arguments against releasing information quickly are: that science is tentative, and it is not in the public interest to release results and interpretations until they have been satisfactorily assessed by experts (the question of what is "satisfactory" returning us to the core problem again); that most research projects do not require urgent action in response, and time for further research and reflection by professionals would be preferable before the results were released; and that if lay people, patients and the media are going to ask questions about newly published research, the scientists and doctors who are expected to answer them should have time to assess the information, evaluate the research and make informed comment. These arguments will be discussed in more detail in the following sections.

### 5.5 Need scientists and doctors be first to know?

The timing of publication of news reports about journal articles has occasioned complaints from doctors whose journal copies have not reached them until after their patients have gleaned snippets of information from the media and appeared for consultations armed with questions and demands:

How is one expected to intelligently answer these questions (from patients) when the only available information is the same newspaper articles read by the public?... Supplying the lay public with a watered-down, often sensationalised version while keeping the medical community uninformed does a disservice to all. (Kutner, 1988).

A "new" cure for AIDS? Great! But guess who is going to have to interpret the findings to desperate people? We who await our journals. (Luckhurst 1990).

Some doctors and scientists might also be called upon by lay media outlets to comment on the publicised research, in which case the availability of detailed information is obviously desirable. It is debateable just how serious the problem is of doctors not being aware of the contents of those journal articles reported in the morning newspapers by the time they commence their surgery. Some doctors may be discomfited by having their "ignorance" pointed out by a patient, but few would claim to read many journals both promptly and thoroughly. Thus, while there seems to be some consensus about the usefulness of knowing what medical issues have been given prominence in the lay media, the argument of urgency is possibly less convincing. In view of the wealth of new medical information available, doctors should neither expect nor be expected to be omniscient, and certainly not immediately so. "The day when physicians could expect themselves to know everything that is relevant to medicine is gone forever" (Huth,



1989), and certainly many doctors effectively accept this by acquiescing in specialisation. Even general practitioners, who still need to work with a vast amount of medical knowledge, are expected to consult with colleagues and refer many patients with serious problems to specialists.

The increasing interest on the part of lay people in health and medicine, and the increasing number of popular medical texts make it ever more appropriate to ask why lay people should not be given as much opportunity to assess evidence as qualified doctors. It seems desirable that both doctors and lay people should be able to gain easy access to more detailed information about the research reported in the lay media.

News accounts published in the absence of available evidence are risky sources of information to the public and cannot be very useful to the profession. (Relman, 1981)

However, it is perhaps not imperative that every doctor should receive a copy of every journal article before it is widely publicised. If lay news reports were restrained until the appropriate journal article had been published (and if they also acknowledged the journal source to make the task of searching for the original report simpler), professionals and public should be able to keep adequately informed within a reasonable time.

#### 5.6 Is peer review a necessary public safeguard?

There seems to be quite a strong argument for waiting until a research paper has been peer reviewed before releasing the information it contains to the news media and a lay audience. The accepted means by which researchers communicate their work formally to their peers are recognised scientific meetings and peer reviewed journals. Any papers delivered or submitted to these fora are expected to contain enough detail about the methods used and results obtained to allow the subset of peers who are in the audience or who serve as referees to assess the evidence reported and the conclusions reached.

The main argument in favour of waiting until research has been peer reviewed before publicising it is that if detailed accounts of the work are critically considered by experts other than the author before results are widely publicised, it is more likely that sound, balanced information will reach the lay public and professionals who specialise in other areas. Editorial peer review gives at least a subset of scientists and medical professionals the opportunity to review an entire manuscript and "arrive at an informed judgement as to the study's merit and applicability" (Fishman, 1988) before morsels of information reach a less informed and more vulnerable audience.

Those researchers who would bypass the peer review process and take their research findings and claims straight to the news media effectively deprive their colleagues of the chance to evaluate the work and make informed comment because the level of detail provided in lay news outlets is usually inadequate for a critical consideration. Such researchers and their claims are generally regarded with suspicion by their colleagues.

The dissemination of medical reports in the media before all the evidence is available.... encourages self-promotion and commercial manipulation, and increases the likelihood of exaggerated or even false claims. (Relman, 1988a).

Thus, although the peer review process can sometimes be a lengthy one, publicity given to research before it has been formally presented to scientific/medical communities and reviewed by peers is generally severely frowned upon by members of these communities as being, in most instances, contrary to the public interest.

Premature publicity about medical research and publicity about work that has not yet been documented causes confusion among laymen and the profession alike. We believe strongly in the importance of an informed public and in the public's right to know, but we also believe that it is important to take the time to make sure that the public is not misled (Relman, 1981).

It is possible to imagine a scenario in the future in which lay newspapers will publish brief news of medical developments and journals, as archives, will later provide detailed evidence. The objection to such an arrangement hinges on the argument that there is no scientific news as such to be reported until research has been subject to peer review.

Unless we know how the data were gathered and were assessed as evidence, we do not know whether the "data" are "scientific" and meet the standards for findings reported from a scientific study. Hence "scientific data" cannot, by definition, be "released" before "publication" in the scientific sense. (Huth, 1989)

Most scientists and doctors apparently favour waiting until research has been deemed fit for publication by a peer review process before it is publicised in the lay media. Many journals use two approaches, the embargo system and the Ingelfinger rule, to restrain the wider dissemination of papers they have accepted for publication until the publication date. These arrangements also ensure that original journal papers are fairly readily available to those who want to consult them after reading news reports. If this was not considered necessary, it could be argued that the contents of a paper could be released to the news media as soon as it had been peer reviewed and accepted for publication. However, the fact that publication day is unambiguous and widely visible and the weight of opinion that doctors and scientists (at least) should have access to comprehensive information as soon as research has been published, make it likely that the journals will continue to gear their restraining policies towards publication day.



### 5.7 Is peer review an adequate public safeguard?

All journals print clinkers sometimes. (Cohn, 1989a)

Peer and editorial review are not flawless, but they do, on average, add strength and reliability to published scientific papers. (Huth, 1989)

The case of the Bristol Cancer Help Centre (BCHC) study (see 5.1.1) is interesting in this regard. The *Lancet*'s peer review system failed to identify flaws in the paper, but the wider peer review which followed publication brought the problems to light. If the media had delayed publicising the story until three months after the journal publication date, they would have had more chance of getting the information "right" (although in journalistic terms they might not have had a story), the BCHC would not have been so damaged, and the women attending it would not have become so anxious. On the other hand, if the study had not been flawed, and the BCHC regimen really had been responsible for lowering survival rates, the media publicity would have been appropriate, as would the actions of women withdrawing from the centre on the basis of the information they were given. This case is a classic illustration of the dilemmas arising in communication about medical research because of the uncertain nature of science and the importance of the problems investigated.

The case of the research paper by Badwe et al (1991) was slightly different. Again, the publicity given to it was criticised by doctors even though it had been peer reviewed (see 5.4.1). It was the first paper to report that the timing of breast cancer surgery with respect to a woman's menstrual cycle could affect survival rates, and some felt that although the research was deemed worthy of publication in an academic journal, the results should have been confirmed by further studies before they became news.

Information which has successfully been through a peer review process is not always ideally suited for public consumption, but peer review seems to be the best currently available safeguard of public interest as far as publicity of medical research results and claims is concerned.

### 5.8 Peer review and the lay news media

The peer review process for medical journals is not intended to judge whether or not information is fit for widespread public consumption. Reviewers are not asked to serve as censors in the public interest, but to assess whether a research paper is fit for publication for consideration by a wider community of researchers and practitioners.

The use of a second set of reviewers to assess (by criteria which would doubtless be the subject of much argument!) the suitability of information for lay news reports would

probably be opposed for being patronising and for restricting access to information. It would not solve the problems of uncertainty about the validity of results and claims. Given that information once printed in journal articles is effectively in the public domain, it would also be difficult to restrain lay journalists from using non-approved information, or even to wait until a critical mass of evidence had been accumulated.

There will always be a tension between trying to ensure that the public are given information which has been in some way validated and is as correct as possible, and having an open approach, getting information into a public forum as quickly as possible. In most cases, publicity to coincide with or follow publication in a peer review journal would seem to be the best general guideline available. There are, however, occasions when publicity before publication date is desirable (see 5.10.1).

### 5.9 News embargoes

The news embargo and the Ingelfinger rule are used by many medical journals to control the release of information to the lay media. The news embargo is aimed primarily at media outlets and the Ingelfinger rule (see 5.10) at authors of research papers. Embargo systems usually involve giving media representatives advance copies of articles or information in return for an agreement that news reports based on them are not released until a particular (usually publication) date. Embargoes should facilitate a higher quality of reporting from journalists. They receive information in advance of a specified publicity date and have some time to research stories without racing to beat their competitors into print, "allowing the preparation of well documented material in a timely fashion" (Lundberg, 1989). Embargoes may also free correspondents to some extent from "the need to determine what they write about by the knowledge of what their rivals have already written" (Anon, 1988), perhaps making a wider range of reporting across the different news outlets possible. Embargo arrangements go some way to ensure that no particular reporters are favoured over others, although weekly publications may be disadvantaged by the day of embargo and some television or radio programmes benefit from midday or evening embargoes.

Embargoes may also give editors and the medical profession some reassurance that doctors who subscribe will receive their journals before news stories appear (Stacey, 1985) - although they may still be at the mercy of the postal system, especially in more remote areas (Squires, 1990). The embargo system enables a compromise to be reached between "an increasingly aggressive and competitive press - whose perceived duty and



vocation is to publish information instantaneously" and peer-reviewed journals which are "charged with the task of mandating scientific material and not releasing it prematurely" (Springer, 1988). The compromise on the part of journalists seems clear:

The notion of holding information for release cuts against the grain of journalistic enterprise, the perennial itch to get a scoop and gain an exclusive. (Stacey, 1985).

In most instances, however, embargoes are respected. Medical journalists need journals as regular sources of information so journals can quite effectively threaten to suspend mailings to those who break embargoes. Journalists possibly also fear rival news outlets breaking embargoes because their own story would become old news. If embargoes were not respected, there would be an enormous pressure to publish stories more quickly, and the quality and accuracy of reporting might be diminished.

The feared consequences of a broken embargo on the part of the medical community are that unnecessary public anxiety or unjustified hope may be derived from news reports, with trained medical practitioners unable to moderate the impact or respond because they have not had the chance to study the evidence and note the caveats and qualifiers of the original report (see 5.5).

If an embargo is broken by one news organisation, others then regard the news as in the public domain and freely publishable and there follows a rush to get into print to avoid being left behind (Relman, 1988a; Springer, 1988). One notable breach of embargo occurred in 1988 when Reuters newswire gave early publicity to a *New England Journal of Medicine (NEJM)* article about a trial of aspirin for the primary prevention of myocardial infarction. A double-blind, placebo controlled trial showed that physicians taking a buffered tablet of aspirin every other day suffered 47% fewer heart attacks over 5 years than those who did not. After a flurry of press coverage, there were reports of mass buying of aspirin for long term self-medication to prevent heart attacks. The warnings in the original report and editorial that this was not advisable (there are dangers of internal bleeding etc) were not heeded (Relman 1988a). When the *NEJM* was criticised because it was thought to have promoted advance release of information to the media. The editor stressed:

Our embargo policy is intended to achieve just the opposite - that is to ensure that any stories the media may choose to write about our articles are released in an orderly manner, at the time the *Journal* is published. (Relman, 1988a).

The *NEJM* punished Reuters by removing them from their advance mailing list for 6 months, so another consequence of the broken embargo was that Reuters was, at least temporarily, "medically less well read" (Anon, 1988). The main motive for breaking the

embargo in the aspirin case seems to have been the possible effect of the news of the results on the stock market (Springer 1988). The editor noted:

Opposition to the embargo policy comes primarily from a few news agencies (e.g. Reuters) that serve investors and stock market analysts. An increasing number of *Journal* articles concern drugs or other products of commercial importance; publication of such articles affects stock prices. Investors and analysts insist on prompt access to this kind of information and see no reason to abide by our embargo rules. We understand their concern, but our first obligation is to serve the needs of our physician readers and all those who depend on them for timely and fully informed medical advice" (Relman, 1988a).

Many scientists and doctors believe the embargo system to be in the public interest. A survey of subscribers to *NEJM* found 86% of respondents in favour of the embargo policy, 5% against, and 9% with no preference (Relman, 1988c).

### 5.10 The Ingelfinger rule

In addition to the embargo system, many peer-reviewed biomedical journals use the Ingelfinger rule (named after an editor of the *NEJM* who introduced it) to help control the flow of information to lay news outlets. This rule basically forbids publication of information submitted to journals for peer review until the journal's publication date, although there are certain exceptions. Authors and potential authors seeking to publish their work in prestigious journals are thus discouraged from publicising their findings in other media outlets until the formal journal article has appeared.

The Ingelfinger Rule obviously protects the originality of articles published in a particular journal. Most biomedical journals prize their exclusiveness and newsworthiness as well as their archival role. Editors do not like to be scooped, nor to have the contents devalued by prior publication elsewhere:

Work that has already been publicised, especially if its scientific substance has been printed in detail in the medical press or given full exposure by one or more major newspapers, has by our lights lost some of its interest. (Relman, 1981).

The Ingelfinger rule is also used to help ensure that work is peer reviewed before it is publicised and that medical professionals have access to detailed information before patients see or hear news reports. One journal editor explained the rule intended:

to see that *all* of the important new information is in the hands of the physician before patients read about it piecemeal in the newspaper. This way, physicians can familiarise themselves with all the material, not just portions excerpted by reporters, and evaluate the entire article in order to form their own opinion and counsel their patients correctly. (Springer, 1988).

Not all agree that that is the primary purpose of the Ingelfinger rule, but by trying to delay publicity until journal publication date, it can serve that role. The rule has been



criticised as a tool used to "exercise undue power over the flow of information on medical research" (Altmann, 1988). In its defence, proponents argue that there is little guarantee of the validity of the information before it has been peer reviewed and cite cases where peer reviewers have required revisions to be made before they were satisfied that a paper made a useful contribution to research (Angell, 1983). Some journalists accept that research should be critically considered by peers before it is publicised, but argue that it need not be the publishing journal which controls this process.

Using unreviewed research puts more responsibility on science writers and the researchers who talk to them, but this has been done in the past successfully. Those reporters who choose to write about unpublished work have an added obligation to seek comments from other scientists in the field and to point out the preliminary nature of the studies. (Russell, 1986)

Undoubtedly there are some specialist correspondents who would recognise that obligation and report responsibly and well on unpublished research. Less scrupulous and less confident journalists would seem better advised to stick to peer reviewed work, although whether the Ingelfinger rule is the best means of encouraging this is debateable. At present, journalists often do not have the option of reporting research before it is published because researchers wary of the Ingelfinger rule are unwilling to speak to them until their work has appeared safely in an appropriate journal (Perlman, 1992).

Journals vary in the strictness with which they apply rules forbidding prior publication of information they publish. Few would forbid authors to speak to the media about their work if it has reached the public domain via a scientific conference or another legitimate route - indeed, they may be encouraged to do so if this will help reporters "get their facts straight" (Relman, 1981) and if they do not go beyond the content of the paper (Angell & Kassirer, 1992). What they do discourage is journalists taking the initiative in offering information or disclosing too much. The letter which the *NEJM* sends to authors on receipt of a new manuscript explains:

The *Journal* undertakes review with the understanding that neither the substance of the article nor the figures or tables have been published or will be submitted for publication during the period of review. This restriction does not apply to abstracts published in connection with scientific meetings or to news reports based on public presentations at such meetings. There is no objection to answering questions from reporters that are intended to clarify such presentations, but authors of papers presented at meetings are cautioned about distributing copies of their manuscripts or otherwise encouraging premature publication of the details of their work. (Relman, 1988b)

However, scientists have apparently often not taken on board the lack of objection to the "answering of questions... intended to clarify". One American journalist lamented:

Most often the authors take it (the Ingelfinger rule and its policy discouraging authors from giving journalists more information than they have given to their peers) to mean that they must not help lay reporters to understand the technical aspects of their papers or - as is often the case - that they should not even provide reporters with cautionary interpretations that might avert much breathless prose and "breakthrough" headlines. (Perlman, 1992)

Although the Ingelfinger Rule attempts to discourage "the premature dissemination to the public of unsupported and unreviewed claims" (Relman, 1988b), it only covers research submitted for publication in peer review journals and those who do not seek to publish their work in prestigious journals are not subject to its constraints. A recent study carried out by a Medical Research Council (MRC) Epidemiology Unit in Cardiff produced findings seeming to contradict "some cherished beliefs" about the links between saturated fat and heart disease. (Anon, 1991). The work was not submitted for review and publication in a medical journal, but was published independently and eagerly picked up by the lay press: "Milk helps avert heart disease" and "Butter eaters have fewer heart attacks" were typical headlines. The embarrassed MRC considered it necessary to issue a statement emphasising its policy that work emanating from its units and grant holders be submitted to scientific journals for full scientific assessment before publication. (They also noted that the particular study was one of many examining the links between diet and heart disease, and should be regarded only as a contribution to the subject - a perspective which, as might be expected, was not adopted in most news articles (Anon, 1991)).

#### 5.10.1 Exceptions

Several journals make exceptions to the Ingelfinger rule in cases of urgent importance. There has been some debate about the need to bypass the traditional lengthy peer-review process to convey information of urgent import to the medical profession and the public. While most medical stories reported in the news media are not urgent in the sense that a delay in informing the public of a finding could be harmful, there have been a few cases of concern in which government agencies have been criticised for not warning the public or professionals promptly about known health risks (or for not alerting them to promising treatments). These are in addition to complaints about delays in publication caused by the peer review process. Rapid developments in the field of AIDS research, coupled with the proliferation of vocal, scientifically literate advocacy groups, led to increased pressure on health officials to "short-circuit the traditional journal-based process of disseminating scientific information and instead issue immediate warnings to



physicians and the public" (Anderson, 1990). The *NEJM* exempts articles dealing with matters of urgent importance to the public health thus:

Distribution of such information through the media, by direct communication to physicians, or through publication in [Morbidity and Mortality Weekly Report]... is not considered a violation of the Ingelfinger rule, nor are presentations before government agencies or at other public hearings. (Relman, 1988b).

In a review of the policies of different US based scientific journals about publishing results with important public health implications, Anderson (1990) noted that the journal *Cell*, at the other end of the spectrum, has "an absolute ban on any release prior to the release date of the journal", but can, with a fast track review process, publish articles within two weeks of submission. *Cell* publishes mostly basic research, and Anderson observed that the more clinical a journal's focus, the more tolerant it was likely to be of early release, presumably because it was more likely to be handling information which could have a fairly immediate direct impact on people's health.

#### 5.10.2 A case study

The news media are often the voices of criticism of government departments. A headline in the *New York Times* of 14th November 1990, "News of AIDS therapy gain delayed 5 months by agency", suggested a deliberate, malicious withholding of information on the part of officials which denied people treatment for a possibly crucial length of time. The furore which followed this article brought into focus the long-running debate about the pre- (scientific) publication of articles (Anderson, 1990; Palca, 1990), and the case illustrates the difficulties of releasing new information in a way which will satisfy everyone with a stake in it.

A panel of experts met in May 1990 to discuss five recent clinical trials of corticosteroid drugs in the treatment of *Pneumocystis carinii* pneumonia (PCP), and concluded that these could be beneficial in moderate to severe cases. The treatment of an estimated 40,000 people in the next decade, for 5-30% of whom PCP could prove fatal, could be affected. The panel did not call a press conference to announce the news, and the National Institute of Allergy and Infectious Disease (NIAID) did not notify doctors for 5 months of the panel's findings, because although the panel agreed in principle to endorse steroid therapy, there was some concern that in certain cases more harm than good would be done by the treatment, and there was no consensus about treatment details. The five trials involved had commenced therapy at different stages of disease progression, and involved different doses and different administration routes for

the drugs. In addition, one possible side effect of the steroids was suppression of the immune system, a crucial consideration for people with AIDS. Thus there were many reasons to be cautious about publicity, especially if the news media were unlikely to report all the nuances and caveats surrounding the treatment. NIAID asked the *NEJM* to review the panel's findings before they were publicised. In view of steroids' checkered history, and the possibility that doctors would accept the information less critically if it had a government stamp on it, the agency was unwilling to make a premature statement.

The *New York Times* article claimed that one reason for the delay in publicising the findings was that the researchers did not want to issue a consensus statement because it could prejudice their publication of the trial findings in prestigious medical journals (i.e. they feared falling foul of the Ingelfinger Rule). In fact, some results had already been published or discussed at scientific meetings, so the information was not entirely new, and many doctors knew of it. The consensus statement was not fast-tracked through publication because in view of the weight attached to consensus statements and the uncertainty of the subject, early publicity was not felt justified.

### 5.11 Summary

In many ways, articles published in peer reviewed journals are good sources of stories about research for the news media. They are detailed, self-contained sources of information and the fact that they have been peer reviewed provides some reassurance for journalists that the information has been deemed worthy of publication by experts in the field. However, the peer review process does not always pick up flaws in journal articles, and even the best individual articles cannot be said to be the whole truth on a matter as results and interpretations are always provisional. The constraints and traditions of news reporting which encourage the reporting of single articles in isolation and often in advocacy style, omitting context and caveats, obscure these limitations of journal articles, so their import is often "hyped" in news stories.

The roles of academic and professional journals are different from those of the lay news media, and the transfer of information across the boundary into a wider public forum is problematic if the changed context and audience are not adjusted for. Many problems arise because news reports often fail to portray the tentative nature of scientific research, and the lay public cannot be assumed to understand and be able to cope with its uncertainty.



The peer review process is not intended to certify the information contained in research articles as useful news for public consumption, but two main factors encourage journalists to wait until research has been published in a peer reviewed journal before they report on it in lay news media. Firstly, the peer review system is currently the only formal system which can help journalists assess the quality of new research, and secondly, authors are dissuaded by journals' policies against pre-publication from discussing their work until it has been published. There are problems with both of these. Firstly, there have been cases of research which has been peer reviewed and publicised later being shown to be flawed, and secondly there have been cases where the delay in publicity of even tentative findings caused by a lengthy peer review process has been criticised. There will always be a tension between conveying information rapidly and allowing time for its accuracy and validity to be checked.

## 6. Methods

### 6.1 Preliminary investigations

Preliminary investigations included a review of recent literature about news production, source-journalist interactions, science and medical journalism, and the communication of information about medical research. In addition, key organisational "players" involved in medical research and the communication of health and medical information to the public were identified. Many of these players were approached informally by post, and the letters and introductory literature received in response were often useful sources of information for the project.

### 6.2 An overview of methods used

Several complementary methods were used during the course of this project. Evidence was gathered from key players with different roles in the information flows affecting coverage of medical research in quality newspapers, and from some artefacts of those information flows. The combination of methods used allowed several different perspectives to be obtained.

Preliminary questionnaire surveys of journal editors and journalists served as exploratory tools to investigate the use made by journalists of journal sources<sup>1</sup>. In-depth interviews were used to obtain qualitative data from two groups of individuals with key roles in the information flows under consideration: media relations personnel from organisations at the source end of health related information and opinion and specialist medical journalists writing for national broadsheet newspapers. Finally a content analysis of newspaper articles based on medical journal articles provided a different angle of approach, analysing the products and artefacts of the information flows about research published in the *British Medical Journal* and the *Lancet*. This to some extent allowed a corroboration of what respondents said.

The various components of the project fed fruitfully into each other. Issues raised during early questionnaires and interviews influenced the design of subsequent ones. In particular several points raised by interviewees from source organisations highlighted

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1. The questionnaire surveys of journals and journalists are described as preliminary because they took place at a very early stage in the project and were intended as exploratory tools rather than full scale surveys. The sample sizes were quite small, and pilot studies involving respondents from the survey population were not conducted.



relevant questions to be asked of the journalists, and journalists' comments about their use of journal articles helped to shape the content analysis.

The project did evolve somewhat during its course, and although it retained a fairly broad set of aims, some preliminary surveys were not as focused as they might have been on what came to be identified as the main issues. Insights gained during the course of the research highlighted minor improvements which could have been made to earlier stages. In view of the fact that much useful information had already been gathered, that the research was dependent on the co-operation and good will of very busy people, and that time constraints were operating, it was deemed inappropriate to re-run surveys with relatively small adjustments. Preliminary surveys are thus reported as such in the forthcoming sections and chapters.

### 6.3 Preliminary questionnaire survey of journals

Self-completion questionnaires were sent to the editor or person responsible for press relations at 48 journals covering medicine and health. The sample included the 10 journals most commonly named in a content analysis study of health and medical articles in UK national newspapers (Entwistle & Hancock-Beaulieu, 1992) and a further 38 titles which were easily identified and which represented a range of health and medical topics. 5 further questionnaires were completed during interviews with the representatives of source organisations responsible for relevant journals. The participating journals are listed in Appendix 1. They included peer reviewed journals reporting primary research, specialist professional updating magazines and other secondary journals, including consumer health magazines.

Respondents were asked about: arrangements for distribution of the journal to media representatives; arrangements to alert journalists to articles thought particularly newsworthy; enquiries from lay journalists; and whether they were aware of any contributing authors having sought media publicity for their articles. A copy of the questionnaire is provided in Appendix 2.

### 6.4 Preliminary questionnaire survey of journalists

Self-completion questionnaires were mailed to a convenience sample of 22 medical, health and science correspondents on national daily newspapers (both broadsheets and tabloids). The survey was a preliminary investigation into how information from medical and health related journals is transferred to a wider public domain.

Respondents were asked about: the particular journals which they consulted; their means of access to journals; the sources and resources used to write stories based on peer reviewed journal articles; their opinions about press release summaries of journal articles; the sources they used in conjunction with journal press releases; and the criteria for the selection of topics from journal articles. A copy of the questionnaire is provided in Appendix 3.

## 6.5 Interviews with source organisation representatives

### 6.5.1 Sample

Semi-structured interviews were conducted with senior personnel responsible for media relations at 25 organisations which were national in scope and involved with medical research or otherwise at the source end of health related information and opinion. The organisations are listed in Appendix 4 together with brief details of their roles. The sample was purposively chosen to include organisations regarded as key players with unique, major roles in health and medicine in the UK. In order to gain a broad overview of the issues affecting information flows, and in particular to identify some of the differing motivations and constraints present in different organisations, at least one representative of each of the following types of organisation was included: government departments; statutory bodies; regional health authorities<sup>2</sup>; professional associations; medical research charities; academic or independent research centres; pharmaceutical companies; health food manufacturers. A medical journal editor and a representative of a public relations company which handles several clients with health and medical research interests were also interviewed.

Three umbrella bodies (ABPI, AMRC, and BHFTA) were included in the study. It was hoped that in addition to discussing their own media relations (which were likely to be influential because of their role as representatives), they would be in a good position to discuss relevant issues affecting their sector and might be able to provide an overview of their members' media relations activities.

Most of the organisations selected had relatively well developed press relations operations and fairly regular dealings with journalists on national newspapers. The bias was thus towards major players and "normal" information flows, although some of the

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2. Although they are not national in scope, regional health authorities were included in the interview sample because they have traditionally been the locus of the public relations function within the NHS.



sectors represented were less active in media relations terms than others. While the sample was considered adequate to provide a good insight into the relevant information flows, it should not be assumed to be representative of all organisations with health and medical interests.

#### 6.5.2 Areas of discussion and interview arrangements

The diversity of organisations involved made a flexible approach most suitable, and interview schedules were tailored to ensure they were appropriate to the particular organisation. Broad areas of questioning included in all cases were: motivations for seeking media access; the types of messages the organisation was keen to communicate; the position of media relations within the organisation; media relations strategies and tactics (particularly those pertaining to medical research subjects); the scale and nature of media relations activities; and media relations officers' perceptions of their own and others' roles in the communication process. The interviews with source organisation representatives were not strictly restricted to information flows involving medical research and the quality press because it was hoped that these would be placed in the wider context of the media relations activity of the organisation. Differential information flows to quality and popular newspapers were a subject of particular interest.

The interviews were intended to provide qualitative information and insights into some of the nuances of information flows, so a rigidly structured interview procedure was not considered appropriate. Topics were not always discussed in the same order, and interviewees were given a relatively free reign to talk in depth about relevant issues which particularly interested them. The lack of consistency in detailed questioning was not considered problematic because there was no intention to directly compare and contrast the roles of different organisations in the relevant information flows. In cases where organisations had received recent media attention prior to the interview, interviewees were shown appropriate cuttings and asked about the background to these. A guideline interview schedule was taken to each interview to help ensure the main topics of interest were covered. A typical guideline schedule for an interview with the senior press officer of a large medical research charity is shown in Appendix 5.

The interviews took place between June 1991 and July 1992 and lasted between 30 and 150 minutes (the average was approximately 90 minutes), but in several organisations more than one representative was interviewed so the total interview time was longer. With the exception of several major pharmaceutical companies, all those

organisations approached with requests for interviews consented. Interviewees were generally very co-operative and did not appear constrained in their responses, particularly when they were reassured that the information they provided could be reported anonymously. Their willingness was possibly one of the advantages of interviewing people with public relations type responsibilities! Interviews were tape recorded and transcribed in full to facilitate analysis.

The major limitations of interviews, that they do rely on people's ability to recall and describe situations accurately, and that the information gathered is shaped by their individual perceptions, were recognised. However, they had the advantages for the purposes of this study of allowing a preliminary investigation of a variety of viewpoints within the time and resources available. The merits of ethnographic observation studies as complements or alternatives to the interview approach are discussed in chapter 13.

#### 6.6 Interviews with specialist journalists

Semi-structured interviews were conducted with 10 journalists working for UK national quality newspapers and specialising in medicine and science. There are a limited number of such specialist medical and health correspondents, and most of these (including at least one each from the *Guardian* (GUA), *Independent* (IND), *Daily Telegraph* (TEL), and *Times* (TIM)) agreed to participate in the interview study despite the difficulties of "fitting it in". The sample included specialist news reporters, health page writers/editors, a medical columnist and a freelance features writer. Although it is specialist news reporters who most commonly report on medical research as published in journal articles, and although the focus of the content analysis study was on news reports, health page editors, the medical columnist and freelance features writer were included in the study because they do cover medical research topics, and because their liaisons with news reporters could affect information flows. The participating journalists and their position and affiliation at the time of interview are listed in Appendix 6.

The interviews took place between November 1991 and June 1992. Question schedules were tailored to suit the different roles of the respondents and to accommodate particular questions about recent articles of their own. The schedules were flexibly used, and interviews lasted between 45 and 120 minutes. Broad general areas of questioning were: the journalist's remit and role perceptions; factors affecting the initiation, development and writing of articles; sources of ideas and information; news values and selection criteria; coverage of medical research; working relationships with colleagues, editors,



and journalists from other news outlets; perceptions of the audience. An example of an interview schedule for a specialist medical news writer is given in Appendix 7. All interviews were tape recorded and fully transcribed to facilitate analysis.

One disadvantage of variations in question wording and orders and emphases of discussion is that it makes some direct and detailed comparisons inappropriate. It would have been interesting to compare journalists' responses to a particular situation, for example to discuss their thoughts, decisions and actions about a particular journal issue, news release or press conference. However, since the interviews were staggered over a period of several months, this would have over-stretched the recall powers of some respondents. A group interview after a press conference was considered, but rejected because few journalists would have felt able to spare the time at such a time.

### 6.7 Content analysis

The content analysis concentrated on newspaper articles based on the *British Medical Journal (BMJ)* and *Lancet (LAN)*. These two journals were chosen because they were regularly scanned by journalists and often reported, they covered a broad range of medical research, and because access to their news releases was available. The *BMJ* and *LAN* have major roles to play in the information flows affecting coverage of medical research in the UK quality press and thus are suitable as case studies, but they are somewhat atypical among journals because of their key positions.

#### 6.7.1 Brief summary of method

The Friday issues of a sample of newspapers were scanned for any news articles containing information published in the latest issue of either the *BMJ* or the *LAN*. These newspaper articles were content analysed and compared with the journal articles on which they were based. Some characteristics of the journal articles which had been reported by newspapers on embargo date were studied and compared with the characteristics of those which had not. Copies of press releases about *BMJ* or *LAN* articles for the sample period were requested from the journals, UK authors of journal articles, and funding organisations where these were known.

#### 6.7.2 Sample

The sample of newspapers comprised 18 Friday issues each of GUA, IND, TEL and TIM. 8 Fridays were used from September 6th to October 25th 1991 inclusive, and 10

Fridays from May 8th to July 10th 1992 inclusive. Only one edition of each newspaper (determined by convenience of purchase) was included in the sample for each date. Fridays were studied because they are the embargo dates for the *BMJ* and *LAN*, so the newspaper articles studied would all be classed as relatively "hard news". This approach was adopted because it was felt important to be comparing like with like: if newspaper features, health section items, columns and letters to the editor were all included, the overall picture of content could be misleading.

The sample dates were chosen largely for convenience. Requests were to be made to various organisations for copies of any press releases issued in connection with articles published in the *BMJ* or *LAN* on the weeks studied. It was considered easier to ask organisations for a block of any press releases issued between certain dates than on the scattered dates which would be required by a constructed sample (and also more likely that a complete sample would be obtained).

### 6.7.3 Some definitions

A newspaper article for the purpose of the study was defined as a continuous piece of text about a single topic, either under a single headline, or split across two pages with an indication of continuation. Where two or more main topics were included under one headline but separated, for example by a large dot or a new by-line, they were all included as separate articles.

The term "issue-subject" was adopted to simplify analysis of the pattern of newspaper reporting of journal articles. It refers to a single subject as reported in one week's issue of a journal. A single issue of a medical journal may contain more than one article on a single subject (e.g. 2 related research papers or a research paper and an editorial piece). Newspapers reporting on a particular issue-subject might use one or more of the relevant articles. The concept of issue-subjects make it easier to compare newspaper articles reporting the same subject on the same day, since it brings together all the newspaper articles reporting on any of the journal articles on the subject in question. In one of the sample weeks of this study, both the *BMJ* and *LAN* carried research papers about the success rates of assisted conception techniques. Two newspapers reported the *LAN* paper only, one the *BMJ* only and one both in one article. It was decided to treat all four newspaper articles as derived from one issue-subject.



#### 6.7.4 Identification of articles

Each newspaper was scanned twice to minimise the risk of missing relevant articles. Having scanned each newspaper once and identified relevant articles in some, similar stories were checked for carefully in others. Headlines were the primary guide to article content, but text was also considered, particularly where headlines were ambiguous. Newspaper articles which named the *BMJ* or *LAN* were relatively easily recognised, but all medical news stories were checked against the contents of the current journal issues so that articles which used information published in the journals but did not acknowledge it as a source could also be identified.

The scanning procedure was quite thorough and it is unlikely that any relevant articles were missed in the newspapers scanned. Computerised searches of electronic copies of newspapers could not have been so effective in identifying all articles derived from *BMJ* and *LAN*, because not all relevant articles named the journals and they covered too broad a range of topics to be effectively identified by key words in the text.

One journalist mentioned that a journal based story which he wrote had been developed in later editions to include more comment from various sources. This confirmed that sometimes (though according to the journalist rarely) there is more than one published version of a news report. However, if any of the news reports in the sample had existed in more than one version, it is likely that the journal origin of the news story would have been identified whichever edition was purchased, and that similar journalistic and editorial values and decisions would have been at play in shaping the text. All news articles are "developed", and although development is usually halted at the stage in which the article reaches the first edition (indeed, the stage of development reached might be determined by what the journalist and editors can achieve before the first edition deadline), further development is possible between editions. This further development could, of course, consist of cuts as well as additions. Given (a) the lack of evidence for frequent and systematic changes between editions, and (b) that the content analysis was intended to shed additional light on the processes of news production and their impact on resulting articles, rather than to assess a definitive "end product", the fact that only one edition of each newspaper was scanned for this study was not considered too problematic.

### 6.7.5 Information recorded

For each journal article identified as reported by one or more newspapers during the sample period, the following data was recorded:

#### 1. Bibliographic identification

First author, date, article title, journal, first page number.

#### 2. The section of the journal in which it appeared

Sections were classified as follows:

- PA = BMJ Papers, LAN Original Articles, LAN Short Reports
- ED = Editorials
- LE = BMJ Correspondence, LAN Letters to the Editor
- SU = Substantial research reports or extended discussions listed on the contents pages under subject headings (e.g. BMJ General Practice, Audit in Practice, LAN Epidemiology, Public Health, Clinical Practice).
- OT = Other (e.g. BMJ News, Medico-political digest, LAN Bookshelf, News and comment)

#### 3. The "genre"

The type of research or comment reported was classified as listed overleaf:

- AU = Audits of medical practice (surveys of the activities or attitudes of individual doctors, wards, units or specialties).
- CA = Case reports, or reports of clinical trials or other investigations involving less than 10 patients.
- CL = Clinical trial or evaluation of any therapeutic, diagnostic or preventive procedure (medical, surgical, psychiatric, social or other interventions, including screening tests).
- EP = Epidemiological or aetiological study (retrospective or prospective, investigating incidence, prevalence or cause of ill health). Research into genetic, biochemical, occupational and other environmental influences on health were included in this category.
- VI = Viewpoint, opinion, including literature reviews, meta-analyses and discussion of hypotheses.

Most articles were quite easily classified, although the genres were not entirely mutually exclusive, as a few articles had several aims. For example, one study (B893) had two stated objectives:

- a) To determine the excess mortality from all causes and from coronary heart disease in patients with familial hypercholesterolaemia; b) to examine how useful various criteria for selective measurement of cholesterol concentration in cardiovascular screening programmes are in identifying these patients.

In such cases, a subjective judgement about the major focus of the article was used.

All research involving less than 10 patients was counted as a case report, regardless of the types of insight offered.



4. Whether the article was included on the journal's news release, and if it was, its position in the news release order. (BMJ and LAN news releases for the sample period were available).
5. Whether the article was press released by the research funders, research institute, authors or other interested bodies, and if so, by whom. (This information was obtained from the batches of news releases made available by major funding organisations, and by writing to the authors of the journal articles concerned).
6. The number of authors named
7. The countries to which authors were affiliated

To enable comparisons to be made between those journal articles which were either reported by newspapers or included on news releases and those which were not, the following information was recorded for each BMJ and LAN issue appearing during the sample time frame:

1. The number of journal articles appearing in each major section (corrections were excluded from the counts).
2. The genre of all major research papers appearing in PA and LAN SU sections (see above).
3. The countries to which authors of PA and LAN SU papers were affiliated.

For each newspaper article, the following information was recorded:

1. Bibliographic details  
Newspaper, date, page number, headline and by line
2. The total number of sentences and the number of sentences in the newspaper article whose content was substantially contained in the journal article.
3. Those sentences whose content was not substantially contained in the journal article were assessed according to information contained, voice represented and level of agreement with the journal article. The following categories were used:

Information contained:

- Explanation of background material (e.g. characteristics of a disease, actions of a chemical, procedures of an operation)
- Incidence (any information about the incidence, prevalence or mortality rates of a condition, the numbers of operations performed or other treatment statistics)
- Further explanation of the methods used or results obtained
- Further comment on the implications of the research, including suggestions of the limitations of the conclusions which can be drawn
- Details of a related topical event or issue

- Details of other research studies on the subject
- Other

Voice represented:

- Author of journal article
- Non-author (individual or organisation)
- Journalist (otherwise unattributed statements)

Agreement with journal article:

- Supportive (backs up, strengthens or agrees with the argument of the journal article)
- Neutral (information of an explanatory nature or about a related issue which neither supports nor contradicts the journal article)
- Conflicting (contradicts or disagrees with journal article, e.g. by presenting contrary evidence or argument)

4. The number of sentences in the newspaper article containing direct quotations from the journal article.
5. Any outright errors in the newspaper article, assuming the journal article(s) to be correct. Outright errors included incorrect references and statements which were judged "substantially" different to those in the journal article. They excluded omissions of information (which were partially assessed by the data recorded in 7 below) and "non-substantive" alterations (defined by Singer, 1990, as "changes of emphasis, misleading headline, translation, less precise formulation, and assimilation of speculation to fact").
6. Any apparent translations of terms identified in the newspaper article.
7. Whether or not the newspaper article included any information on:
  - The subject background (e.g. disease incidence, accepted treatments, folk wisdom)
  - Topical events or issues connected with the journal article subject matter
  - Previous studies on the subject
  - Methods of the current study
  - Results of the current study
  - Implications of the results of the current study
  - Limitations of the results or the inferences which should be drawn from them
  - Direct specific advice, either from authors, other experts, or journalists

This information was not recorded for newspaper articles based on journal articles which were classified as case histories or which did not primarily report any one particular piece of research in detail. Thus several letters and editorials were excluded. Journal articles in the "viewpoint" genre which reported on metaanalyses or included details of research to support the argument were included.

8. Whether or not the newspaper mentioned the name of the first author or any other authors of the journal article(s) it reported.



9. Whether or not the newspaper named the institution in which the research was conducted, or the affiliation of the journal article authors.
10. Whether or not the newspaper article mentioned an organisation which had funded the research.
11. Whether or not the newspaper article named or quoted any other people, and if it did, their affiliation.
12. Whether or not the text suggested that sources other than the journal article and associated press releases had been used to write the article.

### **6.8 Brief discussion of methods**

The methods described above were selected in order that a broad preliminary overview of information flows could be obtained from several perspectives. Although the people interviewed were key players in the information flows affecting coverage of medical research in the UK quality press, there were several categories of player who were not studied directly. Medical researchers themselves were not interviewed, nor were newspaper sub-editors and editors, nor gatekeepers on newswires. The picture is thus lacking several viewpoints.

The classic limitations of interviews obviously apply to this study. In particular, the data collected is constrained by respondents' knowledge, memory and ability to articulate ideas, and may be biased by their preferred viewpoints and possibly by their shaping of accounts to suit their perceptions of what the interviewer wants to hear. People do not always describe accurately what they do. In this study, the fact that representatives of two groups of people who interact were interviewed allowed a certain amount of corroboration of data in that some activities were reported on from two standpoints.

The content analysis study reflected to a large extent a translation model of the flow of information from medical journals to lay newspapers. It was by its nature confined to a consideration of the textual evidence of journalists' selection and handling of information published in two medical journals, and could not address broader questions of the use made (or not) of other sources of medical research information.

Specific points about the methodological strengths and limitations of particular aspects of the study are discussed further in the appropriate results and discussion sections. Some suggestions for future study are given in chapter 13.

## 7 The view from the press office

As described in section 6.5, interviews were conducted with representatives of a purposive sample of organisations selected to cover a range of organisational types and to include those playing key roles in health and medical issues. The individuals interviewed were senior personnel with responsibility for media relations, who were thought likely to have a key role in shaping the flow of information between their organisation and the media. Their job titles varied, but for simplicity the term "press officer" is used for all of them throughout this and subsequent chapters.

This chapter will explore reasons for seeking media access, the position of media relations within organisations, press officers' needs for and sources of information, media relations strategies and tactics, and press officers' perceptions of their own and others' roles in the communication process. Press officers were assured their anonymity would be preserved unless they expressly gave permission for attributed comment to be used. All quotations in this chapter are drawn from the interviews.

### 7.1 Reasons for seeking media access

Different organisations have different reasons and different levels of motivation for seeking media access. The press officers interviewed offered various and often complex reasons why press coverage was important to their organisation. Some of these stemmed directly from the organisation's explicit roles and long term objectives (e.g. to increase public understanding of a particular issue), some were associated with shorter term priorities (e.g. campaigning about an issue due shortly to be debated in parliament), and others were of a more general nature (e.g. to enhance the organisation's image and credibility). There were several common themes, and some reasons for seeking media access were obviously shared by organisations of similar types.

Several press officers thought good press coverage could enhance the image and credibility of an organisation among its target audience(s). A good image and high level of credibility were themselves desired for many reasons, but basically because they would encourage support for the organisation and its work. Umbrella bodies were keen to develop the image and credibility of the whole sector which they represented.

A positive image was considered vital for charities dependent on public contributions. This was mentioned by all of the charity representatives interviewed. For example:

[Press coverage is important] to explain about the organisation, to publicise the [organisation] as such. I think for any charity that is important, because we're dependent on our image really for our fundraising.



[Press coverage] is terribly important because as a charity we depend on the goodwill of the public to support us... At the end of the day, we want to make the research that we are doing understandable to the public and to make people realise why it is necessary that they get involved with us.

A positive press profile was also seen as a means of attracting (or maintaining) funding from governmental sources. The MRC were thus keen to see their work reported in the lay media because media coverage (and hence perceived public awareness and support) was thought helpful in negotiations with the government over funding levels. Conversely, unfavourable coverage which could tarnish such an organisation's image or dent its credibility was feared for its possible financial consequences.

Commercial organisations had different fears. Pharmaceutical industry representatives acknowledged that the public image of the industry was not wonderful, and were keen to use media coverage to improve this, but at the end of the day, the link between their public image and financial health was indirect and fairly weak. Adverse publicity about a particular drug could lead to reduced prescribing or even withdrawal of that drug (and thus reduced profits for the manufacturer), but representatives of the pharmaceutical industry were more concerned about legal and policy changes which might affect them such as, at the time of the interviews, the introduction of prescribing budgets and indicative prescribing for general practitioners, possible changes in patent law, and pharmaceutical regulation in Europe.

The credibility thought to be accrued from a media mention in the role of an authorised knower was valued because it was thought people would listen more seriously in other contexts to people or organisations whose knowledge and views had been sought by the media. This motive for seeking media access was particularly applicable to organisations with interests in health education.

If you're seen quoted as an authoritative source of health information in the press or on the television news, then your information in the GP's surgery has that added bit of credibility.

Credibility was also recognised as valuable for communicating persuasive messages. One interviewee noted that once one journalist had quoted an organisation's representative as authoritative, others would approach them for comment and media attention would snowball. Enhanced credibility among journalists was thus particularly valued because it could further increase media access.

Media access was sought to raise public awareness, of the organisation, the services it provided, and the subjects with which it was concerned. This was seen as particularly

important by organisations keen to encourage uptake of their services and/or to attract high calibre researchers to work with them.

If [sufferers] don't know we're here, they're not going to find us.

When editorial coverage is gained, you're appealing to potential fundraisers, doctors and surgeons. It's important that doctors and surgeons know what we're up to as well so that they know we're a source of funding for research and an authority on the subject.

It is illegal for pharmaceutical companies to promote prescription drugs direct to the public, and most of their marketing efforts are directed at general practitioners, but the spread of "news" that a new drug had been discovered or launched could be welcome for its (strictly unintentional) generation of patient demand for a product. A more general marketing ploy was adopted by the health food industry. The BHFTA press office had been set up with the aim of seeking to improve media access on the part of the health food industry, after a spate of "negative coverage" was perceived to have weakened its credibility. A favourable image was considered important for effective marketing for the industry.

Press coverage was sought by some organisations to increase public support for a particular cause. The "support" desired could take various forms. OPCS was generally keen that the public were aware of its role, but also wanted to encourage people to co-operate with censuses and voluntary surveys. Some organisations saw media access as an important means of gaining support for campaigns (both short and long term), or as a means of changing a climate of opinion (e.g. by influencing norms of acceptable healthy behaviour or by reducing the stigma attached to certain conditions). For example, an FPA representative commented:

There are issues that we are really concerned about. We have a lobbying or advocacy role. One issue is the need for better sex education, and the reason we're seeking coverage is to highlight that issue and to get it talked about and hopefully, through that, to lead to some change.

Press coverage was generally seen as a major component of most campaigns, and although organisations actively seeking change would try to lobby decision makers by complementary means too, it was thought that newspapers in particular were an important means of reaching politicians. However, organisations with a "direct" link to the relevant decision makers might avoid making a noise in the press if they thought they were more likely to achieve their aims in private discussions:

One of the most important parts of our remit is to advise the Secretary of State for Health. So if we've got that direct lobbying kind of link, we don't necessarily



need to be always bashing out press releases to demand this, that and the other, because our route of advice is more direct.

Organisations without specific campaigning roles might need to be careful not to be seen to be making explicit demands in the press.

As an organisation, it is not in our remit to change the law, but we can put pressure on and work with others whose remit it is. Press coverage is important to influence a climate of opinion.

It is difficult to distinguish clearly between attempts to "influence a climate of opinion" and attempts to "educate", particularly when emotive issues are involved. Several organisations were trying to use the media to communicate "balanced" information about the use of animals in medical research. Media relations efforts to shift the climate of public opinion on this topic were to be found in both medical research charity and pharmaceutical industry sectors, which otherwise differed in their motivations for seeking media access. They were united in a common perception that the future of their activities was threatened by adverse public opinion, and by the fact that the image of science suffered when associated with cruelty to animals. Representatives of both sectors sought positive media coverage as a possible means of enhancing recruitment of young people into science and medicine.

We want to encourage more good people to take up science as a career, so there are lots of ways the press are important to us in creating a whole positive atmosphere about scientific research.

An image of responsibility and accountability was considered desirable by many of the press officers spoken to, particularly those making use of public money. The fact that the media were seen as an important means of letting the public know how their money had been spent was another strong driving force behind charities' efforts to get science and research covered in the press. The motive of appearing accountable was not limited to the charity sector, however, and an MRC press officer commented:

We don't have to make money, we're given money, but we have to be seen to be using it properly.

Several organisations with subscribing members (individual or corporate) tried to use the media to publicise their work and to assure their members that they were both working well on their behalf and were seen as credible among a wider audience. A typical comment from a professional association was:

[Press coverage] is important to show our membership that the College is an organisation which is recognised and respected by the media as a whole. It enhances our prestige.

Different organisations were trying to place different issues on the public agenda. Their topics of concern were often obviously determined by external conditions and internal priorities, and would thus shift over time. Those mentioned by the press officers interviewed included: particular diseases; behavioural, societal or environmental causes of ill health; client groups; particular means of trying to alleviate ill health (medical research, health and personal social services etc.); and political or social issues affecting any of these.

Press officers recognised subtle (or not so subtle) differences in the messages put out by different organisations in the same field, and were aware of the presence of competing voices as they worked. In some cases, media access was sought specifically to counter or anticipate messages put out by other organisations. From the interview data obtained, it is possible to identify three different kinds of competitor: outright antagonists; groups with similar aims but different ideologies, philosophies or approaches; and friendly rivals.

Outright antagonists were fundamentally opposed on an issue and would put out contradictory messages. To the HEA, the pro-smoking lobby were outright antagonists. MIND and the RCPsych, on the other hand were both concerned to use the media to raise awareness of and reduce the stigma attached to mental illness/distress, but approached the subject from the perspective of consumer and medical professional respectively, and were sometimes in disagreement about treatment/care approaches. The cancer research charities (and some other medical research charities) could be regarded as friendly rivals. They have similar aims and philosophies, and sometimes collaborate sympathetically, but are nonetheless aware that they compete for shares of public money.

Several press officers mentioned the difficulty of evaluating press coverage (see 7.12.2 and 7.12.4). Determining the effects of media coverage is even more problematic, and it is beyond the scope of this project to discuss that in detail. However, it should be noted that some of the stated motivations for seeking publicity reflected beliefs or assumptions rather than empirically tested knowledge about its impact. Occasionally, direct benefits had been seen, for example:

Often our first contact with civil servants will come through something they read in the newspaper, even though we might have mailed them several times.

However, many of the hoped for benefits were indirect and not quantifiable. Examples of these included encouragement of a favourable fiscal environment in which to operate and the potential for "a major public fuss" if policy changes or financial cuts were seen as threatening an organisation's work. The press officers interviewed were generally not



expecting miracles from press coverage, and tended to use newspapers as one channel of communication among many, although they did value positive press coverage.

Most of the organisations included in this study sought a high (and positive) public profile. The reasons for given for this were largely similar to those identified by Schlesinger et al (1991) among organisations concerned with crime and criminal justice. They were often related to organisational imperatives such as the needs to increase resources, encourage recruitment and boost membership morale. Organisations were desirous of a good public image and concerned to get their efforts noticed. Depending on their status, interests, available channels of influence and target audience(s), organisations differed in what they hoped to benefit from press coverage. The hoped-for benefits affected the importance attached to media relations activities, the type of information given to journalists and the manner in which it is provided.

## 7.2 Organisational structure

The organisations included in this project were of diverse types, sizes and structures. These cannot be fully described here, but features which press officers thought affected the way in which they worked were: the formal position of the press office within the organisation; the geographical dispersion of the organisation; the division of working responsibilities; and the place of the press office in organisational culture. These could influence both formal and informal patterns of communication within the organisation.

The formal position of the press office and individual press officers within an organisation could affect their involvement in information flows directly and indirectly. Senior press officers who are part of a senior management team are likely to be well informed about organisational decisions and activities from an early stage, and to be able to feed the media relations point of view into planning processes. Those with a high status within the organisation might be taken more seriously when requesting their office be kept informed about developments in different sectors of the organisation.

Perceptions of the role and importance of the press office within the organisation could obviously also affect its involvement in information flows. One press officer commented that several sections of the organisation seemed reluctant to deal with the press office, and put this down to the fact that:

Culturally this place as an organisation has seen communications as a support function and not as integral to the achievement of (its) aims.

The extent to which a press office can get involved in information flows depends largely on its resources. Several of the organisations studied invested significant amounts

of money in media relations, supporting several full time press officers. These could establish and maintain more contacts than those with more limited resources. Several press officers from organisations with large press offices described how tasks were divided. Subject specialisation was an option favoured by some and disliked by others. Its advantages were that press officers could acquaint themselves with particular subjects, groups of staff and appropriate media contacts. The possible disadvantages were that individuals could become too possessive of a subject area and that the press office could become over dependent on the availability of one person. Several press officers noted that on occasions when many media enquiries were received on one topic, all staff needed to be able to help answer them.

### 7.2.1 External press relations offices

Two of the organisations studied made regular use of external press relations agencies. In both cases, the link with the agency was well established, close contact was maintained, and both parties were satisfied that the arrangement worked well. One also had a small in-house press office, which handled most incoming media enquiries, and the other had an internal liaison person. Favourable comments about the media relations provision of these organisations were made by several of the journalists interviewed.

The main advantages of external media relations support as perceived by internal staff were: that a different (fresh, possibly more objective) view of the organisation and its activities could be gained and advice given accordingly; and that another organisation had to worry about employing extra people for administrative and clerical tasks at busy times. A representative of a media relations agency which specialised in handling accounts for organisations interested in health and medicine thought their clients would benefit from their specialist experience in particular types of public relations and from their close links with the relevant specialist journalists:

Our experience with one medical client will help us to provide a better service for the next. We are developing very close links with the correspondents on the national media. We are talking to them very regularly... We learn their interests, we learn their preferences and we can understand the way they work much better. That relationship will benefit all our clients.

### 7.3 Press officers' information needs

Press officers need to be well informed on a wide range of matters if they are to provide accurate information to meet the needs of journalists and to satisfy their organisations. The detailed information needs reported by press officers in this study



varied with the characteristics of the organisations and the precise remit of the press office, but three main areas were identified. Press officers need to know about: their organisation (its aims, policies, activities and personnel); the context in which their organisation operates (related organisations and others working in similar fields, developments in its areas of interest, and the social, political and economic backdrop); and likely media interest in their organisation and its sphere of activity.

### **7.3.1 The organisation**

The person who has to represent the organisation should know almost as much about it as the general manager.

Press officers need to be familiar with the aims, policies and general ethos of their organisation if they are to communicate appropriately with the media. They should be aware of the image the organisation wishes to project, the messages it wants to publicise and the issues it wants kept private. If the organisation has an official stance on a particular issue, the press officer should know about it.

Familiarity with the organisation's media relations policy, whether this is explicit or implicit, is vital if press officers are to work to the satisfaction of their employers. They need to know what kind of media profile their organisation seeks, what it aims to achieve via media relations, and any rules governing dealings with journalists. Some organisations had policies of not commenting to the media on particular issues, and some preferred designated personnel to speak to the press in at least certain circumstances.

Press officers need to be well informed about the current activities of the organisation, particularly those in the public eye, both so they can handle enquiries effectively and so they do not miss opportunities to make appropriate proactive approaches to the press. They do not necessarily need detailed subject knowledge, for example about medical research, themselves, but should have a general awareness of what is going on and a means of identifying those in the organisation who could provide details if required.

### **7.3.2 The organisation's context**

Press officers gave several obvious reasons for trying to keep up-to-date with what was going on in their organisation's areas of interest. If they were aware of potentially newsworthy activities or developments, they would know to expect enquiries from the media, could prepare appropriate responses from an informed position and could make the most of opportunities to approach the media when a subject became topical. Early

information could be especially important if new issues arose to which the organisation did not have an obvious response:

In an organisation like this, I can't dream up a statement off the top of my head. You've got to work ahead of the issues... You've got to be in tune with what's going on.

Press officers would try to take a wider context into account when assessing the newsworthiness of events or deciding whether to enter a debate in the public arena. They could also tailor information more appropriately if they knew the wider background in which it could be set and interpreted. Statements which might offend organisations working closely with their own, or which could jeopardise future developments would obviously be avoided. For example, the HEA might decide not to take an issue to the media if they were hopeful of private discussions with the Secretary of State for Health achieving the desired result and thought publicity might hinder their cause. On the other hand, if a minister was having difficulty getting adequate support for a bill they favoured, they might try to "make a lot of public noise" about the issue.

Information about the media relations activities of other organisations could be useful. Press officers would try to anticipate and counter the messages of antagonistic organisations, and possibly to get their viewpoint into the media if an organisation with similar interests but differing ideologies and/or approaches was quoted. Despite their awareness that they were all chasing a limited amount of news space, several press officers from organisations with similar interests (friendly rivals) mentioned collaborating over the timing of release of information to the media. They would avoid generally avoid competing with each other's stories as far as possible, but might try to encourage coverage of a topic of common interest by timing their separate news releases on a given subject to reach journalists' desks on the same day. Familiarity with other organisations' interests and press office capabilities would also allow press officers to refer media requests which their own organisation could not satisfy to organisations more likely to be able to do so.

Several press officers mentioned that by keeping up to date themselves, they could usefully alert other members of their organisation to relevant happenings in the field. The media were seen as an important means of keeping up to date (see 7.12.1).

### 7.3.3 Umbrella or member organisations

Several of the organisations studied were in hierarchical relationships with other organisations, either as umbrella, parent or representative bodies or as members.



Awareness of developments in related organisations could be particularly important in such cases. The umbrella bodies spoken to were keen to keep themselves informed about what their members were doing in order to be credible as sources of information.

Representative bodies and national headquarters of organisations with local branches were also keen to keep their members and branches informed of their own policies and activities. Two examples will illustrate the main reasons why. The ABPI was keen to keep member companies well informed of its activities to remind them that it was making good use of their subscriptions and working actively on their behalf. The FSID kept their regional staff and local groups of bereaved parents well informed, sending press statements to them whenever a new position was adopted on an issue so that they would be able to respond appropriately (and, most importantly, in line with new organisational policy) to any enquiries they might receive from local media.

#### 7.3.4 Likely media interest

Press officers tried to anticipate likely media interest in their organisation and its activities in order to be better equipped to prepare to handle enquiries (e.g. by anticipating angles of questioning) and to make the most of opportunities for proactive dealings with the press. Knowledge of the particular interests of different media outlets or individual journalists was thought helpful for targeting stories.

#### 7.4 Obtaining information about the organisation

Not surprisingly, given their range of information needs, the press officers spoken to were dependent on information from a variety of sources, and mentioned many different routes by which they received information from internal and external sources. The various means identified by which press officers were either kept informed or kept themselves informed about developments and activities within their organisation could be categorised as: formal mechanisms to alert the press office; informal mechanisms to alert the press office; and requests for information initiated by the press office. Most press officers obtained information via all three routes. The nature of the mix and the extent to which press officers felt adequately informed were apparently affected by: the structure of the organisation; the position of the press office within that structure; the extent to which media relations and the press office were an established part of organisational culture; and the personal idiosyncrasies of organisational personnel.

#### 7.4.1 Formal mechanisms

Several organisations had set routines to ensure press officers were informed of what went on at official meetings, although the mechanisms varied. Some press office representatives were members of committees with full rights to attend and participate in meetings, while others were invited to attend as observers, or were routinely sent agendas and minutes.

Formal mechanisms were also used in some organisations to alert press officers to forthcoming publications by members of their organisation. At the ICRF, scientists submitting papers for publication in peer review journals were required to provide a copy for press officers, who could contact the author(s), judge whether it contained anything of potential public interest, and plan approaches to the media as appropriate (see 10.6). Press officers at the CA were regularly given advance schedules of report publications so they could plan ahead for press relations activities.

The above examples involved formal requirements to inform press officers whenever certain routine situations arose. Another way of formalising communication with the press office was to give official responsibility for alerting the press office to particular individuals. At the time of interview, the MRC had just instituted plans to appoint press liaison officers within each research unit who would receive media training, serve as a press contact for their section, and be responsible for keeping the press office informed of developments in their section. As a large, complex organisation with distinct working groups operating on geographically separate sites, the MRC hoped thus to encourage more frequent and closer contact between research teams and the press office.

The two approaches (formal requirements to inform press officers of particular situations and formal designation of responsibility to particular individuals) are not mutually exclusive, and could be complementary. The former should ensure regular sources of information were thoroughly covered, while the latter, if the designated individual was able and willing, would encourage a wider variety of newsworthy or interesting events to be brought to the press officer's attention.

#### 7.4.2 Informal mechanisms

Much information apparently reached press officers by informal routes, and some organisations had no formal mechanisms for alerting the press office. The BHF asked scientists they were funding to keep the press office in mind when they had papers accepted for publication, but had no formal requirement that they alert them.



Informal arrangements are probably most likely to be successful in relatively small organisations where the press officers are well known and easily accessible, and where letting them know about things is an accepted part of the culture. Some press officers felt they were engaged in a constant uphill struggle to remind members of their organisation that they should let the press office know what was going on in their patch.

I've tried to make sure that we do everything we can to make sure we're fully informed. It's certainly a *task* for us. We have to keep reinforcing the fact that we need to know.

Various tactics were used to raise the press office's profile and cultivate positive attitudes towards media relations, including the holding of Christmas parties and sandwich lunches for new recruits.

#### 7.4.3 Press office initiated requests

The press officers generally accepted that they were never likely to be one hundred per cent up to date and informed, but some had to put in more effort than others to get basic information about developments in their organisation. One lamented:

I think we do get the information, but we have to be constantly proactive about getting it, going out to people in the organisation and nagging them: "Why haven't you sent me a copy of this?" or "Do you know what's happening about that?". We do have to be active to make sure we're informed.

Another only had to search for information when sources "dried up" temporarily, for example when new non-media-aware staff joined the organisation, when there was little going on, or when people had had "bad" experiences with the press.

In organisations where the press office was well established, press officers seemed generally satisfied that major items of information routinely reached them. However, some information seeking on their part was thought desirable, both to identify stories which no-one else had seen the potential of, and to find icing-on-the-cake type stories:

I think where we still miss out is some of the smaller, positive, good stories that there must be in any large organisation. Unless you've got the time to just go round chatting to people with no aim other than finding out what's happening, you miss out on those sorts of stories.

A lack of time to visit people was bemoaned by several press officers.

#### 7.5 Obtaining information about the organisation's context

Channels of communication from other organisations might run either direct to the press office or to other members of the organisation and thence via internal channels, formal or informal. The latter was probably dominant, certainly in the case of joint

working initiatives or discussions between senior personnel of different organisations. Several respondents noted that the DH would often consult interested bodies (via experts and managers) before introducing policy issues into a wider public arena. However, communication between the press offices of organisations working in similar fields, particularly those in hierarchical relationships and friendly rivals such as members of the charity sector, was common. Several press officers said they disseminated information to individuals in organisations working in similar fields by including them on mailing lists for news releases or otherwise alerting them to forthcoming media announcements.

Of course, press officers might also actively seek information about their organisation's interests. Most of them kept an eye on governmental activity, and media monitoring was widely used as a current awareness tool. Media monitoring, together with regular contact with journalists, was also used as an indicator of likely media interest in the organisation and its sphere of activity.

#### **7.6 Proactive and reactive media relations activities**

Proactive media relations activities are typically defined as dealings with the media initiated by the source organisation. Commonly noted examples are news releases, press conferences, and offers of exclusive stories. Reactive media relations activities, the responses which source organisations make to approaches made by media representatives, are thought to consist basically of handling media enquiries.

I would argue that such a simple classification of proactive and reactive media relations according to activity types is inadequate. Several of the organisations studied in this project actively and of their own accord put effort into developing their ability to handle media enquiries in order to encourage journalists to contact them in preference to other organisations. Such effort could be regarded as proactive. On the other hand, press officers sometimes organised press releases or press conferences in reaction to media activity. One press officer had been asked by a journalist with a story idea to provide a press release which could serve as a news peg for the story. That said, the standard distinction between proactive and reactive media relations provides a useful way of organising material and will be adopted here for convenience.

#### **7.7 Handling media enquiries**

In handling media enquiries, press officers ideally hoped to provide journalists with the information and assistance they needed (and in time to meet deadlines) while also



encouraging positive publicity for the source organisation and emphasising any messages it was keen to put out. Thus a certain amount of tension was inevitable, but finding a compromise seemed to be regarded more as a positive (creative) challenge than as a particularly burdensome problem.

This section will consider: the types and numbers of enquiries received; press officers' perceptions of why journalists approach their organisation and how they encourage journalists to do so; the resources used to handle media enquiries; and the roles of press officers and others in handling enquiries.

#### 7.7.1 Types of enquiries

Journalists might telephone organisations for a variety of reasons, and media enquiries vary in complexity and in the time, effort and resources required to satisfy them. The enquiries described by press officers in this study could be categorised as requests for:

- 1) factual background information (including statistics)
- 2) details of recent organisational activities (research, campaigns, work programmes etc.)
- 3) statements of organisational policy
- 4) expert comment or opinion (on particular situations, other people's research etc.)
- 5) interviews (with experts, senior personnel or case-study patients/subjects)

Enquiries could also be categorised by subject and by "trigger". Several press officers had different procedures and protocols for handling enquiries about different subject areas. For example, professional associations might distinguish between clinical/medical and medico-political topics, and charities between medical research and fundraising activities. Distinctions were also made between enquiries which were responses to the press office's own proactive media relations initiatives, and those initiated by journalists.

#### 7.7.2 Numbers of enquiries

Press officers' estimates of average numbers of media calls handled by their organisations per day varied greatly. When health service reforms were high on the media agenda, the BMA press office was reputedly dealing with between 120 and 180 calls per day, while the OHE averaged no more than 3 or 4 media enquiries per week. Obviously the averages for any organisation may rise or fall over time as different issues and topics become prominent in public arenas, and as their own media profile changes. Even over short periods of time, press officers were unanimous that there was no such

thing as a "typical" day in terms of numbers of media enquiries, and they described dramatic spasmodic fluctuations in activity levels.

In the event of a flood of media enquiries, everyone would turn their hand to the subject of the moment. In large press offices, specialisms would disappear.

It [the press office] is run like a news room in that sense. There's a health correspondent, a political correspondent etc., but when the Gulf War is on, they're all war correspondents.

Extra staff might be mobilised to help take telephone calls, but this could cause problems if they were not fully up to date about the latest issues and developments. Press officers might draft guidelines or even statements which could be read over the telephone. Some resorted to issuing a press release or even calling an emergency press conference. If a rush of enquiries could be anticipated, press releases or a press conference would normally be planned and held in advance to prevent the switchboard being jammed.

### 7.7.3 Predictability of enquiries

Press officers tried to anticipate popular topics for enquiry so they could prepare to give quality responses (according to their own criteria) to as many people as necessary. They could normally predict periods of intense activity on a particular topic when their own organisation had made a major announcement, and they stressed the importance of being informed in advance about organisational activities and of keeping an eye on relevant current affairs so they could prepare responses. They might have time to prepare for the media impact of other organisations' activities if they were included on their mailing lists for news releases or otherwise alerted by friendly press officers to forthcoming announcements.

No amount of effort would allow all types of questions or periods of intense activity to be predicted, as issues of concern might hit the headlines suddenly, for example if a celebrity was struck by a particular condition or a rival organisation made an unexpected statement. However, the press officers generally thought their work was a lot easier if they were as clued in as possible to what was going on.

### 7.7.4 How journalists choose sources

Several press officers thought it inevitable that they would receive calls from journalists when certain subjects came onto the media agenda, even if it had not been their organisation which put them there. When community care policies were being debated, the RCPsych would anticipate enquiries from journalists wanting an expert



opinion of the psychiatric implications of various courses of action. When cot deaths were in the news, for example if the child of a celebrity died, the FSID would expect calls because it was known as the major UK organisation connected with the problem. It was accepted that journalists turned to organisations recognised as sources of expert advice and comment. As one press officer said:

The reason that we're being contacted is that we have expertise and knowledge, and we do make it available.

Several press officers were aware that journalists' perceptions of organisations and their press offices were influential. Independence and involvement in serious scientific research were thought to be regarded as positive attributes by the mainstream media, and tended to be capitalised on by those organisations possessing them which sought a high media profile. Several press officers stressed the importance of being as helpful as possible to journalists, even when their organisation was unlikely to benefit from the coverage, in order to encourage journalists to use them as sources.

Bearing in mind that the journalistic world is in some ways quite a small one, we try to be as helpful as possible for our own purposes, really: if we're useful to somebody, they'll probably remember and come back to us as first choice.

It was thought that an unhelpful press office could alienate journalists:

Certain press offices have rather a bad reputation of turning away all calls that don't have publicity value for them, which in the end tends to generate a lack of good will from the journalists.

Several press officers tried to encourage enquiries, not only by improving their ability to handle them and providing a good service, but by actively alerting journalists to the services they offered. Opportunistic alerting mechanisms were most common, with press officers for example telling journalists about an information resource during a telephone call. Some alerting mechanisms were more systematic: the RCPsych periodically sent journalists lists of topics on which they could provide expert speakers.

#### **7.7.5 The role of press officers**

Press officers identified several roles they played when handling media enquiries:

1. Verbally answering requests for basic factual information, details of recent activities, statements of (established) organisational policy
2. Providing or directing journalists to written information (basic facts, organisational literature, details of recent activities)
3. Referring journalists to more appropriate organisations or individuals if they themselves could not provide the required information

4. Referring journalists to appropriate experts (internal or external) for detailed information or comment, and facilitating interviews as requested
5. Briefing the experts they ask to provide comment
6. Commenting on certain issues themselves

The extent to which they played each role depended on the organisation's media relations policy, their own preferences, the actions of other members of the organisation, and the nature of the enquiries.

#### 7.7.6 Resources used to handle enquiries

Press officers used both written/recorded information and human expertise to handle media enquiries. The primary written/recorded information sources used in this context included: reference books; journals; reports; booklets, brochures and newsletters produced by the organisation (which often had a promotional aim); databanks; and press cuttings. Press officers would use these to check facts and provide details of recent activities and would sometimes supply copies of written material to journalists. Secondary sources used to identify experts or written information of direct use to journalists included directories of personnel and bibliographic databases (on-line or CD-ROM). Not all resources were held in press offices, and some press officers made frequent use of their organisation's library.

A detailed study of the use press officers made of different information sources was not carried out, although several interviews revealed glimpses of innovative, non-conventional or unexpected uses of different sources. For example, bibliographic databases were used to identify experts on particular subjects (see 7.8.1), and newspaper cuttings libraries were relied on quite heavily. This latter behaviour is more characteristic of journalists than information managers and might reflect the press officers' backgrounds (see 7.13) and/or their perceptions of their "clients'" preferences. Press officers' use of sources could be an interesting area for further study.

The knowledge and expertise of organisational personnel (including the press officers themselves) was perhaps relied upon more often than written/recorded information sources. Many media enquiries could apparently be satisfied during a telephone conversation with either a press officer (particularly for background information or interview arrangements), a manager (for attributable statements of policy or comment), or a scientific or health professional (for detailed explanation or expert comment).

Press officers would normally answer simple factual questions over the telephone, either from their own knowledge or with the use of reference materials. Sometimes they



would undertake quite lengthy information searches to satisfy a journalist's request, although the amount of time and effort considered possible or justifiable varied.

The scope of subjects on which press officers were permitted to provide information was restricted in some organisations and it was generally felt that press officers should provide only unattributed information (see 7.7.8). Several press officers mentioned arrangements whereby they would provide a quotation from and on behalf of a senior member of their organisation. DH press officers, in true civil servant fashion, might write statements which ministers approved for use as if from their own mouth.

All of the press officers would give journalists copies of relevant reports, articles or brochures if they or the journalist thought they might be useful. Some press officers had prepared briefing packs on certain subjects for media use. Printed information would often be faxed to help journalists working to tight deadlines, and the amount and type of information sent would be tailored to the intended article or programme.

We have a standard briefing pack, but [journalists] may want more detailed information about one subject or another, in which case I'll put together a special package.

Verbal and written information were generally regarded as complementary. One organisation in which the press office was newly set up and which had only a limited library of material likely to be useful for journalists had formalised this complementarity. When a journalist rang with an enquiry, the press officer would try to identify information to suit the angle of the story and the depth required, send it to the journalist and then contact an expert whom she would ask to telephone the journalist to make sure he/she had and could understand all the necessary information.

#### 7.7.7 Referring enquiries on

While most media enquiries were apparently reasonably well targeted, some press officers cited amusing examples of cases in which journalists had misunderstood or overestimated the scope of an organisation's interests. Those press officers keen on maintaining a good reputation among journalists would always try, in accordance with policies of never sending a journalist away empty handed, to direct enquiries which they could not satisfy to more appropriate sources. This could attract its penalties, however:

Sometimes we are probably in danger of being used as a directory enquiries service because we try to be as helpful as we can.

### 7.7.8 Provision of comment

Most of the press officers spoken to tended to avoid being quoted by name as the source of comment or information, and encouraged contact between journalists and experts or managers, particularly for detailed enquiries. When such contact was not possible, press officers often tried to supply quotations attributed to authorised knowers.

The main objection to press officers supplying detailed information and comment was that journalists were more likely to get a complete and accurate picture by speaking with experts or people closely connected with the subject under discussion. However, even when established press officers were highly knowledgeable about their organisation and its subjects of interest they would often arrange for other people to serve as expert sources for journalists. On medical subjects, scientists and doctors were regarded as the only legitimate sources of information, and the lack of a medical qualification would disqualify even a knowledgeable press officer from providing comment.

Serious medical comment about a serious medical issue should not come from the press officer, who is not a doctor and is not qualified to comment on, for example, electro-physiological studies of cardiac muscle. They may know the answer, but it should not actually come from them.

Qualifications were less of an issue in other subject areas. The press officer quoted above went on to say that members of her office could provide comment on the organisation's fundraising policies and activities. However, there were other reasons why press officers preferred not to talk extensively on the record with journalists, not least the consideration that the people who carried out a piece of work should be the ones praised or criticised for it. Ill-feeling within the organisation was a feared consequence of press officers' names being published rather than those of experts or managers.

Some press officers were discouraged from commenting because they recognised the low standing in which members of their profession were held by the media. An RHA press officer caricatured his reputation as that of "the paid liar on behalf of the health service who carries a tin of whitewash". Presumably it was hoped that media coverage would be more favourable if the journalist viewed his/her interviewee as credible.

One positive argument for asking experts or managers to talk to journalists was that it gave an impression of an open organisation with accessible members. This was thought to enhance the image of the organisation as a good source of information. One press officer suggested that managers and experts should speak to the media on matters of importance because they should be (and be seen to be) responsible for their actions.



The senior managers here have a tag on part of their salary for public accountability, and they ought to be prepared to explain and justify, to defend if necessary.

Public organisations in particular are now encouraged by government policies to be (and to be seen to be) open and accountable. The current political climate thus reinforces the notion that the people who make decisions and carry out work should be talking to the media when comment is sought.

#### 7.7.9 Routing enquiries via the press office

Although press officers were not usually the preferred source of comment, most of the organisations spoken to had a general policy, enforced with varying degrees of strictness and success, of directing all media enquiries to the press office in the first instance. Press officers emphasised that this was not intended to prevent other people from talking to journalists, but to enhance the quality of expert-journalist interactions: "The last thing we want to do is to stop scientists speaking to journalists".

Four major reasons were given in favour of this policy. Firstly, press officers were in a good position to identify the most appropriate person in the organisation to handle a particular enquiry. The scenario of a journalist with a contact name asking to speak directly to someone not competent to speak well on the particular subject of the enquiry was feared in specialised areas of medical research. Secondly, press officers familiar with the different media could try to prevent misunderstanding and minimise the likelihood of adverse publicity by checking the credentials of the journalists and possibly briefing the expert or manager whose comments were sought.

We have a job to do in vetting the caller. We need to know why somebody's asking, we need to know the context into which they're going to put our bit of information, and we need to build up trust around that. We pave the way for passing calls on to a colleague.

Thirdly, press officers could use the opportunity to talk with both journalists and experts to maximise the benefit of media contact for their organisation. They could encourage journalists to incorporate messages the organisation was keen to promote and to include the organisation's name. They could also remind experts of the organisation's priorities. Press officers were thought more likely to consider such things important than other personnel. Finally, since most press officers were "responsible" for media relations, they needed to be aware of what was going on. Press officers who mediated calls would have some idea of the quality of the opportunities their organisation had received for media access, and would know what to look out for in imminent press coverage.

The press officers did not want to set unnecessary bureaucratic hurdles which discouraged journalists from speaking to experts. They would not (and probably could not) insist that experts refused to speak to journalists unless the press office had mediated the call, although one organisation requested experts in any doubt about a media call to offer to 'phone the journalist back and consult the press office for advice. Several organisations mentioned being more relaxed about the policy with trusted journalists and when regular contact had been established between individual journalists and experts.

Some press officers asked staff who had been contacted directly by journalists to let them know what had been discussed. This could prevent cases in which press officers sat wondering why they had received none of the calls they anticipated about a "hot" topic while experts were busily answering enquiries they had not expected. Other press officers felt they could not cope with reports from every staff-media encounter, and had to trust that most of them would go smoothly.

The policy of routing all media calls via the press office could not apply to small organisations with no designated press officer and was not always thought appropriate in other cases. In particular, it was suggested that enquiries from regional media about events or issues in their area were often best handled locally, because national press officers typically had no idea what was going on.

### 7.8 Identification and selection of experts

Press officers need to be able to identify experts who can serve as authorised knowers for the media, either on request or proactively. Several press officers, particularly in medical research charities and professional organisations, saw facilitating contacts between researchers and journalists as one of their key roles. When selecting experts, they took into account journalistic requirements, organisational interests, the particular topic under discussion, and individuals' attributes and attitudes.

Press officers sensitive to journalists' needs and preferences try to recommend individuals with subject expertise, good communication skills, titles or attributes which make them recognisably authoritative, and possibly (if a particular piece of research is being discussed) close involvement with the work. For most organisations, however, a "good" contact is one that will not only meet the journalist's requirements, but will also convey messages and images favourable to the organisation. Thus various other criteria may also influence the selection of experts for media exposure. Some press officers were particularly keen that the expert was likely to secure a mention for the organisation:



Obviously what we're trying to do is plug [organisation A]. So if they [journalists] are trying to find a doctor in a particular discipline, I will try to find an [organisation A] doctor. If they want someone to comment on, for example, a surgical technique, I will put them in contact with a surgeon who is funded by [organisation A] and make sure, as far as possible, that we get the plug across.

Factors other than affiliation which were taken into account included: designated spokesperson status, seniority, political astuteness, awareness of any sensitive issues, and known sympathy to the organisation's aims and policies. The relative importance of these would vary according to the type of organisation and the opinions of the press officer. For example, since doctors and scientists tend to be "placed" by the media according to their place of work, professional organisations are less likely to have a strong preference that the experts they recommend are drawn from their own ranks. If media interviews were likely to discuss the use of animals in medical research, consideration would be given to safety issues and the expert's family status too.

All other things being equal, press officers tended to prefer experts who had previous experience of media exposure or who had received media training, because (apart from the practice-makes-perfect type principle) this could provide assurance that they could speak competently in plain English and were au fait enough to be unlikely to make inappropriate statements with possibly damaging repercussions. Obviously if previous interactions with the media had been successful, this boded well for the future.

Factors which might influence selection of experts on any given occasion include: an involvement in the subject which enables an individual to speak from the angle required by the journalist; being well known to the press officer; being easy to contact and available within the time needed to meet the journalist's deadline; not having been overused by too many recent media enquiries (press officers felt that the goodwill of busy doctors and scientists could only be called upon so many times); and the particular criteria of suitability set by the media outlet (e.g. radio would obviously favour clear speakers and local media tend to prefer local experts).

Several press officers mentioned having to encourage and cajole scientists to talk to the media. They tried to decrease any hostile peer pressure by cultivating an awareness in the organisation of the importance of good media relations. However, they would not force scientists who remained extremely reluctant to speak to journalists, because it was unlikely they would perform well in those circumstances.

Obviously if all the criteria mentioned above were to be used to identify and select experts, detailed information about all potential experts would need to be readily available to the person making the recommendation. In practice, recommendations are

often made on the basis of more limited information. The next section outlines some of the tools available to press officers.

#### 7.8.1 Means of identifying experts

Well established press officers often "just know" which expert(s) would be most appropriate in a particular case, but to aid and complement human memory, several organisations had devised means to facilitate the identification of a pool of individuals who could be recommended to journalists. The four main means encountered during the interviews were: use of existing (normally internal) directories; use of bibliographic information; self selection; and recommendation.

Internal directories which provide information about personnel and their research areas or responsibilities are commonly used by press officers. At the MRC, for example, the MRC handbook, in which all MRC funded research is listed by title, is regularly used to identify appropriate speakers. More sophisticated directories are held on-line, can be searched by subjects, and are annotated with comments about individuals' communication skills and levels of media experience. Internal directories are obviously limited in that they only include the employees, members or research grant holders of a particular organisation, and they tend to include all of these without filtering out any "non-experts". However, they can be very useful in organisations which run a wide variety of projects, and often have the merit (from a journalistic point of view) of providing information about the hierarchies within research groups or working divisions, thus enabling the "top dog" to be sought out.

Several organisations use information about published papers as a guide to expertise. The RCGP, for example, selects experts with the help of their bibliographic database, GP-LIT. A subject search is conducted and the references and abstracts retrieved are used to identify appropriate experts for a particular enquiry (although informal consultations with clinical staff might be used to clarify the suitability of people identified by their published papers). The BMA also uses bibliographic information, but not directly. Staff have used it to help construct and maintain a database of experts in particular subjects.

We have a huge databank of experts on every subject under the sun, compiled from searching through the published evidence on who's written what.

Bibliographic data could often provide referral services with the names of individuals not affiliated to their organisation, which may or not be a problem for the organisation. It is worth noting that the two organisations in the sample which used this approach were



professional organisations, which, as has already been mentioned, are possibly less likely to be fussy about this. There is also a potential problem with referring journalists to experts identified by bibliographic information in that the experts have not necessarily consented to have their names given to the media. Although doctors and scientists can refuse to comment, a lack of co-operation may result in ill-feeling from the journalist (who was, after all, given a contact name) and might lead to unfavourable press coverage. Doctors who complain to the BMA that they are not happy for journalists to be referred to them are removed from the database and not used again.

The use of bibliographic information as an indicator of academic performance is widely acknowledged to be limited, and numbers of publications do not necessarily correlate simply with expert ranking. However, journalists do not necessarily need the best academic expert on a subject, and anyone who has published even one relevant paper in a peer-reviewed journal is probably considered to have enough subject expertise to talk to the media. On the other hand, written skills cannot guarantee oral ones, and not everyone who is competent to speak about a subject has published on it.

Several press officers mentioned having invited members to volunteer themselves as contacts willing to speak with the press. The RCPsych periodically sends a letter to members asking if they would be willing to speak to the media, and if so on what subject(s). Eminent individuals may experience some pressure to volunteer:

There are occasions when a leading psychiatrist in a particular area doesn't respond, in which case one might encourage him to be included the list [of experts for the media].

There are possibly problems of quality control when experts are self-referred, as individuals will have different motivations for putting themselves forward. The practice of inviting only eligible people (such as qualified members of a medical specialty) should reduce the likelihood of any major problems of this kind.

Research institutions or professional organisations might recommend that individuals whom they have found to be good communicators about their specialist subjects be included on lists of experts used for referral purposes. Motivations for doing this vary, but recommendations are likely to be made by people who consider their nominees potentially useful in terms of promoting their message or cause. The AMRC, for example, is keen to raise awareness of the amount and quality of research funded by charitable organisations and recommends to the MRS knowledgeable individuals whom they have seen "perform well" at charity annual general meetings etc.

Sometimes recommendations are invited. The BHFTA press officer approached member organisations asking them to nominate individual experts on vitamins, minerals etc. but stressed that people who were included on the list would be expected to talk on behalf of the health food industry rather than their current employer.

#### 7.8.2 Briefing experts and managers

Several press officers saw preparing managers and experts to speak to the press as one of their major roles. In addition to providing or arranging formal media training, they could ascertain any particular needs or problems associated with the latest media enquiry. If press officers clarified the affiliation of the enquirer and nature of an enquiry, they could brief the expert about the journalist, the kind of programme or publication for which their comments were sought, and possible angles of questioning.

#### 7.9 Identification of "cases"

Press officers varied in their propensity to provide "case study" patients or clients willing to speak to the media, and also in the ways they identified these. All were aware of the need to protect people's privacy and dignity, but they also recognised that the story or testimony of an individual could be an effective way of communicating, for example, information about a particular condition or the benefits of research. Several organisations were interested in finding parents who were willing to tell journalists that their child had been effectively treated (or better still, "saved") by drugs or techniques which had been developed or tested with the help of essential animal research.

The main difficulties of identifying case study patients to satisfy journalists' requests (few were proactively offered) were ethical. Doctors are required to keep information about their patients confidential, and thus should not divulge details to press officers or journalists. However, many press officers worried that if doctors were to make the first approach to a particular patient to ask if they would be willing to speak to a journalist, the patient might feel unduly pressurised to consent. Some organisations did use doctors to identify "suitable" patients who for, example had received a novel treatment and were relatively well, while others worked from different resources. Several filed unprompted letters of gratitude and other correspondence from patients or other members of the public with suitable experience, and would contact these people as needs arose on the grounds that they seemed willing to share their story with strangers. One professional organisation would refer journalists who requested case study people to appropriate



patient or consumer organisations. People who had agreed to talk to the media once were kept on file, and might be approached again if they were not thought "overworked".

Sometimes, journalists' requirements were quite difficult to satisfy.

We had one request for somebody who'd had a very bad experience of chemotherapy and then a better one: a change of drugs, change of hospital or more attempts to sort out the side effects... They can get quite specific.

Most organisations would try to help journalists, but information about individual patients would never be given out until consent was obtained, and most contacts between journalists and patients were mediated via the press office or an appropriate doctor.

#### 7.10 Proactive media relations approaches

Most of the press officers spoken to represented organisations seeking to gain or maintain a high media profile. They were proactive in terms of media relations, and sought to optimise their press coverage according to their own criteria. The press officers were generally aware that a high level of proactive activity required work and commitment not only on their own part, but throughout the organisation. Several of them stressed that they could only achieve good publicity for suitable material, and that they depended on good communication within the organisation to make the best use of available information. Also, as one said, "If you want a high profile and you're not squeaky clean, you have a problem". Proactive activities aim to disclose to a wider audience what the organisation wants to be known, but they also heighten the risk of exposure of things it would prefer were kept hidden.

In their proactive activities, the press officers were aiming, as would be expected, to offer information that the organisation wanted publicised in such a way that it was of interest and use to journalists. This was often difficult to achieve:

People in organisations like this have different agendas and priorities to journalists. It's a rather hit and miss business trying to match the two all the time. We try to select stories and angles of information which we think are going to be of interest to them [journalists], but often, obviously, for whatever reason, they aren't.

Proactive strategies often involved constructing an event or setting a story so it would both convey a message and appeal to journalists.

Our job is often to make a story such that through it the message will come out. For example, "Get your child immunised". Just putting out a bald statement like that is not going to work, so we have to try to look at innovative ways of doing things.

Several press officers found journalists' interests and preferences unpredictable, and the ever present possibility that a major news story could break and oust their own added to the potential for proactive effort to be frustrated.

The whole business of trying to get out there and tell your story and get your coverage is really fraught. You can imagine an endless series of hurdles that you've got to get over, and even when you've got some journalist talking to you and obviously wanting to do something, there's no safeguard against the Maggie Thatcher factor or Terry Waite being released.

Organisations might have various motives for seeking a high public profile (see 7.1), and might seek more or less media attention for different aspects of their work and interests at different times. Three major factors were mentioned as influencing the level of proactive activity in the organisations studied: the aims of the organisation and the importance of media coverage in achieving these; available resources (personnel, equipment and finance); and estimates of the likely success of proactive efforts.

Organisations seeking a high media profile would generally regard any favourable media coverage as worth the effort, if only for the snowball effect of further coverage:

In a sense press coverage breeds itself, because the more we are seen in the papers, the more journalists will come back to us and say, "What does the British Heart Foundation say about this new dietary regime, or tobacco advertising, or whatever?". We've then got an opportunity to comment.

Even if organisations only occasionally wanted to get a message through to large audiences, proactive press relations on these occasions could be considered worthwhile. Identification of a particular audience for a particular message could encourage press officers to target their proactive approaches (see 7.11.2). On the other hand, if alternative and possibly more effective means of communicating with that audience existed, press relations might not be a high priority.

Proactive media relations activities can be very time consuming for press officers and costly to the organisation. Some of the organisations studied invested much effort and many resources in media relations, but nonetheless, several press officers commented to the effect that they could do more if they had more. Resources are needed not only for immediate proactive activity, but also for its consequences: media coverage tends to generate enquiries from the media and possibly from a wider public. Before deciding to approach the media, press officers need to gauge whether they can cope with the possible aftermath, as well as assessing the risk that their efforts will be to no avail.

Most press officers had quite a repertoire of means for proactively approaching the media, which can only briefly be discussed here. Certain approaches were generally



considered more appropriate for some types of story than others, but the press officers and organisations had their own preferences and often differed in their chosen tactics.

#### 7.10.1 News releases

News releases were generally regarded as important means of approaching journalists. One press officer described four main types of news release, which can be summarised as: invitations to press conferences; statements about the organisation's activities; position statements; and statements responding to initiatives from other organisations.

News releases inviting journalists to press conferences were often thought hard to write well because of their conflicting functions. Press officers wanted to include enough of the story to entice journalists to the conference, but not so much that they were dissuaded from attending because they thought they had the whole story. Tensions arose when they also wanted to ensure that journalists who could not make the press conference had enough information with which to write a basic story.

News releases were apparently routine for occasions such as campaign and publication launches. However, several press officers expressed difficulty in predicting which stories about organisational activities and interests would appeal to journalists. For example:

Some of [the news releases] that I thought were wonderful stories fell absolutely flat: nobody picked them up. And from other stories that struck me as obtuse and obscure, we got hordes of people beating down the doors. So I don't know yet what interests the press about cot death and what doesn't.

Several press officers proactively issued news releases in response to activities outwith the organisation, usually in a positive attempt to further the cause of the organisation and/or its interests. The actions of others could be a great stimulus to activity, and an efficient fax machine would allow responses to be fairly quick: "When things are in the news which affect us, we'll be zapping out press releases".

New position statements are often triggered by external (particularly governmental) activities, so to some extent the last two categories of news release overlap. Some press releases about position statements were intended less to convey "news" for immediate inclusion in the newspaper than to provide background information for journalists:

Sometimes I use press releases just to inform journalists. I know it's not news, but inform them that we've got a view on something and it's there if they need to refer to it. I do it for that purpose rather than to communicate instant news.

Informing journalists of an organisation's stance is seen as an investment because journalists prefer to know what people are likely to say when choosing their sources of comment (see 8.6.1). The presence or absence of established communication links with

policy makers or the people organisations most want to influence will affect the numbers of press releases issued for these purposes.

#### 7.10.1.1 Characteristics and uptake rates

The features of good news releases mentioned by the press officers were: inclusion of appropriate amount of information (given it is destined for a news article); use of simple clear language; provision of a suitable story angle; tact (consideration of the likely impact of the information as written); and adherence to correct press release format. The press officers were unanimous that poorly written news releases were of no use at all. They tried to tailor releases as far as possible to meet journalists' needs, and certainly it was assumed that the information which left the source organisation on a news release would be presented in a format more closely akin to that of a newspaper article than to any executive report, documentation of a meeting's minutes, journal article or other written format in which it might have reached the press office. Taking this to its logical conclusion, many press officers aimed to produce news releases which could be printed in the newspaper as written, and to this end structured their news release text according to journalistic norms (providing a concise summary of the story in the first paragraph, writing in short sentences etc.). Journalistic training and/or experience was seen by some press officers as invaluable in this regard.

A couple of press officers had seen a (very) few of their news releases used verbatim in national newspapers, but they were generally aware that the information contained in a news release might eventually be presented from various angles in news articles of various lengths. One press officer described the ideal news release as a complete package which enabled journalists either to write a straight article of a few paragraphs or to form the basis of a longer feature.

The specific purpose of a particular news release would tend to influence its style. A news release about an aspect of the organisation's work, for example, would probably need to convey a self-contained story, while a press release commenting on another organisation's work might assume journalists already had the main story and simply supply quotes and comments from authorised knowers. Press officers' considerations when writing news releases about medical research, particularly that reported in journal articles, are discussed in sections 10.7 and 10.8.

The fact that a press release is a written rather than a verbal form of communication was seen as a constraining factor by several press officers. Written information is on



record and to some extent open to scrutiny by others. Press officers had to be sensitive to the possible repercussions of what they wrote within and outwith their organisations.

There are times when [we] might put out a press release which is rather more anodyne and rather safer than what we might say or the inference we might give something over the telephone. The rules are different. If we're talking to journalists we know and trust, we can be a little more aggressive about our policies or views on something. If we're putting out a press release, then clearly it's got to be something that a number of people internally, including the chief executive, are comfortable with.

Press officers were generally confident that good news releases were used (although not always, and not necessarily in a predictable way) by journalists, and were thus a useful way of securing copy. Several expressed doubt that journalists would admit to using them, assuming that they would spurn all public relations efforts, although they themselves were convinced they did.

A lot of journalists claim that they don't need press releases. We know differently from the coverage.

However, uptake rates even of good press releases were generally considered to be relatively low. Most press officers thought the best way to ensure maximum uptake of their news releases was to make sure they were only issued when it was really justified. They saw it as counterproductive to send out too many press releases, thinking that journalists would stop looking seriously at material from organisations which put out a lot of paper which said very little. Some press officers tried to improve uptake rates by making follow up telephone calls, but most did not have the resources to do this.

#### 7.10.2 Press conferences

Mixed feelings were expressed about press conferences, some press officers not finding them very useful and others regarding them as likely to generate the best coverage. There was unanimous agreement, however, that press conferences should only be held with good reason, when an organisation had something to offer which was worth journalists leaving their offices to find out about. As one said: "You have to have such a big story for a press conference". The press officers talked as though they bore the responsibility for judging appropriately when press conferences should be called. Some felt pressure from their organisations to call more than they themselves thought best, but they feared the consequences of wasting journalists' time.

One loses it all if one gets a good turnout and has nothing to say. I know of a voluntary body whose name is now mud with journalists because it summoned them, a lot of them turned up, and their reaction was "They had nothing to say, we shan't go again".

Even when there were big stories to be told, press officers identified problems with press conferences, including high cost, inconvenience to journalists, and unpredictable (usually limited) effectiveness. Several press officers thought that the time pressures under which journalists worked made press conferences increasingly less viable, particularly if the information being put out was available from other sources. Even if journalists were able and willing to attend a press conference, there was no guarantee that they would get the story into the newspaper. One press officer likened press conferences to a roulette game because she could not tell what would appeal to journalists or what other stories would appear on the day they were held.

Factors which would encourage the holding of press conferences were: a story which was thought to deserve more hype than a press release; a story likely to generate many time consuming media enquiries; and (linked to this latter) a desire to provide all journalists with the same information and to get a consistent message across.

There are two kinds of specialists when it comes to taking lots of press phone calls: there's the kind that starts off enthusiastically telling them everything but then gets bored as the calls go on; and there's the kind that gradually gets better as they take more calls. So if there are going to be lots of calls, we'd prefer to have a press conference or a press briefing. At least then everybody gets the same story.

Press briefings were mentioned positively by several press officers. As one put it, they were unlikely to be able to give journalists the instant miracle they wanted out of a press conference, so they had turned the focus away from quick news conferences to short press briefings which could bring journalists up to date on a research topic, give them a feel for what was going on in an area, and allow them to ask as many questions as they wanted of relevant experts. These had apparently proved successful, although the criteria of success were not explicitly defined.

### 7.10.3 News wire services

News wire services were valued by some press officers as a means of getting information to journalists, particularly those working on regional newspapers, quickly. One press officer also thought that a news wire service's "endorsement" of their information might encourage news outlets to use it.

News wires could be an effective way of reaching journalists with timely comment on other organisations' activities or statements which had broken as stories relatively late in the day. Some government department press conferences were held in the afternoon with stories embargoed until about 4pm. Other press officers attending the conference



would find it hard to get back to their offices, draft a press release and circulate it to journalists in time for deadlines, but could communicate their comments to a Press Association correspondent quickly and effectively.

#### 7.10.4 Offering exclusive information

A variety of reasons were given both for and against the offering of material exclusively to one journalist or newspaper. Decisions took into account the nature of the organisation, what it was trying to achieve, the type of story being offered, and the perceived risk/benefit ratio of the action. Press officers recognised that journalists liked to be offered material which rival newspapers would not have immediate access to, and were accustomed to being asked to let a particular journalist know first when they had a story. Often, however, other considerations outweighed the advantage to be gained for the organisation from fulfilling an individual journalist's desires.

Some press officers felt their organisation was unlikely to have stories which merited being offered as exclusives. They thought exclusive stories should be strong enough to make the front page of the newspaper they were first offered to and then be picked up by other papers in later editions or on subsequent days. However, even if an organisation did have such stories, there could be strong reasons for not giving them as exclusives:

1) A desire to treat all journalists equitably.

When deciding whether or not to give one journalist preferential access to information, press officers had to weigh up to what extent this would cause offence to others and whether it would damage future media relations. As one said, "If you start mucking around with journalists, you just lose good will". A policy of not offering exclusives was seen as a way of ensuring that all journalists remained reasonably sympathetic to the organisation. For some, this was considered vital:

One day we might kill a patient in a clinical trial, and we're going to want all the friends we can get out there if that should happen.

Public and charitable organisations were apparently more concerned to keep all journalists from rival news outlets on a similar footing than others, particularly for serious stories.

2) A belief that the information in question should at least potentially be given to readers of all newspapers

Several organisations with a strong sense of commitment to a wider public tended to avoid discriminating between readers by not discriminating between journalists. This was particularly true when the information was of immediate relevance to public

health, or was news of research funded by public money. Such information thus was extremely unlikely to be offered by mainstream medical research charities or governmental funding bodies as an exclusive.

3) A desire for wider coverage.

Some press officers aimed to spread information widely and felt that exclusives were not generally the best way to secure as much coverage as possible.

4) The risk that the journalist to whom the information is offered delays in using it.

One press officer described a problem experienced when a (feature) story about some "new and rather exciting research" had been given to one newspaper. The journalists had interviewed the scientists concerned but had not managed to get the information into print. While the story was on the newspaper's back burner, the organisation could not easily offer it to anyone else and was in the position of having no press coverage at all. (Such problems are more easily avoided with news stories by putting a deadline at the end of the exclusive period).

Despite the above reasons against offering exclusives, there were strong arguments for offering certain types of information preferentially to one journalist.

1) A "weak" story might be made more tempting by being offered as an exclusive.

Charities in particular might offer fundraising stories as exclusives "because sometimes that's the only way to get them used". Such stories would usually be preferentially offered to a newspaper whose readers were known to be generous donors or to a journalist known to be "friendly" to the organisation.

2) A story might be much more likely to interest one journalist than others.

It was suggested that certain stories would appeal to one newspaper (the *Financial Times*, for example, with its known specialist interests) or one journalist (their different propensities to cover "taboo" topics were particularly monitored) more than others. In such cases, there was less risk attached to putting all eggs into one metaphorical basket and a story could be made more attractive to the potentially interested newspaper or journalist by being offered as an exclusive.

3) Features were more likely to be offered as exclusives than news stories.

Stories without a hard news element and which could be run by other newspapers at later dates without being "old news" were likely candidates for exclusive treatment. Fun photo-calls of stunts or fundraising events might similarly be exclusively offered.



One press officer had once felt obliged to offer an exclusive about a research story to a television outlet which had been particularly piqued that a rival outlet had previously been given preferential treatment by a scientist affiliated to the organisation.

Some organisations which did not offer exclusive information proactively nevertheless gave special treatment to journalists who approached them for information. Obviously, press officers would tend to provide the required information to journalists who asked for it, and might say more to trusted journalists than to strangers. Some press officers proactively used the opportunity of a journalist ringing in with an enquiry to tell them about other things going on in the organisation, so those who asked would be given more than those who did not.

In all these considerations, press officers were trying to find solutions which, for the particular story, were most likely to be acceptable to the organisation. Although an exclusive offer could win welcome favour with one news outlet, the risks of offending others or of acting unethically by providing only restricted access to information which should be in the public domain often outweighed this potential benefit.

#### 7.10.5 Use of the telephone

Proactively, telephone calls were used either as the sole means of alerting journalists to potential stories or as a back up to another means of approach. If relatively few journalists were likely to be interested in a story, it could be easier to contact them by telephone than by press release.

Instead of writing it and sticking it in envelopes and getting it in the post, it's actually easier to just phone up the people who we know will be interested and sell it over the telephone.

Telephone calls were also used to encourage journalists to make use of press releases or other written material they had been sent, or to attend press conferences, although resource constraints would often preclude many follow up calls being made.

Telephone calls were probably used more for journalists known to the press officers. The element of personal interaction possible with a telephone call might give a journalist a bit more impetus to cover a story than an impersonal press release. Several press officers rated telephone calls highly as means of approaching journalists.

We find that most of our coverage comes from the time we spend on the phone, rather than from press releases.

#### 7.10.6 Taking journalists to lunch

Several press officers mentioned the importance of developing personal links between journalists, themselves and organisational spokespeople, and informal lunches were a popular means of doing this as they allowed press officers to meet journalists without the pressure of trying to communicate a particular story. The desired outcomes of such meetings were: that journalists' background knowledge of an organisation and its interests might be increased (and thus the accuracy and "balance" of future stories might be improved); that journalists were made aware of and encouraged to make use of the organisation's resources (particularly human expert ones); and that future meetings and interactions would be eased by familiarity and trust.

"Getting to know you" type meetings were thought particularly important for new press officers, new senior personnel who were likely to serve as spokespeople, or new specialist correspondents. Good links would both make journalists more likely to approach an organisation for information, and make it easier for press officers to approach journalists proactively. The press officers from organisations desirous of a high and positive media profile were basically keen to cultivate close relations between themselves (and their organisation's representatives) and journalists.

#### 7.11 Targeting different newspapers

Press officers acknowledged major differences between the quality broadsheet and popular tabloid national press and several noted that particularly on medical research subjects, they gave preferential treatment to quality newspapers. "We tend to send to the sensibiles" was a fairly typical comment. The reasons for offering at least some information to quality papers only fell into three main categories:

- 1) an expectation that the tabloids would be unlikely to print the information, and thus that sending it to them would be a waste of time and money.
- 2) a wish to avoid having their information subjected to the tabloid style of presentation.
- 3) better relations existed between source organisations and journalists on quality papers.

Factors thought to reduce the appeal of stories to the popular press included difficult or complicated messages, a large scientific component, and the lack of direct applicability to an individual. The NCB anticipated difficulty obtaining tabloid coverage of the ethical issues surrounding genetic research and biotechnology in the popular press because there are few clear answers and the subjects do not lend themselves to tabloid style coverage.



The best working practical advice ... is incredibly dull for the popular press. It hasn't got anything punchy and black and white, and it doesn't have the ideal picture of a child or baby that you could attach to it.

Some organisations did not want to take the risk of having stories sensationalised, or of seeing "good science put into half baked articles". Some health topics were thought more prone to sensationalist treatment than others. As one press officer observed,

If you're dealing with the subject of sex as we are, the *Sun* is not likely to give a very balanced objective report on it.

The fear of information given to the popular press being handled in an unacceptable way may have arisen from people's own previous bad experiences or those reported by another. On the other hand, positive experiences with the popular papers could enhance press officers' willingness to work with them. One mentioned being "very encouraged" after her first cautious dealings with the *Sun*.

The quality of the relationship between source organisations and journalists will affect the flow of information between them. Press officers find it easier to use friendly contacts they have among journalists than to approach people whom they do not know. One conducted her first dealings with the *Sun* by fax so that everything was on record in case of anticipated problems. Such precautions would probably not have been taken with broadsheet journalists. Telephone calls in particular are more likely to be made to journalists known to the press officer. Knowing a person's face, having met them and spoken with them previously, can ease the flow of information.

The reasons for the different qualities of relationship are often linked with the above reasons for preferring quality papers. If broadsheet journalists are more interested in the health subjects dealt with by a source organisation, they are more likely to make contact with them and allow a relationship to develop. If press officers are annoyed by sensationalised handling of their material by the tabloids, their relations with tabloid journalists might be cooled. An FPA press officer cited the way the popular press covered issues relating to sex as the reason they had better relations and closer contacts with health correspondents on the quality papers.

We've all got good relationships with the quality newspapers on science issues, but we're very coy when it comes to the tabloids.

Some press officers recognised shades of irresponsibility within the tabloid ranks and would make decisions about targeting at slightly different levels. One organisation included the *Sun* on its mailing list, but not the *National Enquirer* or *Sunday Sport*. The press officer explained this with the comment, "We do have standards!"

### 7.11.1 Tailoring information

Although it was quite common for news releases to be sent only to broadsheet or "sensible" newspapers, none of the press officers had sent *different* news releases about the same subject to the different papers. It was generally felt that journalists would be able to put an angle appropriate to their paper on a story.

I think we feel we've got one message for the world, and the journalists will put their own interpretation on it. So I wouldn't write two press releases on the same subject.

News releases thus tended to be written to accommodate all needs. However, they were differently pitched by different organisations. One press officer aimed them at "the *Mirror* end" of the newspaper spectrum, so they could be easily understood by all. Another tried to include something about the scientific basis of the subject discussed on the news release, recognising that "the heavies will tend to use [it] quite a lot, but tabloids rarely if ever".

### 7.11.2 Attempting to reach the tabloids

Several organisations explicitly sought to improve relations with tabloid journalists, and to achieve good quality coverage in the popular press. The tabloids have high circulation figures and a readership drawn predominantly from among lower social classes and less educated people, and there was a strong feeling that they should be taken seriously in an attempt to reach these people. The reasons offered for this included:

- 1) to get good preventive medicine information across.
- 2) to increase understanding of science and the scientific basis for medical treatment
- 3) to include the wider public in informed debate
- 4) because everyone should know what is being done with public money.

Some press officers saw the traditional tabloid readership as more in need of good preventive medicine information than their quality press counterparts. Thus for anti-smoking health education, the tabloid press were a preferred target "because the hard core of smokers are among the readers of the popular press". It was recognised that material about health and lifestyles was found among the tabloid pages, but that it was often criticised as sensationalised and irresponsible. A fairly typical (negative) comment about the tabloid's coverage of health and medicine, and of assumptions about the level of detail they would enter into was:

You can get the tabloids to say "Don't sunbathe" but you can't get them to talk about the ozone layer and UVA and UVB.



The need to involve the wider public in "debate" about health issues was felt by organisations from different sectors. The NCB is among those which have the promotion of public debate as one of their objectives. They feared that if they did not secure coverage of the issues they are concerned with in the popular press, they would be "excluding, in an elitist fashion, a mass of the population from the public discussion". Several of the charities were also keen not to leave out a large section of the population who give money to charities which fund research.

The blame for the poor coverage of science and research in the popular press was not entirely felt to lie with the journalists. One press officer commented: "We've lost a way of communicating". There are undoubtedly difficulties in finding common ground between the very different aims and approaches of tabloid newspapers and source organisations concerned with serious scientific health and medical matters, but some indication was given of efforts and intentions to work with popular journalists.

I suspect that if you really want that audience, you've got to talk to the journalists about what they need as pegs to write articles under... I think with the popular press it will be a matter of going out and saying "Look, we're essentially a fairly dreary organisation, tackling important issues but in a deliberately sober fashion. How on earth can we supply material that will make sense in your terms of reference?" And so long as we can conscientiously frame it, we'll follow that lead.

At least one organisation has stepped back and intentionally planned research to appeal to the tabloids. The deliberations made at the HEA about potential media coverage for a recent National Drinkwise Day are worth describing in some detail. They decided that they were doing very well at getting coverage in the quality papers, whose journalists had conveyed sensible drinking messages and explained recommended maximum units of alcohol. They believed that they could get more coverage of that kind in the broadsheets if they gave them another good solid piece of research, for instance a geographical breakdown of drinking habits. However there was some concern to get good coverage in the tabloids. The use of celebrities who gave messages of support to the campaign had worked to a certain extent, but a need was felt for some kind of explanation of a sensible drinking message, rather than just a photo-call.

"So we decided to do some research on sex..." They decided to go to women and ask them what they thought of men who drank a great deal, knowing they would get a lot of stereotypical quotes about beer bellies and slobberers, but expecting it was something the popular press would be likely to report, and hoping to use it to convey a sensible drinking message.

The HEA recognised a distinction between the kind of tabloid coverage which is funny and populist and gets a message across, and the kind which reinforces negative stereotypes in an unhelpful way and does not communicate any sane health messages. They thus decided not to go to men and ask what they thought of women who drank, because it was felt there were quite enough negative stereotypes of that around already. The efforts were deemed successful as the research got "masses and masses of coverage, almost entirely in the tabloids".

The extent to which organisations should compromise and try to produce research papers on tabloid terms is debateable, but the need to reach a wider audience than that represented by readers of quality papers is obviously a serious one.

### 7.12 Monitoring the media

The organisations studied all monitored the media to some extent but had different ways of doing this. The extent to which they monitored the media varied across three main dimensions: the range of publications and programmes searched; the subject scope of the search; and the thoroughness and regularity of search procedures. Decisions about which media to monitor, in what depth and when might take into account the anticipated level of relevant media coverage, the resources and services available (a large proportion of press officers mentioned financial or time constraints) and the expected benefits for the press office and wider organisation.

Most of the organisations studied had fairly high media profiles and monitored at least certain media on a regular basis. It is possible that media monitoring is less common among smaller organisations less likely to be the subject of media attention. Such organisations might follow the media casually, or just when issues or events of particular relevance to them are high on the agenda.

Some organisations monitored press coverage internally, with press officers scanning newspapers and clipping what was deemed relevant. Others used press cuttings services or broadcast monitoring services to do the job, while still others used a combination of the two. The decision usually took into account cost, time and quality of service as well as the perceived benefits of staff undertaking monitoring activities themselves.

Media monitoring was recognised to be time consuming, and organisations had to weigh up the costs of external cuttings services against the cost of staff time. One major consideration was the extent to which the morning newspapers informed what press



officers did for the day. If these played a key role, it was generally thought better that they were monitored internally.

Often a balance was struck, with staff monitoring national newspapers in house and cuttings services used to cover regional papers. Other arrangements were also noted. The BHFTA press officer monitored national newspapers internally and relied on health food retailers to let her know what appeared in the regional press. This saved on the costs of a cuttings service, and was also likely to bring the most relevant items to her attention since health foods were problematic of definition and a general cuttings service might find it hard to achieve the required sensitivity and specificity in identifying articles.

None of the press officers mentioned using electronic versions of newspapers for their monitoring activities, despite the increasing availability of these. Although these were not explicitly discussed, there would seem to be several reasons for press officers to prefer to continue using hard copy newspapers for media monitoring:

1. The electronic version does not provide as much information about the prominence of a news article, the size of the headline, the presence of graphics, and the context into which it is put by surrounding articles.
2. Not all newspapers are readily available in electronic form as soon as they are (traditionally) published.
3. The skills needed to search full text news databases are not simply acquired, so staff training costs could be high.
4. Fairly complex search strategies would be needed to identify all the items of interest to most organisations, and there would be a strong possibility of missing relevant items and selecting "false drops".
5. The costs (of electronic subscriptions, telephone connections, printing and staff time, in addition to initial outlays on equipment and training) would probably be higher than those for hard copy scanning and clipping procedures.
6. In some organisations with several press office staff, hard copy media monitoring was seen as quite a social activity, and the exchange of comments about the day's media offerings was regarded as valuable. Unless there was more than one machine available for electronic searching, these benefits would be lost.

Press officers varied in the range of subjects for which they monitored coverage. Some cut only articles which mentioned their organisation, or which they recognised as having had an input to, while others cut anything on the specific health topic(s) with which their organisation was concerned. Organisations with broad remits and a wide range of interests were likely to come across more media coverage of direct interest to them than single remit organisations. Umbrella or representative organisations might cut any articles mentioning members of their sector or issues which affect it.

While all press officers kept an eye on direct mentions of their own organisation, the extent to which they kept up with all of their organisation's interests depended on resources, the likely volume of relevant press cuttings, and their perceived usefulness.

Press officers described different levels of sophistication in the use made of media monitoring. At the OHE, the small staff simply read the cuttings supplied by an agency for basic current awareness and then filed them. Other press officers mentioned a variety of additional reasons for (or benefits derived from) monitoring media coverage. These could be summarised as:

- 1) Keeping press officers aware of relevant issues
- 2) Keeping other personnel aware of relevant issues
- 3) Helping press officers plan future press relations activities
- 4) Building up a reference source (press cuttings, audio and video tapes)
- 5) Convincing the organisation of the worth of the press office
- 6) Identifying problems in media coverage which require action

The relative importance of these varied between organisations, and not all were applicable in every case. What was widely recognised was that information gained while monitoring the media could affect in some ways the future activities of both the press office and the organisation as a whole. There was thus an important feedback effect by which media coverage could influence the shape of media relations and other organisational activities, which might in turn influence subsequent media coverage.

#### 7.12.1 Keeping aware of relevant issues

As discussed in 7.3.2, press officers need to be aware of the context within which their organisation operates. By monitoring the media, they can learn about developments of interest to their organisation, the activities of organisations with similar interests, the topics in the forefront of public debate, and the climate of public opinion<sup>1</sup>.

Several press offices regularly circulated either full press cuttings, headlines or summaries of press coverage to various members of their organisation. Others would contact appropriate staff if and when they came across something important. The scale and speed of circulation operations varied according to the reasons for undertaking them.

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1. Public opinion is notoriously difficult to define and determine, and this problem will not be discussed here. Suffice to say that the media are often used to gauge this problematic concept.



Some press offices had routine distribution arrangements for non-urgent cuttings and speedier routes for those which needed immediate attention.

The most obvious reason for circulating press cuttings was to keep people informed, but the importance of press cuttings in this role varied for different people in different types of organisation. The circulation of cuttings was regarded as a "key function" of the press office at the BMA where staff often needed to react quickly to events or changes in the political situation and to be in touch with public opinion. On the other hand, a press officer at one RHA questioned the value of sending a daily batch of press cuttings to local managers, and admitted the practice had never been evaluated.

While senior personnel and committee members were those most commonly included on circulation lists, a few organisations tried to keep more of their personnel aware of relevant press articles. Some press officers treated the provision of cuttings as a "return service" to staff who had co-operated with the press office and considered they had been performing a favour in doing so<sup>2</sup>. A cuttings service was thus thought to serve to nurture a general willingness to engage with the media.

Several press officers thought it worth distributing cuttings to people already familiar with the events or issues on which they were based. Staff might find it helpful to see how information had been presented to the public, and they could form opinions about the articles if asked for them. Awareness of previous press cuttings could also influence future statements to the media. The ICRF considered it useful to send cuttings to scientists for this reason:

It sometimes colours what they do. They might think "Next time I ought to make that point because it is a good one and people ought to be made aware of it".

Experts might also be more likely to spot mistakes in press cuttings than press officers less familiar with a subject. One press officer had been contacted several times by people wanting to know if anything could be done about unsatisfactory press coverage.

Awareness of events and issues as reported in the media could influence organisational work patterns and publicity efforts in fairly major ways, and press officers might try to encourage this, for example by annotating press cuttings before circulation. The FSID took press coverage into account when thinking about the kinds of information leaflet they should issue, the aspects they should emphasise and the terminology they should

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2. Several press officers observed that scientists often considered they were doing the press office a favour by collaborating with the media. The press office view was that scientists should be collaborating with the media anyway, and press officers were simply facilitating that.

use. The HEA was spurred by continued negative coverage of National Drinkwise Day, which was caricatured as another "Don't do something" day, to plan a piece of research specifically to appeal to the tabloid press and get a message across (see 7.11.2).

### 7.12.2 Planning press relations activities

Several press officers said that keeping in touch with issues in the media helped them to anticipate enquiries and prepare to deal with them effectively. For this reason, scanning the national newspapers was often the first job of the day.

We look at the newspapers every day to see what health news there is generally, to see whether we are mentioned, and to keep ourselves up to date with the issues so that we might know we're likely to be asked something during the day.

Media monitoring was also used to guide proactive press relations in various ways. In particular, press officers could identify journalists who regularly covered their subject or used their information in a favourable way, and might privilege these with more detailed, frank or even exclusive information in future. They could learn to recognise the types of stories which were more likely to be covered by particular journalists, and could take opportunities to send them any relevant information.

If we saw somebody continually writing about a particular subject and we thought that we had some work that they might be interested in that hadn't been covered, then we would give them a call.

Several organisations had effectively identified an "elite" group of journalists who frequently covered their work and made these a priority for special mailings, automatically sending them copies of new publications etc. A press officer in a newly established press office telephoned journalists who had written favourable pieces to thank them and encourage them to do more. All these practices aimed to keep journalists who wrote "good" copy producing more of the same.

Some press officers were keen to identify topics which the press in general or certain journalists in particular did not pick up. They could then concentrate on bringing attention to these cinderella areas and encouraging particular journalists to cover them.

We can tell which newspapers don't pick stories up. We do have particular difficulties with certain newspapers in certain fields... It's something we have to keep working on.

Thus media monitoring facilitates a more efficient targeting of information. It may also be used to reduce a press office's costs. The CA will add freelance journalists to their mailing lists for a trial period, but save money by deleting them if they see no evidence in the media that they have fruitfully used their information.



Some press officers try to link their judgement of the quality of articles to their knowledge of the kind of contact made with journalists and the information provided by their organisation.

If we have put out a press release, we'll gather all the cuttings about that and see how it has been used.

It's very useful for us to see the nature of the articles and the amount of coverage we're getting for a particular story. It helps us to judge activity in the future.

If they are satisfied with the coverage, they may proceed as before. If not, they may decide to try a different approach. However, not all organisations felt they made as much use as they could of press cuttings as a guide for future press relations.

We don't monitor very well here: we don't tie cuttings up with press releases.

We don't analyse it in such a way as to change what we are doing.

Press officers recognised that there are limits to the extent to which press cuttings could or should be used to evaluate press relations activities. Feature articles might not appear for several months after the press relations work had been done, making assessment something of a memory game. Even for news articles when cuttings appear soon after contact with journalists, additional information is usually needed for a balanced evaluation. For example, proactive efforts which secured no coverage could have been competing against major health stories which broke on the same day.

If we have not got much coverage, for example of a Look After Your Heart International Conference, and it was because [the Secretary of State for Health] gave a briefing on the same day about hospital waiting lists, I need to know that 90% of the coverage on health issues that day was on waiting lists so that I am not judging what other press officers here have done in a vacuum. I have to know that they were up against some real competition that day.

Conversely, the proactive efforts of several organisations might have contributed to good coverage of an issue.

### 7.12.3 Building up a reference source

Several organisations filed press cuttings for reference purposes, but the collections apparently varied in the breadth of subject, range of publications covered, time span, and quality of indexing. Some press officers suggested the cuttings were little used, but others used them to answer enquiries and to review trends in press coverage in terms of quantity, subject emphasis, frames of treatment, and images of their organisation.

The ICRF's extensive press cuttings collection with its well organised filing system was reported to be frequently used by press office and library staff, and was also open to journalists. Indeed, effort was put into developing and maintaining the collection with

the aim of encouraging journalists to turn to the organisation as a first port of call when looking for information about cancer. Collections of audio and video material were mentioned less often, but were used by some organisations as sources of examples when training personnel for radio and television interviews.

#### 7.12.4 Showing the worth of the press office

It has already been noted that umbrella organisations might circulate press cuttings about their activity to members as evidence that they had been doing a good job on their behalf. Several other press officers also said they presented cuttings or summary reports of press coverage achieved to senior personnel as partial evidence that they were doing a good job. They were reluctant to evaluate their worth by measuring press coverage, however. Press cuttings could give no indication of work done by press officers which did not result in press coverage, or which was used in articles but not acknowledged.

The frequency of being quoted does not reflect the amount that you actually talk to the papers. Quite often you are helping out with a story by putting them in touch with other people or giving them background, perhaps off the record, information.

News cuttings of the organisation and its relatively narrow interests would give no indication of the competition press officers were up against for media access. Given the arbitrary and chancy nature of trying to secure media access, using press cuttings as a basis for paying press officers by results would be extremely unfair! On the other hand, any shortcomings of press officers would remain undisclosed too, as press cuttings would rarely show up potential stories which press officers had failed to alert the media to.

#### 7.12.5 Identifying problems in media coverage

We pore through the cuttings when they come in... to make sure that we get a chance to correct any misinformation that we see in the press.

Many press officers kept an eye on press cuttings for articles they felt necessitated a response on their part. Several reasons for dissatisfaction with coverage of their organisation or subject were identified:

- 1) factual inaccuracies
- 2) unfavourable interpretations of fact (including occasions when organisations felt misrepresented because their information or comment had been used in a way that altered its sense or tone).
- 3) omission of the organisation's own viewpoint (i.e. articles considered one-sided or unduly biased)



4) information used without permission or acknowledgement (e.g. extensive quoting and use of information tables without clearing copyright permission)

The nature and extent of the dissatisfaction would typically influence their responses, as would press officers' estimates of their chances of obtaining effective remedies to the various problems. The initial responses mentioned ranged from informal, polite telephone calls to the journalist concerned to formal letters of complaint to the editor requesting published corrections. Most press officers preferred to try a fairly soft approach first, being keen to maintain good relations with journalists, but while public corrections were not usually sought unless the faults of an article were considered extreme, minor problems were not ignored. Several press officers mentioned the need to take the time to point out small factual inaccuracies because journalists' practices of referring back to their cuttings made them prone to reproduce uncorrected errors.

We try not to correct things that aren't terribly important, but you have to remember that they go into the newspaper's own file, so if it's actually wrong, you really have to tell them.

The general impression was that tactful pointing out of mistakes was favourably received by journalists who, on the whole, did not want to get things wrong.

Two press officers thought that quiet approaches to journalists could be useful when their organisation disagreed with the angle or interpretation put on a story. Their theory was that if journalists were shown an alternative way of seeing things, they might use it in subsequent articles. The more common view was that there was little chance of securing messages to counter unfavourable articles, especially if interpretations were the problem. Columnists with opinions at variance with an organisation could be an ongoing bugbear. In such cases, news organisations were thought to have all the advantages.

Obviously we might send off a letter to the newspaper, but it's entirely at their whim whether they publish it or not.

Even if corrections are made in the media, it could still be difficult to correct public opinion. The case of the Bristol Cancer Help Centre (see 5.1.1) was mentioned in this regard: despite letters in the *Lancet* and press conferences at which eminent scientists refuted the study, women remained wary and attendance at the Centre picked up only very slowly. Several press officers thought that if unsatisfactory articles had appeared in only one or two newspapers, their best plan was to concentrate on getting the desired message printed in as many others as possible.

I think all we can do is try and make sure that everywhere else the message appears that it's right. You go for overall balance and try not to worry about a particular columnist in one paper.

Before deciding to try to secure printed corrections, press officers would weigh up the pros and cons of prolonged exposure of an issue and assess the importance of getting the favoured viewpoint across. Several press officers mentioned that their organisation would never let certain types of coverage go unanswered, feeling a responsibility to challenge messages considered inappropriate. The FSID would always contest (false) claims that particular products would prevent cot deaths. The ICRF would always respond to letters denouncing the use of animals in medical research, because they could not afford to lose ground on the issue by remaining silent.

It should be clear from what has been said that it is not only coverage of an organisation's own messages and activities which may trigger complaints. Indeed the observation by Hansen & Dickinson (1990) that people were more likely to be satisfied with coverage to which they had an input than other coverage on the subject would seem to be backed up by several comments made by press officers in this study. The RCGP rarely felt a need to correct factual inaccuracies in the handling of its own information, but more commonly wrote to newspapers about issues which they felt had been covered in a biased or inaccurate way, possibly because they disagreed with the viewpoint of the "authority" cited in the article.

For instance, an organisation could say something about general practitioners' care of asthmatics which we might feel was an unfair approach, and we would write to correct that.

This section has focused on the identification of flaws in media coverage, but it should be pointed out that the press officers spoken to had rarely had problems with broadsheet newspapers. One respondent commented:

Most of the journalists we deal with on the broadsheets are very good journalists. Another seemed to confirm the view that science journalists were generally uncritical of (and certainly not hostile to) scientist sources:

Most science journalists haven't got a real axe to grind so they're generally quite positive.

### 7.13 Background and experience of press officers

The majority of the press officers spoken to had and valued journalistic experience or extensive public relations experience. Few had formal scientific or medical backgrounds (see Appendix 8), and these were generally thought far less necessary for the job than an appreciation of the needs of the media and an understanding of the ways in which journalists worked. Press officers with a journalistic background were thought more



likely to be able to provide appropriate amounts of information, to give stories an appealing angle, and to write press releases as news stories. Several press officers also mentioned that having a journalistic background helped them to overcome the "credibility problem" of public relations departments. There was possibly an increasing trend towards preferential recruitment of people with experience in journalism, as several press officers (not all of whom had such a background themselves) said that in looking for new members of the press office team, they would insist on it.

The exact mix of skills and experience regarded as ideal varied with job descriptions and the day to day tasks to be done. However, the reliance on informal information also made good contacts and good communication skills vital for effective press office work. Press officers needed to be able to liaise comfortably with people from various backgrounds. Several press officers also mentioned the usefulness of familiarity with an organisation, its interests and its personnel which came with time. Someone new to a post would not be "experienced enough to talk off the top of her head".

#### 7.14 Working with other people in the organisation

Some press officers experienced difficulties in their work because other members of the organisation did not understand the nature of the media and the subtleties of media relations. Several had felt pressure from other (often senior) members of their organisation to increase the quantity rather than the quality of information provision: to put out more press releases or hold more press conferences than they judged appropriate.

I'm not a great believer in writing press releases indiscriminately, and I'm in constant debate with my boss about that. He came in yesterday and said "We made 52 last year, let's see if we can make 60 this year...."

Occasionally under pressure I have said "OK, we'll have a press conference" because people in power in organisations like press conferences. They like to sit at top tables and things like that. But it normally ends up with me bribing my friends to come along to make up numbers.

Some press officers found some scientists reluctant to sanction simplified accounts of their work and achievement, and possibly unhappy about spending time co-operating with media relations efforts. There were also problems with people who had unrealistic expectations of the likelihood of information offered to the media being used, and being used in the best possible way:

A lot of people think that public relations is just sending out press releases: once a week a press release is sent out and they expect that release to be printed. That's their idea of press relations. It's very hard getting through people's ideas and prejudices to explain to them how the press works and the needs of the press

- and how you have to answer those needs rather than just create piles of rubbish which would get spiked.

One press officer noted that if a news article did not mention the organisation's name, it could cause "huge disgruntlement" and "attacks on the press office", which could be a source of stress:

It's often quite upsetting, really, that you've worked quite hard to get coverage and then it's your own colleagues who come dashing down to the press office saying "What a rotten article! Why didn't they mention x, y and z?".

### 7.15 Summary

The interviews with press relations officers allow the following general points to be made about media relations concerning medical research and related health issues (although the reader should be reminded of the limitations of interview data obtained from a small sample of key informants):

1. Press officers experience a fundamental tension in their roles. As employees of their organisations, they aim to communicate their employers' messages in their preferred forms via the media to their target audiences, but to do their job well, they must also satisfy the needs of journalists, with their various working norms and constraints. Meeting both these requirements can be particularly difficult when the topic of communication involves serious science, tentative conclusions or sensitive issues. The press officers interviewed viewed this as a creative challenge.

2. Organisational characteristics are important determinants of media relations activity. An organisation's reasons for seeking media access, along with its status and available resources, influence the extent and nature of its dealings with journalists. Several of the organisations studied invested much money and effort in media relations and were served by relatively large, slick media relations teams. However, the effective operation of these teams could be constrained by internal communications and by attitudes throughout the organisation towards media relations activities.

3. Good media relations operations require a sympathetic organisational culture and co-operation from staff throughout the source organisation. Some press officers had to work hard to cultivate media awareness and a willingness among the members of their organisation to talk to journalists. Some experienced resistance to their ways of approaching the media and the apparent compromises they made with messages in order to gain publicity.



4. The press officers valued (and again cultivated) close links between themselves and journalists. There was a considerable degree of convergence between the two groups, and many of the press officers had some journalistic experience. In their communications with journalists, the press officers adapted to the language and culture of journalism. For example, the news releases they issued would present their organisations' messages in a style closely resembling that of newspaper articles.

Press officers used news releases primarily to present the messages in a form recognisable and attractive to journalists, although they tended to take some care to avoid offending people within their organisation by what was written in them.

5. Several of the organisations studied had explicit intentions to educate or to increase public understanding of certain issues. However, some of their acknowledged approaches to media relations, including their selection of spokespeople and preparation of messages for inclusion on news releases or at press conferences, suggested they were hoping more for a large amount of positive press coverage for the organisation and its cause (which would increase public appreciation of their work) than for clear provision of medical information.

6. Most press relations officers were aware that in seeking media access they were in competition with other organisations with interests in their subject area. This is in keeping with the findings of Ericson et al (1989) and Schlesinger et al (1991). However, respondents in this study effectively differentiated between three types of competitor: outright antagonists; groups with similar aims but different ideologies, philosophies or approaches; and friendly rivals. An organisation's media relations activities could be influenced by the activities of their competitors. Friendly rivals and collaborators would often plan their media relations approaches in a co-ordinated fashion, so several organisations might jointly be trying to influence media coverage of a particular topic.

## 8. The view from the newsroom

This chapter reports information gathered during the interviews with journalists described in section 6.6. The primary focus is on the opinions and practices of specialist daily news journalists, but attention is drawn to those of health page editors, features writers and Sunday journalists where they were reported to differ.

### 8.1 Remits and role perceptions

The job titles and remits of the specialist news writers varied at the different newspapers, as did the numbers of journalists working on fields related to health and medicine and the divisions of subject responsibility. The journalists interviewed covered various combinations of the following areas: medical research; clinical medicine; social and environmental effects on health; political aspects of health; and health and social services. Journalists on the four quality daily newspapers studied mentioned that among the news "team" that covered science, medicine, health and health services, the dividing lines of responsibility were informal and negotiable, although regular sources were often primarily assigned to one individual.

There isn't any formal system: we just talk to one another. The dividing lines are arbitrary. It's a moveable feast. A lot depends on who's in and how much they've got on their plate.

The journalists did not have production quotas in terms of numbers of news articles but were generally expected to be aware of what was going on in their area, to judge what was newsworthy, and to deliver appropriate copy to cover "whatever the news is". One medical correspondent thought that he and his peers on rival newspapers were bigger contributors to their papers than they had been a decade ago. He attributed this to newspapers recognising an increase in public awareness of health and medicine.

The role perceptions articulated by the journalists were various and multi-faceted. They included: raising of awareness and interest; information provision; mediation between experts and lay people; interpretation of medical issues; and education.

It's a rewarding patch. You have a sense that you're helping to educate people a little - revealing the latest guidelines on diet, informing people about health or what's available to help their ill health.

The journalists' opinions about the "health education" aspect of their role varied, although in all cases it was obviously subordinated to that of writing good news or features items. Some would take the opportunities offered by particular stories to reinforce health education type messages, but others were less keen to do so.



I don't feel there's a moral imperative on *me* to put over health education, but I do think it's my job to pass on messages that have been given by people like the Health Education Authority.

"Dull but worthy" health education type stories were said to be difficult to get into the newspaper, particularly if they had been heard before.

The journalists all expressed a sense of responsibility due to the importance of the subject they were covering to many people and the potential impact of what they wrote.

Whether I'm right or not, my attitude has been "Well, medicine's a pretty serious business and you can't take too many liberties with it". The prime duty is to report it, just tell it straight. Don't go over the top, don't sensationalise, don't scare people, don't be unduly pessimistic or optimistic about anything. Just try to be very straight, because a lot of people can be very strongly influenced by what they read in terms of health in the newspapers.

They were also aware of the financial implications of their giving publicity to particular organisations, services or products, and were wary of being manipulated (see 8.3.1).

Although the readers' interest was often mentioned, none of the news journalists had a clear perception of their audience. Their perceptions were "more impressionistic than factual", and were based on market research readership profiles and minimal direct feedback from readers. They were not thought very important in shaping articles: "They are background factors really, rather than determinants of what I write". The journalists pitched their articles for intelligent lay people. Several were conscious of having medical professionals among their readership and tried to strike a balance so that what they wrote was neither ridiculously over-simplified for the doctor nor baffling for the lay person. Readers were spoken of with respect and thought to deserve a high standard of reporting.

I'm trying to be responsible to a very articulate readership that's quite capable of pulling me up if I get it wrong.

## 8.2 Source organisations and press offices

Despite some press officers' fears to the contrary, the journalists openly acknowledged their use of organisational press offices and information they provided, although a clear distinction was made between good and bad press offices:

I must admit, I don't think very well of most [press and publicity offices]. There are some honourable, wonderful exceptions: the Imperial Cancer Research Fund, the Cancer Research Campaign, and the British Heart Foundation have got absolutely marvellous, first class, extremely slick press operations... Those are the exceptions. Most of them, I'm afraid, are a waste of time.

The journalists had similar opinions about which press offices were good, and the three charities named in the above quotation were often mentioned in a positive context. The

perceived attributes of good press offices were: honesty; willingness; competence; an appreciation of journalists' needs and working constraints; and an ability to listen and provide exactly what was required on any particular occasion. Specific services which were valued included provision of expert speakers, well written press releases and comprehensive, accurate press packs. From a journalistic point of view, poor press offices were recognised thus:

A bad press office is somebody who is trying to sell you the organisation and the baggage and not listening to what you need.

They don't understand our needs; they can't believe that a particular area is not newsworthy; they send inappropriate press releases; and they give insufficient help.

Insufficient help typically meant being slow and sparing in the provision of information.

I remember talking to [a pharmaceutical company], and it took about 3 days to get one anodyne paragraph. That's a sort of nightmare press office.

Charities and patient groups were generally favourably viewed, although it was recognised that some organisations with charitable status were "absolute propagandists", and that the quality of service provided by small organisations was variable. A sense of "wanting to help" particular charities was expressed by several journalists, but there was a certain amount of professional unease about the feeling. Sympathy was expressed for charities which lacked media relations expertise and resources because they were obviously hampered in their quest for the publicity which might enhance their research capability or otherwise help their worthy cause. Several journalists commented on recent improvements in the quality of service available from the larger charity press offices.

It used to be the case in some of the medical charities that if they had a press officer at all, it was quite often a retired colonel who had just come out of the army and had a rather brusque approach to the whole business, knew nothing about newspapers or journalistic requirements, but saw it as his job to help raise funds for a good cause. It could be very frustrating trying to get the kind of help you needed... But they've got much more professional and they've got people in press offices now who may actually have some journalistic experience, or if they haven't that, have a better appreciation of what we might want.

In contrast to the generally positive attitude expressed towards charities, one journalist mentioned a "traditional" suspicion of drug companies and there was a general sense of wariness about using information provided by them. Professional public relations companies employed by pharmaceutical or other commercial organisations were also disparaged, being described as "a complete waste of time" and "very unprofessional". Large companies and those with major vested interests were particularly criticised.



### 8.3 Use of source organisations and press offices

The journalists used press offices in slightly different ways according to their individual working preferences. Different organisations would be approached for different things according to their known strengths and weaknesses.

Often, a press release would trigger a phone call to the source to ask for further information, an additional angle or an interview with a quotable expert. Journalists would sometimes also ask press officers to provide them with background information (although this would be more common for features than news articles).

I don't ask them to do research terribly much. I'm more likely to want an opinion than background material... To get on to them and say, "Can you dig out some background on such and such over the last five years?" - occasionally it happens, but not very often.

The OPCS was seen by some as a useful a source of statistical facts and figures, and its press officers were probably asked for background help more often than most because of their familiarity with what appeared to the journalists as relatively complex sources:

The OPCS people can trace information quickly that it would take me *hours* to find, so I use them quite a lot.

Several journalists said that they were most likely to use the press offices of medical research charities when they needed help in identifying experts.

The medical charities are facilitators of interviews, if you like, and quite helpful at telling you who to talk to in their particular field... they're leading you towards somebody who can talk about an aspect of medicine.

They distinguished two ways in which the charities satisfied their needs for expert comment: by arranging interviews with a designated senior spokesperson who was credible, media friendly and able to speak authoritatively over a wide general area (BHF's medical director was mentioned several times as a prime example of this); or by identifying specific experts in particular fields.

While press officers at medical research charities were frequently asked to identify suitable expert sources of comment about medical research, they were rarely asked by medical correspondents about their own organisations per se. In contrast, DH press officers might be asked to explain a government policy, but would not normally be asked to locate experts for comment.

The journalists were not averse to using information proactively supplied by press officers as sources of story ideas.

Largely what I do is my idea, but I depend on being informed by organisations such as the BMA or the royal colleges or the medical charities or the very large

number of PR organisations that there now are looking after all sorts of health "clients".

However, information was more likely to be taken seriously if it came from an organisation they trusted and was presented in an appropriate format.

I'm not going to take press releases from very militant animal rights organisations as seriously as I would from FAME or Advocates for Animals, because I know these latter actually have a certain degree of respect right the way through the community.

Familiar, trusted press offices and press officers were likely to be approached often.

If it was, let's say, a story about cancer, then the obvious organisations are those such as the Imperial Cancer Research Fund or the Cancer Research Campaign, who have got their own press offices, and we know each other, so you can easily ring them up and say, "I'm doing this..."

Several journalists said they "got on well with" press officers from certain organisations and thus were more likely to approach them with confidence to treat their approaches sympathetically.

#### 8.3.1 Avoidance of manipulation

The journalists were all wary of people trying to "sell" things through them and to them, although they distinguished between trusted organisations trying to get their voice heard and commercial companies puffing products. According to the journalists, the latter type of proactive approach could be counter-productive for organisations:

It gets our backs up and when they do have something that's genuinely of interest, we're much more suspicious of it than we would have been had they not been so pushy in the first place.

Since all information tended to come with some kind of interest attached, journalists had to cope with it rather than reject it outright. "Genuine stories that deserve to be written" would not be rejected just because an element of self interest (e.g. an author pushing himself) could be detected behind them, but journalists might take that interest into account when developing the story and deciding how to present information.

We are aware that people try to use us to get publicity. But that's fair enough as long as they've got a story to offer and we're aware of the pressures. That's how it works.

Information from some organisations would be considered more suspect than that from others, and would be more likely to be "checked" by comments from other sources:

There is a certain wariness about announcements from big companies. We don't like giving companies credits, and if we do, we're quite careful to get an independent source... If a Glaxo announced that they have some drug useful for



dealing with nausea from chemotherapy, then it would be good to talk to one of the big cancer charities to get an objective view of how big an advance it is.

(The "objectivity" of cancer charities could obviously be questioned, but the journalist's use of the word in this quotation indicates the amount of trust placed in them).

Feature writers were also wary of being manipulated by their sources. One described the dilemma of writing about a fertility clinic offering a new form of treatment:

That clinic is quite keen for its service to be accepted and I have to make a judgement: do they just want too much publicity or is it genuinely a new way of approaching [infertility problems]?

Several journalists mentioned being cautious of promoting awareness weeks for particular diseases which were sponsored by pharmaceutical companies. Although these could make articles seem particularly topical, journalists were reluctant to give what they saw as the free publicity desired by some promoters to causes they thought less than 100% bona fide and in the readers' interest. One journalist described the development of a jointly authored feature about 'flu vaccination.

There was going to be something called "'Flu awareness week" the next week, so there was a nice timely peg, an excuse for looking at it. But we were aware that 'Flu awareness week was promoted by the vaccine manufacturers, and we didn't particularly feel like giving them any free publicity... They've been slightly alarmist before, so we're a bit sceptical about them... and happily we both shared the same view that it should be rather sceptical. "Hype or hypodermic?" the headline came out.

The article (Prentice, 1991) contained some basic facts about 'flu and information about the vaccine, its availability and the people it was likely to benefit, but also "a bit that allows the reader to be sceptical". The journalist was satisfied with the article because it was informative, but also reminded the promoters that although their information had been used "there is no such thing as free publicity".

#### 8.4 Sources of story ideas

As mentioned in section 4.5 there are several different senses in which organisations and individuals can serve as sources for journalists. This section will examine journalists' opinions of the means by which sources proactively offer them potential stories and supply them with information about events and issues. Journalists' criteria for selecting stories from among medical journal articles are discussed in section 11.8.

The journalists interviewed all mentioned the wealth of information they received daily from diverse sources. Their desks were without exception piled high with books,

journals, press releases and other papers which they would sort through to identify potential news stories, and they were often telephoned by sources too.

There is really a very rich variety of sources available to journalists... One is bombarded with PR "temptations".

The impression given was that the majority of story ideas were sent in to them and that lack of potential material was not normally a problem (although the lack of time to look through information thoroughly could be).

The image of a journalist desperately seeking out stories is not a total myth, but my job is much more one of selection than of seeking out. That is to say there are 30 or 40 bits of paper in the form of letters, press releases and so on that come in each day, and my job is much more searching through those for a story rather than actually initiating it myself.

The specialist journalists were on the mailing lists of many organisations with interests in health and medicine, and routinely received news releases, invitations to press conferences, copies of reports and journal articles etc. Several correspondents thought the amount of mail they received had increased recently, and they attributed this to an increase in the number of individuals and organisations wanting and proactively seeking publicity for their research. They also noted that source organisations were increasingly using new technology to distribute information to the media: press releases were commonly sent by fax, and the DH had started to put them online.

#### 8.4.1 Individual contacts

Individual contacts, more often thought of as sources of expert comment or opinion once a journalist had decided to write about a topic, were also valued by the journalists as sources of story ideas. Telephone or face to face interviews initiated to discuss one subject would often progress onto another. As one journalist put it, "Just through contact with contacts, you get information that might be useful".

The correspondents would sometimes ask experts whom they met to let them know if they were doing anything new and interesting. They thus tended to acquire contacts who would telephone them as a priority when they had something newsworthy to report. Although they were not dependent on willing experts for sources of story ideas and could make decisions not to use stories offered to them, the specialists recognised they were vulnerable to some extent to their sources. Their judgements were often based on their trust of particular individuals and organisations and respect for their subject expertise. However, they did not consider themselves blind to stories which were just publicity seeking on the part of their promoters or which were otherwise suspicious.



You learn to spot rogues and vagabonds - though not always because some of them are very clever. You can usually smell a rat or have reason to pause about something.

Journalists with no scientific or medical training need means other than scientific evaluation to assess the quality of any research they are presented with and the potential impact of the findings. The cultivation of trusted experts as potential advisers can be useful. Journalists' assessments of sources will be discussed further both in this chapter and in chapter 11.

#### 8.4.2 News releases

News releases were thought to vary greatly in their quality and usefulness. At the top of the range were ranked those from the major charities which were so well written that in the days when journalists submitted copy on paper, they could "be sent straight through" with a change of name at the top of the page and the deletion of a few paragraphs. At the other extreme were those which conveyed information of no interest (in the journalists' opinion) to a general audience, and those which buried the potential story so near the end of a long release that it was unlikely to be reached by journalists pressed for time who had large postbags to get through.

The basic elements of a good press release were described thus by one journalist:

We don't want fantastic clever writing. What we want are the facts, put simply, and with some conception of what it is that's new or interesting about the work.

One journalist observed that some organisations might be more successful in achieving the coverage they desired if they took a little more effort with their press releases.

Many people that *want* to get information into the press don't succeed because they haven't even taken the simple steps to consider what it is about their information that is newsworthy... If people do want to use us as a platform or a vehicle to get their views across, they should become a little more aware of our needs and demands and tailor their stories rather better.

However, some would have to work harder than others if they were to be considered for use, because of the different credibility attached by both journalists and the public to information from different sources.

#### 8.4.3 Press Conferences

Press conferences were also variably rated and selectively used, but it was acknowledged that the better ones could be a good source of "complete" news stories. The gathering of a selection of experts willing to answer questions (and provide quotations) in one place at a fixed time could make for an easy and efficient way to

obtain information. However, the journalists thought some press conferences a waste of time and complained about having to travel across London to press conferences at which no "story" was presented or at which the information provided could have been simply obtained by reading a journal article and a press release in the news room. To attend press conferences they had to overcome the inertia which arose from the knowledge that other stories could be more easily written from the office, and one journalist confessed to having to "fight against" giving priority to these latter. The other negative point made about press conferences was that many just puffed products, using extravagant receptions as enticements. One journalist had invented an inverse law of press conferences: the more lavish the place it's being held at, the more useless a story will be.

Press conferences were often scenes of competitor-colleague type gatherings, and the presence of journalists from other newspapers could be helpful in several ways:

It's very helpful at press conferences to hear their questions, because you can't think of everything. Often it's the quotes that they produce that I write and vice versa.

Attendance in common with their counterparts from other newspapers could also provide reassurance and facilitate the development of an appropriate angle for a story.

We will go through the press conference and we may often at the end of it say, "Well that's not very interesting", or, "That's quite a good story". In a sense, we seek a consensus about what is the most obvious statement about it. Usually it's obvious, and it's a kind of reassurance if you like that we share a view. Sometimes we don't agree and we go our separate ways, but certainly we do discuss the issue. We don't exactly exchange notes, but we exchange thoughts a little about that.

#### 8.4.4 Press cuttings and news databases

Journalists tended to use their own cuttings to remind them of what they had written previously rather than as a source of story ideas or for general reference. They felt they could trust the information in their own cuttings because they knew they had been careful about how they gathered information in the first place. Those who kept their cuttings carefully would tend to note any corrections or complaints received and to file any relevant letters to the editor with the article concerned. They were more wary of lifting information from other journalists' cuttings, because they had little guarantee of its accuracy, even though they respected most of their competitor colleagues.

The cuttings of other journalists would serve different purposes to their own, and were probably less frequently used. Feature writers and Sunday journalists would tend to check back through recent cuttings from their own newspaper and those read by similar



audiences to ensure a topic they were about to cover had not already "been done". One journalist sometimes checked what his competitor colleagues had written about a particular subject "just to get a kind of consensus about how we have all treated that particular thing". Archival electronic files (and CD-ROM versions) of full text news articles could potentially be used in the same way as cuttings. However, the journalists interviewed apparently only occasionally availed themselves of these facilities for this purpose, preferring to use their own files or the newspaper's library or to ask a press office with an extensive, indexed collection of cuttings to conduct a search for them.

Online news databases were available to all the correspondents interviewed, but they confessed varying relatively low levels of competence and sophistication in searching them. Motivation to search news databases on a regular basis seemed quite low. As sources of story ideas, they were probably superfluous given the amount of current hard copy material available on their desks, and in organisations where news desk staff regularly tapped them, it was felt unnecessary for other journalists to comb them too.

#### 8.4.5 News wires

Several of the specialists said they kept a regular eye on the Press Association (PA) news wire, although others were less inclined to do so. Foreign news wire services tended to be left to the news desk. News wires were seen as a source of both initial story ideas and the means of developing articles. They could be a useful way of obtaining quotations if, for example, a journalist had been unable to attend a press conference which a PA correspondent had been to. However, the accuracy of news wires was not always particularly highly rated, especially on scientific stories.

Often, checking wire reports, you find that they get things wrong. Yesterday was a good example: there was a very muddled report on gene therapy... The wire report... scrambled two things and you couldn't tell what the hell was going on.

#### 8.4.6 Conferences

Medical conferences were thought to vary in their potential to provide good news stories. Decisions whether or not to attend any particular one would take this into account, along with the travel budget, the likelihood of there being a story too good to miss, knowledge of the attendance or otherwise of competitor-colleagues, and the availability of another journalist to cover "the beat" in the specialist's absence.

Conferences are extremely hard work but quite enjoyable: you're out of the office and the 'phone doesn't go. But there's always a sense that if you're not there, your colleagues are having to cover for you.

#### 8.4.7 Ideas files

Feature writers, health page editors and Sunday journalists in particular tended to keep "ideas files" of interesting information for what they saw as potential future stories. They were generally waiting for an opportunity to use the information in a topical way.

You might get ideas or think "We've not done that for a while", and start accumulating a file on it: collecting stuff and waiting perhaps until there's a time when it's in the news, or you know there's a conference coming up, or you can peg it to something.

However, one journalist confessed that many of the "possible stories" were never used:

Usually, if they're not good enough to write actually there and then, it's because they're not quite good enough to write ever.

#### 8.5 Story selection and development

The journalists claimed to have considerable autonomy in making their selections from the wide range of information available to them, although they had to work within the norms of the newspaper and with awareness of the preferences of editors. In addition, all were occasionally asked by news desk staff to write particular stories.

The factors which journalists mentioned as affecting their own story selection decisions included: their opinion of the originating source of the information; the time and effort required to access the information; established news values; personal and known editorial preferences; the special interests of the newspaper; and their sense of responsibility. Some of these factors obviously affected story development decisions too, as the example of the 'Flu awareness week article showed (see 8.3.1).

Journalists' opinions of source organisations, and the pros and cons of different channels of communication in terms of the time and effort needed to make use of them have been discussed above. The other relevant factors will be considered briefly below. It should be noted that although the journalists could provide indications of the kinds of things which would affect their decisions, they were adamant that these were not hard and fast rules they applied rigorously and without deviation. They basically thought it would be difficult to predict or put a neat framework on their selection patterns because of the pace of their decision making, the complex, multifarious factors involved, and the influence of individuality.

If you analysed an individual journalist's output, I think you'd find there are just all sorts of ways that stories arise.

For everything I say, there will be an occasion when we'll do completely the opposite, which will go against the rules simply because something is so extraordinary or so scandalous.



The latter quotation suggests there are patterns or "rules" to journalists' story selection and development decisions, although exceptions are made to these. The patterns as suggested by the journalists are considered below. The content analysis study reported in chapter 12 allowed an investigation of the patterns of selection and development of journal-based stories as evidenced by the resulting news articles.

#### 8.5.1 Established news values

Established news values had to be applied to medical stories as to any others because they were judged by editors according to the same criteria.

We don't get any special allowance for space for medical stories: they compete on equal merits with all the other stories: crime, politics, economics etc.

In accordance with these criteria, cancer and heart disease were often cited as likely to receive attention, because they affect many people. The fact that they were also often fatal was not mentioned by journalists, but was probably important because no-one said diabetes, back pain, or arthritis were particularly newsworthy because of the numbers they affected. The characteristics of medical research stories which make particular journal articles more newsworthy than others are discussed in section 11.8.

In accordance with the general principle that consensus kills stories, controversy or conflicts in medicine as elsewhere were thought to have the potential to make news. However, some professional disagreements about particular types of specialist treatment were thought too "removed from the everyday interests of newspaper readers". One journalist noted that it would be more likely to be disagreements between orthodox medical and other communities which were reported. "Conflict" between orthodox and alternative medicine was an obvious frame for a news story. In the case of smoking and health, despite the widespread consensus among medical professionals, the existence of the tobacco industry, the pro-smoking lobby and groups of smokers trying to quit ensured enough conflict for stories on the subject to continue. It should be noted that "new" consensus as arrived at by a major panel discussion, could be newsworthy.

Traditionally negative news values would also apply, and one journalist described the "yuck factor" of medical journalism.

There are grounds of good taste, and even on a serious newspaper I don't think people too often want to read about incontinence or bowel cancer - even though perhaps they should. There are ways of handling those stories so you can get them in the paper, but again you have to be aware of the yuck factor.

Another journalist suggested that there were no absolute taboo subjects, but since all stories needed enough news value and had to be deemed interesting enough to be printed, some subjects might have higher hurdles to get over than others.

Once stories had made the news, any relevant "follow ups", such as the progress made by people on whom new surgical techniques had been tried, were likely to be reported, sometimes over a lengthy period. Previous media attention could thus generate more.

The journalists tended to use their own interests as a guide to those of their readers. Several thought the ultimate test of whether something was "news" was people's reactions to it. They would judge something as news if it was likely to spark discussion, for example "on the train" or "in the pub".

### 8.5.2 Responsibility, scientific values and medical opinion

An awareness of the potential impact of news stories about health and medicine caused some journalists to adopt fairly conservative story selection patterns. One mentioned being reluctant to pick up "extreme eccentric" stories or to chase too hard after exclusives (which were unlikely to be mainstream medical research - see 7.10.4) because of their possible repercussions. Their sense of responsibility also affected the way in which articles were developed and written. The journalists claimed to be cautious in their use of language (several avoided the word "breakthrough") and tried to keep their articles in proportion.

I don't want anyone to pick up the paper and run away with the idea that "Granny can be saved after all: it says so in *The Times*". And I don't want them to run away with the idea that things aren't so bad as they might have believed, either.

Although most of the specialist journalists had no formal medical or scientific education they did claim to have acquired a feel for and basic understanding of the subjects they cover. Several of them seemed to have taken on board at least some scientific standards of evaluation, although this apparently remained subordinate to a reliance on the expertise of trusted medical scientists. This issue will be explored by a consideration of the journalists' comments about reporting on alternative medicine.

#### 8.5.2.1 Alternative medicine

There was a general recognition of public interest in alternative medicine, but also of the fact that evidence in support of it rarely satisfied the criteria of scientific evidence and that orthodox medical professionals remained largely sceptical. Some of the



journalists' comments will be quoted at length in this section to give a fuller flavour of their thoughts.

Several journalists were wary of alternative and complementary medicine (especially "the more cranky types") on the grounds that there was insufficient evidence about their effectiveness. Although they would report some alternative medicine stories, they were cautious about the credibility they attached to the different therapies in their articles.

I know there's a lot of interest in [alternative and complementary therapies], but I'm very suspicious of them because they don't seem to carry out the comparative trials of efficacy in the same way as more orthodox medicine or treatments. I know quite a lot of people are interested in homeopathy, acupuncture, osteopathy, even crystal gazing, but quite often, all you receive even at this level of national newspaper correspondent, are claims. People send a press release saying "This works". There is no evidence for it, it's entirely anecdotal. And although they might be right, until they've done serious studies which are published in serious, peer reviewed journals, I'm very suspicious of them. Obviously I've written about them - we all do, they're interesting. But the fact that one person has been helped doesn't make them entirely valid. So yes, I write about them, but I'm very suspicious of giving them credibility.

Another suggested that he and other journalists had become more likely to report alternative medicine stories since mainstream medical professionals had taken a greater interest, that they had taken their lead from their traditionally trusted mentors.

Coming in basically as a journalist with no medical qualifications, I thought it was a bit cranky, really, at the beginning, and a bit dubious, and I thought the best thing to do was to go for mainstream orthodox medicine and just report that. But increasingly I've recognised that there is more to it than that, and I think that is probably a reflection of the fact that the medical establishment sees that itself too. There is more room allowed by the medical establishment to complementary medicine than there was. There's been a grudging shift in attitudes, I think, and that means that more attention is paid to it by the press as well.

The notion of reliance on established medical opinion was reinforced by a third journalist, who was inclined to give orthodox professional associations the last word:

I personally wouldn't take a view. I would reflect what other people are saying. I've written critical stories about alternative medicine, but they're hung, they're pegged on, say, a report that the BMA put out a year or two ago in which it rubbished alternative therapies. Equally there was a press conference a few weeks ago at which the joys of alternative therapy were being pronounced. I just wrote it factually, putting what their claims were, but then recalling that the BMA had discounted that there was any effect from this therapy. I would always want to give a platform to people who were making claims, but would never leave their claims untested, would always quote the BMA or one of the Royal Colleges for their opinion on the same thing.

Although this journalist saw his approach in this case as an example of the journalistic practice of giving a statement and then an anti-statement, it seems unlikely that claims

made by the BMA or Royal Colleges would be countered in the media by comments from protagonists of alternative medicine unless they were specifically about an alternative therapy. The journalists' comments about alternative medicine strongly suggest they tend to work within an orthodox medical paradigm. At least one felt they had little choice on this matter: if they did not have recourse to the dominant ideology, how else could they assess credibility?

### 8.5.3 Editors and newspaper policies

Several journalists confessed that both their own and their editors' personal interests could influence their topic selections. If a story sparked their own interest, they would then exercise a certain amount of self censorship, taking into account the known preferences of their editors, their newspaper and their readers before proceeding.

I think there's a self censorship thing in a way, where you just instinctively as a journalist first think "That isn't going to make it", or, "It's a waste of time doing it because we're not that kind of paper", or "It's not for our readers".

A negotiation process between journalist and news editor commonly took place before an article was developed, to discuss whether the story should be written and if so to approximately what word length. Journalists mentioned sometimes starting work on a story and then discovering it was not so promising as it might have been. The reverse was obviously less likely to happen: stories which did not appear useful at first consideration would have little chance of making the paper unless the journalist chanced across them again in another more appealing form.

The particular interests and emphases of the newspaper would also affect selections. Journalists were aware that there were certain topics which their newspaper was more likely to cover than their rivals. The *Guardian*, for example, was thought to take more interest than most in psychology and psychiatry. There were also occasionally temporary strategic shifts in the newspapers' interests which could influence choices:

At the moment the paper is quite keen on promoting women's issues... so there's a bit of a tendency now that if there's a women's health issue coming up they might ask me to look at that.

The paper at the moment is going through a phase where it wants to have graphic illustrations in it, so we see possibilities, something that would look well with a graphic...

In selecting the stories to cover, the daily news journalists all felt pressure not to miss major news, and also not to miss anything which their counterparts on rival newspapers might report. Their night editors would check the early issues of rival newspapers and



question any apparently significant omissions from their own, a practice which has been criticised as encouraging homogeneity among newspapers. The pressures on Sunday newspapers were recognised to be different: there was less emphasis on comprehensive coverage of all the main stories and more on finding "a very interesting story that nobody else has yet covered - or that nobody has carried recently".

Sometimes journalists would be prompted by the news desk to look at particular stories which they had come across.

The news desk has its own sources which might tell them something has happened - there's been a heart transplant on a baby in Leeds, or whatever. I'll be told about that, asked my opinion about it, perhaps be required to write about it regardless of my opinion (but that's not terribly often)... There is a give and take with the news desk.

Typically, news desk staff were alerted to health-related events or situations by sources not available to (or not used by) the specialist correspondents and they would ask them to follow up leads in the usual way. The sources might be telephone tips, files of local reporters' copy, foreign news wires or other news outlets. If something sparked the curiosity of a news editor, s/he might ask the relevant specialist to research the story. One journalist gave an example of an editor who found two contradictory views about 'flu in his reading and asked him to establish why different views were held by different organisations. This kind of task was considered rare, however. Another journalist estimated that while a few of his stories were initiated by the news desk and involved "beaver away and looking for something", 90% were selected from given material. Editors were probably more influential in this matter on features pages than news pages.

#### 8.5.4 Competitor colleagues

As mentioned in 8.4.3, several of the journalists suggested that they did operate as competitor-colleagues, as described by Tunstall (1971). At a first glance, the journalists appeared to differ in the emphasis they put on competition and collaboration:

There's not a lot of co-operation. It's more competitive than co-operative, although I wouldn't overstress it.

I regard them as friends more than rivals.

However, a closer consideration of their comments revealed that the competition was basically between different newspapers, which wanted to have all the stories their rivals had and something extra too, rather than between individuals. The individual journalists were unanimous that there was no personal antagonism, that they got on well, and that in situations such as press conferences where they were basically all on an equal footing,

there was a certain amount of co-operation (or at least a lack of hostility and of sly attempts to corner a particular speaker for themselves).

The fact that night editors would scan the other newspapers and possibly highlight any major shortfalls in their own specialists' performance relative to the others served to keep journalists on their toes:

There's a temptation if you're busy not to write a story - or if you've got three stories and put them in priority order then there's a temptation not to write the third one. But then you think, "Well I bet if I don't do that there'll be something in the [other papers] tomorrow", so you do write it.

[The night news desk] look at the papers each night and if they see a good medical story that we haven't got, they'll certainly ring me. So there's that little competitive edge always, that spike in your backside that's ready for you to sit down on if you relax.

Some journalists spoke of a greater degree of co-operation than others, although they tended to discuss appropriate angles on major stories rather than whether to cover things at all. However, as Tunstall observed previously, they did not think their collaboration would meet with the approval of their editors.

There is a degree of unspoken co-operation which perhaps our editors aren't aware of and which we certainly won't enlighten them about. But we're all doing the same job, we all face the same pressures, and I respect their judgements.

Although they tended to be aware of what each other wrote, and knew they could not afford to omit major stories, the journalists retained a strong sense of individuality and admitted they often differed in story selection and treatment, particularly on relatively minor stories.

## 8.6 Information for story development

Once having selected a story idea, journalists have to consider how they will treat it.

You tend to say to yourself: "What is this story? What does it need? How much of it is already here? What's missing and how can I get it?"

They would often try to supply background information to put a story into context.

If one was writing about breast cancer, for example, whatever the story of the day was, then you would obviously look to include how many people suffer from it and die from it, the fact that there's a screening programme going on, that it applies to these women of these ages and so on.

Occasionally, this kind of information would be provided on a (good) press release. If it was not supplied with the story, some of the information might come from the journalist's own existing knowledge, although several of them mentioned that because



they covered a vast range of topics in a very short space of time, they had problems remembering facts they had previously acquired.

I'm disadvantaged by the fact that I have very poor retention. I forget almost immediately about what I've just learned about. It's a common symptom in journalism, especially in daily papers. You're dealing today with contact lenses and tomorrow with cot deaths or tuberculosis, so you have this rapid assimilation of what it's all about, you write it, it gets printed, and it's defunct. You immediately move on to something else.

The journalists' own cuttings could thus serve as useful aide-memoires. Most journalists also had a collection of reference sources to hand, including files they had built up themselves out of interest. Several mentioned enjoying finding things out and deriving some satisfaction from being able to include "a bit of research" in their articles, although time and space constraints obviously limited the extent to which they could do this in news stories. Personal sources were also used for background information: journalists might pick up the telephone to a known individual contact or relevant organisation for the facts they needed. Some newspapers retained a medical consultant, a qualified doctor, who could be consulted as required.

The journalists felt a keen need to have the say so of authorised knowers in their articles. A quotation from an expert could be crucial to save a story from the spike.

It may just be that it needs Professor so and so to say "Yesterday,... quote something". That might be just enough to make the thing viable.

Expert viewpoints were not only used to lend credibility, but also (especially in the form of quotable quotations) to make a story more readable and comprehensible.

It's a technique of writing which breaks the story up a bit, if you can attribute something to a source article, include some little bit of background information, then attribute some to a direct quote.

#### 8.6.1 Identifying Viewpoints to Report

Often when writing a story, journalists thought it obvious which viewpoints they should try to report and what kinds of people could serve as authorised knowers. Typically, they would want to talk with someone closely involved with a particular piece of work or a major announcement. When reporting disputes or controversies, they would need opposing viewpoints and possibly comments from sources recognised as able to independently evaluate them. For certain types of story, the journalists regarded particular viewpoints as almost mandatory. Organisations whose products, services or practices had been criticised would always be asked to comment. Thus the nuclear industry would be contacted if leukaemia clusters were identified around a nuclear power

plant, and a pharmaceutical company if adverse reactions were observed in connection with one of its drugs. Similarly, sceptics would usually be sought to question claims made about the efficacy of new products or services. The use made of authors and other experts when reporting on research published in journal articles is discussed in sections 11.9.1 and 11.9.2.

The number and type of viewpoints sought would generally be limited by the time available to develop and write the article, and by the acceptable word length of the finished product. Sunday journalists and features writers were thought more likely to be able to consult and possibly include comment from several sources. Although the news journalists recognised the problems of bias associated with getting only one view of something, they often had to make compromises.

It's not a perfect world, and there is only so much time. If you've already got one expert who's said enough to satisfy what you're doing, there's a temptation just to call it quits, write it and get it out of the way.

In accordance with accepted understandings of news values, the journalists mentioned titles and qualifications, status and position, organisational affiliation, notable visible achievement and previous media exposure as common practical guides to authority. In general, the higher a person's title or position, the more likely they were to be called upon to provide expert comment. Professors and consultants were usually regarded as more desirable sources than "ordinary" doctors, and the journalists tended to try to "go to the top" for quotations.

It's a standard rule: if you want to know anything, go to the man at the top, not to the sidekick - but sometimes the man at the top won't speak to you and the sidekick will.

Journalists' preferences for particular organisational sources have been discussed above (see 8.2). The lack of well respected, high profile organisations concerned with alternative and complementary medicine could be a further reason why journalists had problems in attaching credibility to these:

I'm incredibly wary of the lunatic fringe, and if I don't know where people are coming from, I can't put any authority on what they say.

The authority of a major organisation would usually be transferred to its representatives, so spokespeople for professional associations, government departments and research institutions could derive credibility from their affiliations. Researchers would also be more likely to be trusted if they were attached to organisations respected by journalists.

If they're working in a teaching hospital, you tend to believe what they say, you tend to assume they're not charlatans... It's quite important that you know



yourself where somebody comes from, otherwise you could put just any old rubbish down as credible.

The journalists admitted it could be hard to assess the credibility of lesser known organisations:

You do have to be a bit suspicious, especially of new charities. People can get very wrapped up in believing their viewpoint is the only correct one.

The techniques they used to evaluate unfamiliar organisations included checking the facts on their press releases, asking known experts for their opinions, and (in the fashion of a circular argument!) assessing the organisation by the spokespeople it put forward.

The more sensible [charities] put up genuine doctors whose track records you can fairly easily check. If a household name like Magdi Yacoub starts talking about heart disease, you're rather more inclined to listen to him than somebody you've never heard of, and of course the charities know this.

British sources were generally seen as more trustworthy, or more of a "known quantity" than foreign ones, and British experts would apparently be consulted by the journalists if they had any doubt about the credentials of a foreign researcher.

Last week, there was an article saying you could use Botulinum toxin for stammering. It was published in America, and when I spoke to someone in England who's thinking of doing the same thing, at the National Hospital for Nervous Diseases, I said "What do you know about this chap in America?" and he said "Oh, he's been at the forefront of research in the area for some time: he's not a crank". So you just have to ask other people.

Of course, someone "thinking of doing the same thing" is unlikely to do anything other than trust the work of the pioneer, so strictly speaking the British expert consulted in this case was not an "objective" adjudicator, but this again illustrates some of the problems that journalists face: experts are rarely neutral, and expertise may be split into factions.

#### 8.6.2 Giving both sides to a story

Several correspondents discussed the "basic rule" of journalism of giving two sides to a story (see 3.7.2). They considered it standard practice, but revealed subtle differences in the way they interpreted and applied it and did not feel constrained to attach equal weight to opposing viewpoints. Several journalists said they tried to guide their readers in assessing the credibility of ideas and arguments. Various means were used to identify the preferred viewpoint or understanding, including choice of words, allocation of space and priority in story order. A token mention in the last paragraph could clearly indicate that a journalist had little time or sympathy for a particular opinion.

One correspondent used an analogy derived from the courts to describe news stories, which he said could often be broken down into the case for the prosecution, the case for

the defence, and the judge's summing up. Once the differing viewpoints of two sides had been presented, the role of judge could be played by either the journalist or an expert judged competent to arbitrate independently between them (although some newspapers were thought more reluctant than others to have their journalists' own opinions appear in news articles). Judges needed to be recognised as able to take a detached and balanced view of a situation or issue. For example, the King's Fund Institute, an independent centre for health policy research, might be given the role of judge when the Conservative Government and Labour Party dispute the extent to which various National Health Service Reforms have been successful.

Although the correspondents generally considered it bad practice to give just one side of a story, two exceptions were identified: stories which stood alone and did not need a reaction, and stories for which reactions were un-reportably predictable. Peer-reviewed journal articles reporting non-controversial research might fall into the former category (see 11.9). As an example of the latter, one journalist noted that he saw no point in ringing up SPUC or LIFE<sup>1</sup> every time abortion statistics were published because both he and his readers knew exactly what they would say. Apparently, journalists' perceptions of the degree of consensus on issues affected their judgements of the need to consult extra sources. Their sympathy with particular issues and particular kinds of organisations could also have an impact, as suggested by the comments made about alternative medicine reported in section 8.5.2.1.

### 8.6.3 Identifying and Selecting Experts

Knowing whom to contact is the secret of a lot of journalism. It's not what you know, it's who you know, who can tell you what you need to know.

In many cases, individual experts with appropriate viewpoints are identified for journalists along with a story. News releases may provide names and quotations, while press conferences usually offer one or more captive experts ready to provide comment. If reporting on a particular piece of work, the decision to approach a member of the team may be obvious. For some stories, journalists might recall appropriate individuals from the ranks of their contact books. They tend to keep a record of people (sometimes annotated with comments about their particular interests, qualities or communication skills) whom they have met or spoken with and whom they think might prove useful

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1. The Society for the Protection of the Unborn Child (SPUC) and LIFE are two anti-abortion groups.



contacts for the future. One journalist recalled how a certain psychologist became "the" media expert on hostages:

He once gave a speech at some psychology meeting about hostages, and all the hacks thought, "He'd be a good bloke to keep". Consequently he's never been left alone since.

Being in the right place at the right time can thus be an important factor influencing the likelihood of someone becoming a media expert.

The journalists interviewed were generally well established in their fields. Their contact books were full of individual names and they had plenty of relevant directories. They were confident they knew the stances which individuals and organisations who had served previously as sources or subjects would tend to adopt on particular issues and aware of their power to select experts who shared their own opinions.

In one sort of sense, you set the agenda yourself, because if you want to write a slanted story, then it's not very difficult. You've got a pretty fair idea, when you've been covering a subject for a bit, who says roughly what, what sort of line people will take... You tend to know who to go to by what you expect them to say.

As has been mentioned, even established specialists would use the press offices of respected medical research charities to help them identify appropriate experts, particularly when time constraints were pressing. Several professional associations were also known to maintain lists of experts, although these were apparently less heavily used.

Once in a journalist's contact book, experts might be called upon repeatedly for information and comment, especially if they had been co-operative and "nice on the phone", although journalists tended not to go via press officers on subsequent occasions because of time constraints ("the job doesn't allow you to be as courteous as that"). The likelihood that once "found" experts would be approached by other media representatives could also be increased by the journalistic practice of using cuttings files for information. The journalists recognised that repeated use of certain "convenient" experts might limit the number of viewpoints given media exposure, but did not regard this as a major problem. They pointed out that their pool of contacts was quite large, that people moved on in terms of careers and interests, and that topics moved in and out of news popularity. However, sympathy was expressed for heavily used experts, despite the publicity they might gain for themselves and their organisations, because they were likely to be contacted by many journalists, often out of office hours<sup>2</sup>.

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2. Correspondents liked to keep home as well as office telephone numbers because they could not guarantee to be writing their stories while other people were at work.

The journalists generally found their expert sources willing and co-operative, although access to senior doctors and scientists was sometimes made difficult by obstructive secretaries and hectic schedules. The fact that they wrote for quality papers was seen by several as a positive advantage in securing interviews:

[This paper] is regarded by the medical profession as respectable enough and trustworthy enough that if we call them they know it's not going to be some ridiculous, trivial, sensational thing.

Several journalists also noted that scientists and doctors appeared to have become more willing to co-operate with the media over recent years, and more aware of the need to communicate with the public, although of course there were still exceptions.

I think they have got better at it. I've been doing this for about 8 years and I see a definite trend. Where there was a stiffness, a cautiousness, a conservatism, a reluctance to comment on things to the press in general in the profession, I've seen that steadily evaporate.

One journalist suggested that researchers were also becoming less critical of the way their work was presented (by responsible reporters at least).

It seems now that the message has finally got through to scientists that the media has got a specific role to play to communicate with people who know nothing about their field, that we've got to take these "awful" steps to condense their knowledge.

These improvements were partly attributed to the fact that, particularly in times of economic difficulty, those involved in medical research had come to see the benefits of improving communications with the public, and that their professional organisations had started offering media training and encouraging appropriate co-operation with journalists. Professional rivalry (and less professional back-biting and bitching) among researchers could be problematic for journalists, but in the sense that they could create difficulties in evaluating comments rather than difficulties in obtaining them in the first place.

General reporters and journalists new to a specialist beat would tend not to have such an extensive range of personal contacts as established specialists. They would typically identify appropriate individuals by consulting past press cuttings (or their electronic equivalent) on the subject to see whom other media representatives had interviewed or by looking at directories (which would be more likely to point them to senior and well established people). They would also be likely to make heavier use of organisations concerned with the particular issue they are reporting, such as specialist professional organisations or charities devoted to a medical condition, particularly once they became aware that these were able to recommend experts and facilitate contacts.



#### 8.6.4 Case histories

The use of personal stories about health issues was noted by several of the news journalists to be more common in tabloid than quality newspapers, although they wondered whether more case studies could fruitfully be used in their own newspapers and one commented that "Increasingly the phrase is "Tell it through people"". One approach adopted on quality papers was to run a relevant story on an individual alongside a more general news article.

Case studies were more frequently employed in feature articles and they were commonly used on health pages. However, while one health page editor saw them as a "must", another described them as a formula which she was wondering whether she ought to fight against. In feature articles, meant to be read at a more leisurely pace than news, case studies were often regarded as a good way to introduce more complex ideas in a way which was comprehensible to a lay reader without being patronising.

Journalists would tend to ask charities, interest groups or support groups to help them identify suitable patients willing to talk to the media. Occasionally, the help of doctors would be enlisted, but the journalists were aware of the ethical difficulties of this approach. While news writers would rarely contact potential case studies without the help of an intermediary, health page editors would often be approached by people wanting to write features about a particular disease or problem, who effectively volunteered themselves as case studies. It was not uncommon for a source organisation to be "dropped" from a story if they could not find an individual subject as required, such was the strength of the felt need for individual stories sometimes.

The journalists and newspapers normally preferred to give individuals' real names in articles: "Somehow having their actual names brings the subject alive more". Given that they would only interview people who gave willing consent, this was felt justified. However, if a subject was so sensitive that a potential subject was only willing to speak anonymously, anonymity would often be preserved, particularly if publicity was likely to have unfavourable repercussions for the individual concerned.

#### 8.6.5 Acknowledgements and attributions

Most of the journalists said they would try to acknowledge organisations which had helped them with their articles. On a simple moral level, or "out of politeness", they would try to credit an organisation which had supplied useful information. On a journalistic level, attributions could be sources of authority or "bona fides" for an article.

Again, though, journalists would be more likely to give favourable publicity to organisations they thought deserved it:

For charities, who do go out of their way to help us, I think it's only fair to give them a plug so their readers know they're out there, alive and doing good work.

### 8.7 Journalists' aims in writing news articles

Apart from aiming to write about what was most newsworthy, the journalists generally strove for accuracy in their stories, and for an appropriate "pitch" for their readers. Both of these had their problems. Accuracy was thought difficult to achieve because of journalists' lack of time and their dependence on sources:

The challenge is to write stories every day and to get everything in them completely right. That's quite a task!

Something that people fail to realise about journalists and their accuracy is that we are dependent upon other people for information. How accurate is their information? We have to take on trust, to some extent, what someone is telling us... So mistakes can appear in newspapers not because the journalist has been sloppy or inaccurate, but because the source hasn't been absolutely correct to begin with.

There was a certain indignance on behalf of the diligent journalist who "got things wrong" by being misinformed, and to a large extent the journalists considered the onus for "accuracy" in science news stories lay with the scientist sources.

Journalists can't be expected to check scientists' statistics: that's not their job... The demand that journalists do more research on their stories can't always be met.

Several journalists revealed that they took some trouble to report what they were told correctly. One temporarily recorded all telephone calls, both to allow complex arguments to be listened to over again, and to ensure that quotations were accurately noted.

The journalists differed in their views and practices on checking copy back to sources to improve accuracy. Although it was "not usually done" in textbook journalism, several of those interviewed did try to check facts (and possibly interpretations) back with sources over the telephone if time allowed. The arguments cited in favour of copy checking, particularly for complicated or technical stories, were that it could give the journalist the security of knowing that an expert had considered an article factually correct, and that the source, who had co-operated in the production of the article and whose reputation was to some extent at stake, could be reassured about the contents. One journalist saw copy checking as a good public relations exercise for journalism, which might help convince sources that journalists were not all out to twist their words.



Another found copy checking "quite refreshing" because of the rarity of complaints received from sources when it was done. The main arguments against copy checking were lack of time and the possibility that the source would start quibbling about how they had chosen to slant an article. Journalists were more likely to ask people to check copy if they knew they would challenge only the factual content and not the style of an article. Again, several charity press offices were mentioned as useful in this regard.

Finding an appropriate pitch for articles could be difficult. Several journalists said that they tried to write articles which would be intelligible to an educated lay audience without being patronising and which would also appear satisfactory to the doctors and scientists among their readers.

### 8.8 Journalists' experience of editing

The journalists generally felt that their articles were not heavily edited, particularly in comparison to what they would expect on tabloid newspapers where information was thought to be "mangled" and "invented". However, they could not guarantee that everything they wrote would get into the paper at all, let alone at its original length and in its original form. Several said they could minimise the amount of editing necessary by adhering to agreed stories and word lengths. If editing was necessary, they could minimise potential damage by writing the article carefully in the first place.

If you're good at what you do, you're making the sub-editor's job easier by writing it in such a way that he can easily knock out bits. And if he's a good sub, he can protect you by taking out bits that still allow the thing a reasonable degree of its originality.

Good sub-editors were thought capable of shortening copy by taking out what would least change the sense and "fairness" of a story. Some would check with the journalists concerned whether their editing had preserved the essential information.

They're actually very good about shaving things out, and they're very meticulous about it as well: they ask if they think the sense is wrong.

Although "insensitive" editing was thought rare, several journalists mentioned that sub-editors would sometimes be tempted to take out of their articles the bits that weakened rather than strengthened the story, for example, cutting a sentence which explained a low absolute risk, but leaving in details of a high relative risk, although on the whole, sub-editing was not seen as a node of major information change. Several journalists mentioned feeling frustrated when hard-earned quotations were cut or subtle nuances lost in the contraction process. They could also be disappointed at the prominence (or lack thereof) assigned to particular articles by editorial decisions.

## 8.9 Constraints of medical reporting

The various constraints to medical reporting noted by the different journalists will be briefly summarised here. Some of the difficulties particularly associated with reporting medical research are discussed in section 11.16.

Specialist medical correspondents share with other journalists the time and space constraints associated with daily news journalism. Stories have to be written quickly, which means there is not time to consult elusive sources (or several sources) or to check things particularly thoroughly. Stories also have to be written in such a way that they can compete with others in terms of news values. This was thought problematic for a responsible medical journalist who had picked up some of the subtleties and caveats of medicine and was thus reluctant to "strengthen" medical stories to increase their chances of "success" in terms of getting beyond the editor's spike.

The particular problems identified on the medical beat were: the vast scope of the subject; the complex specialist knowledge and jargon involved; the lack of consensus among experts in certain areas; the shifts in medical knowledge; and the human importance of health and medicine.

Medical journalists "specialise" in a very broad area, and find it impossible to keep up with and understand all the relevant developments on their beat. Technical and statistical information could be difficult to understand, and reporting medical stories in plain language could be difficult. Although the journalists interviewed were not medically trained, most had spent quite a long time working on the beat and had acquired a familiarity with technical words which their readers could not be assumed to share. They thus had to make a conscious effort to free their stories from jargon.

A major lack of consensus could cause problems for journalists reporting on controversial topics because it was not clear to them which "expert" view was correct, and whatever they wrote was likely to be criticised.

Anything to do with ME or post viral syndrome is a nightmare, because there are at least 2 or 3 charities now which all have conflicting views on what causes it; whether it's a physical disease or a psychological disease or a combination of both; and how it should be treated. You can't write anything without the other two ringing you up and saying you've got it wrong!

The potential of medical stories to raise hope or create anxieties generated a heavy sense of responsibility which often clashed with pressures to produce strong news stories. The fact that editors did not have the same understanding of scientific values and the need for caution and responsibility sometimes could make it difficult for journalists to



get stories into print in a form with which they were happy. The problem of timing was also acutely felt:

[Scientific medical progress] emerges little by little. Very early on, you might be raising false hopes. Later on, everyone says "This is old news". So you're slightly caught.

### 8.10 Health pages

Health pages can only be briefly discussed here. Although many of the information flows affecting them are similar to those for news pages, there are some distinct differences. The precise aims of health pages obviously vary from newspaper to newspaper, and from editor to editor.

One editor saw the health page's role as one of creating and maintaining interest.

The health page is not an information page, which some people seem to think... Sometimes press officers or journalists write something which amounts to an information sheet. You can imagine it: this disease; so many people suffer from it; causes; effects; treatments - it just becomes extremely boring. There are people, I think, who believe that it's part of the newspaper's job to provide information, and it is to an extent, but only up to a point because we've got to keep the readers reading.

Another saw it perhaps more as an in-depth "news" page:

Very broadly, I think that any feature that goes on the page really has got to push out the boundaries. It's got to be telling us something new... The rule will always be broken when we get first person pieces in, very often from readers, which are just stunningly good.

One major difference on the quality papers between information flows for news and for health page articles is the more frequent use of freelance journalists for the latter. The health page editors are rarely short of potential contributors, although the quality or suitability of some of the material they were offered was the subject of some lament. The three health page editors interviewed all to some extent preferred to commission articles from freelance journalists known to them and whom they could trust to produce a piece which did not require much editing, although one was also keen to give new writers a chance. The amount of input they would give in terms of advice about possible sources and suggestions or prescriptions about article development varied according to personal preference, the origin and specificity of the story idea, and the estimated experience or competence of the journalist.

Decisions about what to include, when and at what length were often based on "pegs" which could provide topicality, such as awareness weeks or conferences, although one editor was keen to avoid seeing these as necessary:

My view is that if it's good enough to go in the paper, it's good enough to stand on its own right and it doesn't need a week or a book publication to support it.

Topicality on features pages was apparently increased on some newspapers by close liaison between news journalists and health page editors or features writers (a few individuals wrote for both news and health pages). In these newspapers, the specialists' desks were in close proximity regardless of the kind of article they wrote, and a fair amount of informal discussion and information exchange was reported between them. This constitutes yet another interaction which can affect the flows of information about health and medicine and the final shape and flavour of newspaper content.

### 8.11 Summary

Some of the main features and trends of medical reporting in the UK quality press as identified from the interviews with journalists will be summarised here. As with all reports of behaviour provided by the subjects of study themselves, the journalists' comments must be interpreted with a certain amount of caution. It should also be noted that journalists' attitudes and practices may shift over time (as they themselves acknowledged, for example, when discussing alternative medicine), so the points below will not necessarily hold true for different contexts.

1. The news journalists rarely needed to search out "stories" for themselves. In selecting and developing stories from the information they were given, they took into account the source of the information, ease of access to any information needed to develop the story, established news values (possibly tempered by a sense of medical responsibility), and their own, their editors' and their newspaper's preferences.
2. The journalists professed a strong sense of responsibility when reporting medical stories. They were reluctant to report "sensational" stories from medical "cranks" for fear of raising false hopes and anxieties, and they were aware of the sometimes profound tension created by bringing the cautious statements of medical research into the competition of the news room in which the "strongest" stories win.
3. None of the journalists interviewed were medically trained, and they realised they lacked the expertise to assess the quality of medical research themselves. They appeared to rely on being able to identify trustworthy sources of information which/whom they would take great care to report accurately. They might ask well established, trusted sources (individuals or organisations) to comment on the credibility of sources they had not used before.



4. The journalists were keen not to "get things wrong" in their reporting, by which they seemed to mean not only that they wanted to pass on the information they had been given accurately, but that they were reluctant to make statements which went against "the weight of medical opinion". They made orthodox medical opinion the judge of what was correct, and although the subject scope of its jurisdiction was not fully investigated, it certainly covered alternative therapies.

5. Journalists' opinions of different source organisations were quite influential in their story selection and development decisions, affecting the sympathy with which they received proactively offered information, the likelihood of them approaching an organisation for comment, and the manner in which they would treat information obtained from an organisation if they were to use it in an article.

The journalists interviewed were very sympathetic towards certain major medical research charities and were appreciative of the efforts which their press offices made on their behalf. They made heavy use of these press offices, particularly as sources of expert interviews and comment. One journalist revealed a naive assumption that these charities were objective sources of information. However, there was some recognition that their sympathies for certain charitable sources were at odds with ideals of journalistic impartiality.

6. Journalists valued information which was conveniently packaged and presented to them. They were unwilling to travel far or spend too much time at press conferences, and were reluctant (or unable) to wade through a lot of written waffle to find a buried story. The journalists were willing to admit using material supplied by press offices, although they claimed that relatively few press offices were able to provide information which they found both credible and useful. They expected information to be well tailored to their needs.

7. The journalists' opinions as to what constituted a good press office closely matched those of the press officers working for the organisations whose press offices the journalists openly appreciated. In particular, the journalists thought that the best press officers had enough journalistic experience to understand their needs and were able to supply the information they required in formats useful to them in time to allow them to meet deadlines.

## 9 Journals' dealings with journalists

This chapter briefly reports the results of the preliminary questionnaire survey of journals described in section 6.3. 40 completed postal questionnaires were returned from 48 sent, giving a useable response rate of 83%. One of the journals approached had been discontinued, and the editor of another felt the questions asked were inappropriate to a journal "solely concerned with the publication of original research" which had "no dealings with journalists and the press". Questionnaires for 5 additional journals were completed during interviews with representatives of source organisations who had responsibility for media relations activities connected with the journals. The 45 journals included in the study are listed in Appendix 1.

### 9.1 Distribution of journals

Respondents indicated on a check list which of several statements best described the distribution of the journal to newspaper journalists. The results are shown in table 9.1.

Table 9.1 Journal distribution arrangements

| Distribution   | No.             |
|--|-----------------|
| Every issue is sent free to all national newspapers                      | 12 <sup>1</sup> |
| Every issue is sent free to quality national newspapers                  | 9 <sup>2</sup>  |
| Every issue is sent free to journalists who request it                   | 6               |
| Selected issues are sent free to all national newspapers                 | 0               |
| Selected issues are sent free to all quality national newspapers         | 3               |
| Specific issues are sent free to journalists on request                  | 6               |
| Journalists only receive the journal by normal subscription arrangements | 8               |
| Other  | 1 <sup>3</sup>  |

1. Several respondents checked this category but either noted one or two national newspapers not included on the distribution list or substituted "most" for "all".
2. Of these 9, 2 were also regularly sent to other journalists who requested them, and selected issues of 1 were sent to all journalists. Several respondents added that specific issues would also be sent to journalists who requested them, which is probably true of most of these journals although it is not the main method of distribution.
3. One respondent did not check any of the offered categories, but noted that press releases of clinical articles of particular interest would be sent to national newspapers.



It should be noted that the statements offered were not entirely mutually exclusive. As the footnotes to the table show, several respondents checked two statements to indicate, for example, that the journal was routinely sent to appropriate journalists on quality national newspapers, but that specific issues would also be sent free to other journalists on request. The list only covered distribution arrangements for the whole journal, because arrangements to alert journalists to particular articles were investigated in a subsequent question. Two respondents commented that only summaries of articles were routinely sent to journalists, and full copies were available on request. (Their responses were counted in the "specific issues are sent free to journalists on request" category).

The reported distribution arrangements show a preferential targeting of quality as opposed to popular newspapers by 12 (26.7%) journals. In addition, journals which are usually distributed to all national newspapers may be restricted to quality papers when non-sensationalised reporting is considered particularly important (see also 10.1).

10 (22.2%) of the journals were sent to journalists in advance of the general mailing and under embargo. 3 (6.7%) of the journals were sent in advance but were not embargoed, and embargoes were placed on the publication of newspaper articles based on information from 9 (20.0%) journals which were not sent to journalists in advance of the general mailing. The *New England Journal of Medicine* required journalists to sign an embargo form forbidding release of information until 6pm each Wednesday, even though they received copies by normal subscription arrangements only.

## 9.2 Alerting journalists to particular articles

30 (66.7%) journal representatives said they alerted journalists to articles they thought newsworthy. Reasons for doing this were not explored on the questionnaire (see 10.3 for comments from interviews), but one respondent volunteered the information that the journal did not alert journalists to particular articles because they were reluctant to generate enquiries that the small staff could not cope with.

The most common<sup>4</sup> means used to alert journalists to particular articles in the six months prior to completing the questionnaire was a postal news release, sent by 24 of those questioned. Other approaches used were: telephone calls to several journalists (15 respondents); news releases sent by fax (15); telephone calls offering exclusive advance

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4. "Most common" here is defined in terms of number of journal organisations using the approach at least once. Respondents were not asked how many times they used each method, so total frequencies could not be compared.

or more detailed information (12); press conferences (5); and news agency wire services (5). 20 journals had used more than one method.

16 respondents who used news releases to alert journalists to articles thought particularly newsworthy automatically supplied the full text of articles with the news release, and several others noted that they would supply the full text on request. Journalists' opinions of the importance of consulting the full text of an article are discussed in 11.2 and 11.9.

14 journal representatives were aware that authors had sought media publicity for their own articles in the preceding 6 months. In retrospect, this question would have been better phrased to include (and allow a distinction between) authors, research institutions and research funders. However, the questionnaires were completed by editors or people responsible for the journal's media relations and would be limited in the extent to which they could investigate other routes by which journalists were alerted to journal articles by the respondents' awareness of these.

It should be noted that although the questionnaire focused on national newspapers, these are not the only media outlets to be alerted to particular articles. Some journal organisations were quite specific in their targeting. While completing a questionnaire for the *Drug & Therapeutics Bulletin*, a press officer mentioned an article about reducing the temperatures of feverish children by sponging them. Although this had not been considered a likely national news story, journalists writing for parenting magazines had been alerted to it.

### 9.2.1 Decisions to alert journalists

The decision about which articles to alert journalists to was influenced by the editor in 14 journal publishing organisations, and by deputy, assistant or sub-editors in 10. The person in charge of public affairs or press relations was reportedly involved in 5 organisations, and other press relations officers in 8. One marketing manager and one promotions consultant were involved. Several respondents noted more than one job title in their answers, presumably indicating either that several people could make the decisions or that decisions were collaborative.

The different categories of people involved might be privy to information at different stages and in different forms, and thus might make decisions on different grounds. One press officer completing the questionnaire during an interview described two possible routes to decisions:



It can be either the case that X will know about a particular issue that's coming up before I do and will say "This sounds really good" or "I remember that from the draft", or I will get the proof pages and say "I think we should do this, this and this"... and we'll discuss it from there.

Editors usually summarised articles for the press at 8 journals, and more junior editors did so at 10. Heads of public/press relations undertook the task in 4 cases, and more junior press relations officers did so in 8.

It became clearer as the questionnaires were analysed (some respondents included notes to this effect) that the locus of responsibility for the media relations of different journals lay in different places. In some cases, the editor or other journal staff were responsible, while in others, press officers of either the wider organisation producing the journal or of professional associations closely linked with it took charge.

### 9.3 Enquiries from journalists

Journalists may direct enquiries about journal articles to authors, funding organisations, individuals or organisations regarded as experts in the field, or to the journal itself. 43 respondents estimated the number of enquiries per issue received by the journal from journalists writing for national newspapers. 14 said they received none, 15 estimated 1-2, and 14 said they received 3 or more. 26 out of 33 respondents who were asked whether they would put enquiring journalists in contact with authors answered affirmatively, and one added that journal staff would put them in contact with other experts or specialists for further information. "Authors" would be researchers for most journal articles and staff writers for some secondary magazine articles.

Of the 29 journals which alerted journalists to newsworthy articles, 23 (79.3%) said they received more enquiries about those articles or issues. 4 respondents who did not claim to alert journalists to articles themselves noted without prompting that they received more enquiries when others (authors, funding bodies or professional associations) had contacted journalists. Enquiries concerning non-current articles were not systematically covered in the questionnaire, but several respondents mentioned receiving these too.

### 9.4 Different types of journal

The sample of journals was retrospectively divided into two categories: peer reviewed primary research journals (21); and professional update magazines and other specialist magazines for health care practitioners or lay consumers (24). The latter group in

particular was somewhat heterogeneous, and the sub-samples were not devised to be representative of the wider populations of journals, but a few preliminary observations will be made here.

Peer reviewed primary research journals were apparently more likely to be selectively distributed to the quality press or to be available to journalists by subscription arrangements only. Table 9.2 shows the number and percentage of primary and secondary journals with these distribution arrangements.

Table 9.2 Selective distribution arrangements among primary and secondary journals

|  | Primary   | Secondary |
|--|-----------|-----------|
| Preferential distribution to quality press | 6 (28.6%) | 6 (25.0%) |
| Journal available by subscription only     | 5 (23.8%) | 3 (12.5%) |

Peer reviewed primary research journals were slightly more likely to be distributed to journalists in advance of the general mailing and/or to be embargoed until publication date (see Table 9.3). Journalists were apparently less likely to be alerted to articles thought newsworthy from primary research journals. 13 (61.9%) of primary research journals alerted journalists to particular articles, while 19 (79.2%) of secondary journals did so. These results were not significant ( $\chi^2 = 1.62$ ,  $df = 1$ ), and it should be stressed that they are based on a far from ideal sample and should be regarded as preliminary indicators only.

Table 9.3 Timing of distribution and embargo arrangements in primary and secondary journals

|                                | Primary   | Secondary |
|--------------------------------|-----------|-----------|
| Sent in advance and embargoed  | 6 (28.6%) | 4 (16.7%) |
| Sent in advance, not embargoed | 1 (4.8%)  | 2 (8.3%)  |
| Not sent in advance, embargoed | 6 (28.6%) | 3 (12.5%) |

## 9.5 Discussion of method

One main weakness of this survey was the sample selection technique which, apart from the inclusion of 10 journals known from a previous study to be commonly used by the national press, was largely based on familiarity and ease of identification. It was thus



biased towards more general medical journals and those with fairly large circulations. At the time of selection, no distinction was made between peer reviewed primary research journals and secondary magazines targeted at health professionals or consumers. In retrospect, it might have been preferable to have surveyed primary research journals only, or to have constructed a sample so that the media relations of primary research and other types of journal could have been compared, controlling for subject scope etc.

Slight adjustments to some questions could, in retrospect, have enhanced the appropriateness of the information obtained. Although some respondents annotated their questionnaires when the response options did not suit, others may have been slightly constrained in their answers.

Respondents were only asked about current practices. There may be occasions on which the "typical" routine is changed, and practices may alter over time. One respondent in fact noted in a letter that she was hopeful of the proactive side of the journal's press relations developing within the year after the survey. Some of the questions of trends, norms and exceptions were addressed during interviews with source organisations and journal representatives. Although the questionnaire was limited, it did usefully provide an insight into the variety of information flows from medical journals and raised several issues for further investigation.

## 9.6 Summary

With the proviso that the above limitations of the method are taken into account, the following points can be made about medical/health journals' proactive dealings with news journalists.

1. A large proportion (over half of the sample) of medical/health journals are regularly distributed free of charge to at least some national newspapers.
2. Two thirds of the journal representatives who responded would alert journalists to specific articles which they thought particularly important or newsworthy.
3. Journal issues and information about particular journal articles were frequently sent to quality broadsheet newspapers but not to popular tabloids.
4. Embargoes were apparently more commonly used by peer reviewed primary research journals than by secondary publications.

## 10 Media relations for medical research

The information reported in this chapter is derived from interviews with a representative of the *Lancet* (LAN) and with press officers who handled media relations for the *British Medical Journal* (BMJ), *British Journal of General Practice* (BJGP), *British Journal of Psychiatry* (BJPsych), *Health Education Journal* (HEJ), *MRC News*, and *Which? Way to Health* (WWTH). It also includes comments from press officers who made proactive use of journal articles by researchers attached to their organisations.

Many of the general points made about media relations in chapter 7 apply to media relations for medical research. In particular, the journal representatives and press officers seemed well aware of the tensions between science and journalism and of the sensitive and highly influential nature of medical information. The focus of this chapter is predominantly on the transfer of information from peer reviewed primary research journals to lay newspapers. Most interviewees regarded the journals as the most appropriate initial source of stories about medical research, although they had some reservations about their use. One press officer from the pharmaceutical industry was altogether less happy with the use of information from journals, and commented:

We would take the view that if something has been submitted to a scientific journal then that is the right place for it. I think there is a great danger that journalists do pick up and selectively reproduce bits that were meant for scientific debate rather than for sensationalism.

Although this "danger" was recognised by the other press officers, for many of them it was outweighed by the feeling that the public should be informed about research activities and that information in journal articles was about as reliable as it could get. The pharmaceutical industry is possibly now wary about being seen to raise public hopes or anxieties.

### 10.1 Distribution of medical journals

The preliminary questionnaire survey of journal organisations revealed a variety of arrangements for distributing journals to journalists (9.1). Comments from journal representatives suggested that the choice of arrangement could be influenced by: the level of motivation to see the information published in the journal more widely publicised; perceptions of how interesting the information would be to lay newspapers; concerns about the likely quality of news reports; and available resources.

Press officers gave two main reasons for giving preferential treatment to quality newspapers in their journal distribution arrangements: the assumption that popular



newspapers were unlikely to print stories about serious research and the desire to avoid sensational reporting of serious research. The HEA sent the August 1991 issue of the *HEJ* only to quality newspapers because it included an article about the social and psychological factors predictive of high risk sexual behaviour in gay men. Popular newspapers were avoided in this case in an attempt to avoid having the (sensitive) research misinterpreted and to limit potential damage, although tabloid journalists could have obtained copies of the journal if they had wanted. Several press officers expressed a desire to improve the coverage of scientific medicine in the tabloid papers (see 7.11.2), but no occasions were mentioned of journals which were normally sent only to quality newspapers being sent to the popular press as well when they included articles likely to be picked up by tabloid journalists.

The sizes of journal distribution lists were apparently often influenced by a need to contain costs, but the simple exclusion of popular newspapers was not the only way used to limit numbers. The *BJPsych* was selectively sent to "those journalists who have shown an interest in psychiatry", as evidenced by enquiries received and media monitoring (see 7.12.2). Similarly, the media mailing list for *WWTH* was revised, especially in the case of freelance writers, on the basis of evidence (obtained from cuttings) of journalists' use of the magazine's material.

Journals might be sent to several different journalists within a news organisation. For example, the medical correspondent and the health page editor might both be included on the distribution list in the hope that journal articles could form the basis of both news and feature articles. It should also be noted that although this project focused on quality national newspapers and differential information flows affecting broadsheet and tabloid newspapers, journals are often distributed to a wider range of media outlets, particularly to trade and specialist magazines. Similar targeting decisions to those applied to the distribution of the whole journal are also applied to procedures to alert journalists to particular articles within journals (see 10.3 and following).

## 10.2 The timing of distribution

The preliminary questionnaire survey of journal organisations showed that not all journals operated embargo systems (see 9.1). The reasons most commonly given in the literature for sending journals to media representatives in advance of publication date but under embargo were (1) to allow journalists to prepare stories thoroughly with less pressure of time, and (2) to ensure that doctors, scientists and health professionals hear

about new medical information before the lay public do (see section 5.6). The first reason was confirmed by several press officers who claimed to use embargoes, for example, "to give journalists advance warning, to give them time to prepare the article", and "to give journalists more time to contact authors". They also appreciated that journalists would be less pressurised if they knew their rivals could not beat them into print. One press officer commented, "It would be sheer anarchy for journalists if they started to break embargoes".

The second reason seems challenged because several prestigious medical journals apparently no longer make significant efforts to ensure that doctors have a chance to read articles before their patients come across lay versions in the news media. The *BMJ* and the *LAN* are both officially published on Saturdays, but are embargoed only until the Friday immediately before. The *LAN* editor did note that one purpose of embargoes was so that doctors could have access to the journal and answer any queries about things their patients had read in the newspapers on Friday mornings, but although some doctors receive their copies on the Friday, many would not get them until Saturday. As suggested in 5.5, a single day would probably not significantly affect most doctors' ability to deal with questions, comments or demands from patients who are avid news consumers. One factor which may sway decisions about these embargo dates is that Friday newspapers might be seen as more serious (less leisurely) than Saturday issues, so the journals have more to gain by being covered in Friday issues.

Interestingly, the one magazine discussed in this study which used an embargo system primarily to ensure subscribers received information before it reached a wider audience via the news media was aimed at a lay audience. The Consumers' Association (CA), a large proportion of whose funding for consumer research derives from magazine subscriptions, felt obliged to ensure that its lay members received the information contained in *WWTH* before it appeared in newspapers. The embargo date was thus set after the publication date, and attempts were made to ensure subscribers got their copies a day earlier than journalists (although journalists may of course subscribe). Subscribers' privilege in this case also extended to cover the quantity and detail of information: the CA limited the amount of copy which journalists were permitted to use immediately. Further information could be printed under a fee-paying contract arrangement, but only after a period of time had elapsed since initial publication.

A third reason, not mentioned in the literature, was given in favour of embargoes by one press officer who thought they could be used to try and make journal articles seem



newsworthy. The reverse of this argument was that there was no need to embargo journal articles unlikely to become news. A press officer saw no need to put an embargo on *MRC News* because it was not a vehicle for publication of primary research:

*MRC News* doesn't really have news stories in it.... Although we see it as useful in that it might encourage journalists to look more closely at particular areas, we don't actually see it as a vehicle for getting out news stories. So *when* it goes out isn't terribly relevant. There's no embargo.

The tentative evidence from the preliminary survey of journals that peer reviewed primary research journals were possibly more likely than others to use embargoes was supported by several interviewees. A *LAN* representative said that after much time and many resources had been invested in peer reviewing and editing an article, it was worth something to them as a story and they had a particular interest to see the information was released "in a satisfactory way". Publication in a peer review journal establishes the primacy of a claim. It is the first time that data and interpretations, with a stamp of approval from representatives of the research community, are made public, and could be considered to constitute a news event. Timing might be less important for articles in "secondary" or less prestigious magazines.

### 10.3 Alerting journalists to newsworthy articles

Journalists may be alerted to particular journal articles by journal representatives, the funders of the research reported, the article's author(s), or an organisation to which the authors are affiliated. The impression gained during interviews was that they were most likely to be alerted by journals and funding bodies (although authors not affiliated to the organisations interviewed were obviously not accounted for). Direct publicity seeking by individual authors was widely frowned upon, and the media relations activities of most universities and hospitals (at least in their capacities as research centres) were, with some notable exceptions, thought to be under-developed.

Different interest holders tend to have slightly different motivations for seeking coverage of published research in the lay media. Journal organisations were apparently keen to secure mentions to affirm the news value of their journals and to attract subscribers. Several journal representatives also sought to improve public understanding of medical issues and to let people know how research money was being spent.

The major reasons identified by representatives of research organisations for seeking publicity for published research were: to increase public understanding (especially if the organisation had a public education or information role to fulfil); to alert medical

practitioners to advances, especially those outside their specialty; to encourage health care providers to use a particular treatment; to show members, donors, policy formers or a wider public that a useful piece of work had been done (which in turn could enhance funding appeals and/or the organisation's image); or to raise the profile of a particular disease, group of people at risk, or treatment.

The differing motivations were reflected in the different criteria used to select articles to which to alert journalists to, and the different means used to encourage media representatives to report journal articles. It was also suggested by several respondents that journalists' perceptions of the motives of the organisation approaching them might affect their decisions whether or not to use journal articles.

#### 10.4 Selection criteria

Journal organisations tended to have different criteria for selection of articles to which to alert the media from those of organisations whose interest is more focused in a particular research area, although there was some common ground in their appreciation of news and scientific values. Journal organisations were generally not too fussy about exactly which article(s) was(were) reported as long as the journal got a mention, although to enhance or maintain the reputation of the journal there was sometimes a preference that the research picked up would be recognised as important by medical and scientific personnel. Funding organisations, authors and their institutions, on the other hand, were usually keen to see "their" particular article reported and might attempt to increase the likelihood of it being selected in preference to others.

##### 10.4.1 Journal selection decisions

Journal organisations preparing news releases about their contents generally tried to select the article(s) most likely to secure a mention for the journal. They typically judged articles "on the basis of their interest or importance to the public". However, in seeking media access some journals were also keen to alert potential subscribers to the fact that important research was published in their pages and to see the public informed about scientifically or medically "worthy" research. This could create a tension because the articles most likely to interest the public were not always those which constituted the most important scientific or medical advance.

The *LAN* selected items which "*should* interest a science journalist", and the *BMJ* preferred publicity to be given to "original articles and research papers, preferably of



a scientific or clinical nature". In other journal organisations, the push for publicity could mean the scientific and medical lost out to the human interest:

I select articles from the *British Journal of General Practice* according to newsworthiness really. There was a piece in the June 1991 issue about *H. pylori* infection in the gut, which apparently contradicted findings published two months earlier in the *BMJ*. Clinically, that was probably the most important paper [in the issue], but there was also a survey on doctors' dress and how patients view doctors' dress. I selected that piece and we got quite good coverage in the *Times* and *Guardian* for it.

Journal personnel or the press officers of organisations which publish journals may feel obliged to send a news release or otherwise draw journalists' attention to something, even if the contents of a particular issue do not inherently lend themselves to media coverage. Several respondents mentioned having sent out material with little expectation that it would be used. One press officer who was required to write regular news releases about items selected by a journal editor expressed relief that a new editor had some awareness of what was likely to appeal to the news media:

The journal has a new editor now, and he has a policy ... of selecting things which are a bit more jazzy. That helps me, because before, it was really so bone dry I used to think "How can I make anything out of this?".

#### 10.4.2 Other organisations' selection decisions

Organisations closely involved with particular pieces of research and seeking media access for themselves and/or their interests are likely to take the opportunity to try and publicise any relevant research by their scientists which is published in peer reviewed journals. However, press officers can only alert journalists to articles they are aware of, and several of those interviewed had occasionally missed opportunities because researchers did not let them know about forthcoming publications. Other factors could also influence decisions whether or not to alert journalists to any one piece of research.

Press officers tried to capitalise on research which was strong in news values. One press officer asked three questions of a piece of research to assess the strength of a story: what does the research add to the sum of knowledge about the subject/disease?; how newsworthy is the subject/disease in its own right?; what benefits does the research potentially confer on patients? Judging on these criteria, the topicality of a disease would influence the selection or otherwise of research about it, and press officers would be more likely to promote clinical than basic research. Press officers might also focus on journal articles which had potential to carry messages for the organisation. Some were reluctant to alert journalists to controversial, potentially alarming or particularly tentative

results, and suggested that if they did so it would be with extreme caution. Also, if animals had been used in the research, publicity might be avoided for fear that authors and/or research institutions might be attacked by animal rights groups (see 10.12.1).

Press officers of research organisations might find themselves in disagreement with journal representatives over their selection decisions and/or the devotion of a significant media relations effort to the promotion of one article. A *LAN* representative expressed discomfort with the major influence of those organisations which put in a lot of such effort successfully:

The [media] coverage of what we publish depends enormously on the public relations efforts of authors or sponsoring bodies. For example, almost any paper published with the sponsorship of the Imperial Cancer Research Fund will get a big splash, because they're very good at producing interesting press releases and organising press conferences. The same is true of the British Heart Foundation and, somewhat less so, of the Cancer Research Campaign. I don't much like it because it often puts into the shade equally important articles by other groups who don't have a publicity machine.

One press officer's response to such criticism was effectively to suggest that if the journal was unhappy with the distribution of media coverage, it could and should rectify the situation by identifying the article considered most important and "getting everybody motoring behind it" with proactive approaches to the media. (As an aside, both of these viewpoints revealed a belief that well written and well timed press releases could influence journalists' decisions).

Some journals did not worry which articles got media attention. One representative positively welcomed charities' efforts to secure coverage for particular articles, reasoning that their news releases might have more appeal to journalists than those issued by the journal, and could thus increase the chance of an article from the journal being reported.

### 10.5 Journals' proactive approaches

Several journals, including the *BJPsych* and *British Journal of Clinical Psychology* (published by separate organisations) circulate their contents pages to journalists in advance of publication. Others, including the *BMJ*, circulate brief summaries of several articles on a news release<sup>1</sup>. If journalists are interested in any of the articles to which they have been alerted by one of these means, they can secure an advance embargoed

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1. The *BMJ* faxes/posts news releases to journalists on Monday, offering full text copies of the selected articles from Tuesday. These are embargoed until Friday. Some specialist correspondents on national newspapers still regularly receive full (embargoed) copies of the journal on a Thursday.



copy with a telephone call. Other journal organisations, including the *LAN* send brief summaries of several articles on news releases along with the complete journal issue closer to the embargo date. Journals' arrangements for alerting journalists tend to be quite flexible. For example, if an article in the *BJPsych* was thought particularly interesting and more likely than usual to be picked up by the lay media, a copy of it might be sent in advance with the contents page.

The number of journals distributing press releases about their content seems, from comments received, to be increasing. The BMA began press releasing articles from the (hitherto separately organised) *BMJ* in August 1991, and was to review the procedure for other medical journals under its auspices thereafter. The BMA also organised (sometimes jointly with research funders) news conferences about particular articles.

The *BMJ* and *LAN* are regarded as routine sources by the medical correspondents of national newspapers, but other journals might need to be more proactively brought to journalists' attention if their contents are to be reported. Some press officers thought it necessary to send an easy-to-read news release with a copy of the latest journal issue:

On the whole I think that if we just sent the journal without a press release, it probably wouldn't get picked up, because journalists can be quite lazy - particularly with academic research - and they wouldn't search through it [the journal] if they hadn't much time or if they had other stories coming in.

Others adopted different views and approaches. One press officer who did not write press summaries of journal articles said:

I suppose we assume that medical journalists can either read the journal paper and understand it or not.

Apparently, very few journals selectively alert different groups of journalists to particular journal articles. Only one interviewee described sending different news releases based on articles from a single issue to different specialists on national newspapers and to different sectors of the specialist or trade press, although within general medical journals there are stories which might appeal particularly to food, political and women's correspondents, for example, as well as to the medical specialists. Specific targeting obviously requires more time and resources than more general approaches.

#### 10.6 Other organisations' proactive approaches

The press officers of the major medical research charities and funding bodies regarded it as routine that they would alert journalists to journal articles about research they had funded which was of potential interest to the general public. The means used were more

varied than those of the journal organisations and included telephone calls, news releases and news conferences devoted to the particular article. News releases were probably most common, although these tended to be of a different type to those issued by the journal organisations. The approach used in any one case tended to depend on "what an article was worth". News conferences would generally be reserved for "big" or complex stories, or those thought likely to generate more telephone enquiries than could easily be handled by the press office and the research team. They provided good opportunities for explanations, clarifications and quotations to be given to many journalists at once.

Proactive approaches focused on just one article are possibly more likely to be more selectively targeted than those from journals which cover several stories, but press officers were unlikely to offer major research stories as exclusives to any one media outlet. Apart from the fact that they preferred to be equitable with important information, if the research was published in a medical journal, it could not be offered as an exclusive unless the favoured outlet was allowed to break the embargo.

In general, press officers thought proactive measures would increase the likelihood of an article being reported even if it was published in a journal which specialist correspondents were known to scan regularly. They gave them a "second bite of the cherry".

### 10.7 The aims of journal news releases

The general aim of all news releases is to secure media access, but different kinds of news release attempt to do this by subtly different means. Even organisations with as similar aims (in this situation) as the *BMJ* and *LAN* adopted different approaches when circulating their weekly summaries of journal articles. The aims of the *LAN*'s news release items were "to steer journalists in a certain direction of reporting" and "to give the message of the article (or letter) as clearly as possible". The summaries were pitched at the level of journalists with no science background, and "good" science or medical journalists were not expected to pay any attention to them. The *LAN* also used its news releases to discourage sensationalised reporting of any of its articles:

If we thought that an article might cause unnecessary alarm, then we would do something to play it down. Usually there would be some qualifying remark in the article itself which we could quote.

*LAN* news releases were described by one press officer as "fairly staid, shortened versions of the paper" with contact names and addresses appended.



In contrast, *BMJ* news releases were intended to serve as appetite whetters, inviting journalists to ask for further information. They were not intended to help journalists with the actual writing of a story and thus tended to be briefer, more tantalising and less informative. Almost a year after the new publicity arrangements for the *BMJ* had been instituted, a representative of the BMA deemed them "a considerable success", claiming they had led to an increase in press coverage of *BMJ* articles and a better service for journalists (previously, no news releases were issued). On average, about 10-12 journalists a week, mostly health correspondents on quality national newspapers, requested advance copies of particular articles after seeing the news releases, and the BMA's impression was that very few items not on their news release got publicity, particularly as news stories on the embargo date.

#### 10.8 The aims of other organisations' news releases

News releases from funding organisations tend to be longer, more comprehensive and more detailed than those issued by the journals. They also tend to be written with more ambitious aims. As well as bringing a topic to journalists' attention and presenting it in an alluring way as a potential news story, several press officers hoped that their news releases about research would encourage journalists to write a story by making it easier for them. To this end, they might (often in liaison with the researchers - see 10.9.2) attempt to summarise the research in plain English, to undertake any necessary translations of jargon terms, and to include explanatory background information.

We try to give a context within which the research can be placed. If for example, the story is about a new laparoscopic hysterectomy operation, we would say how many women have hysterectomies every year, how many would benefit from laparoscopic operations, which patients might be excluded.... When we're talking about a laparoscope, the man in the street doesn't know what it is and we have to explain....

They might also try to provide an appropriate "angle" and include quotable quotations. A typical "formula" for research stories would be to say "where the information places us in our understanding of a disorder and what benefits are conferred on patients". Several press officers were also keen to add information to that contained in the journal article, or to tailor the information in order to make it more relevant to a lay audience.

The journal's press release would just have extracts from the paper. We'd want to get in quotes from the scientists, and we'd want to turn it round a bit so the practical application came first and so on.

Several press officers said they aimed to write their news releases "as stories" which could be used directly as copy if the journalists so preferred. This meant that they would

tailor their news releases to the aspects of the research they thought the journalists would want to focus on. A certain amount of "steering" was possible, but some thought it pointless to include too much "nuts and bolts stuff" about methodological detail when journalists would want to report the consequences and implications.

It was generally recognised that journal articles were primarily written for an audience whose understanding of the subject would encourage "appropriate" readings of the research. Several press officers suggested that if appropriate readings were to be facilitated when the information was transferred to a lay forum, additional background information and guidance in interpretation might be needed. They were particularly keen to discourage journalists (and their readers) from over-interpreting results:

We can explain in layman's terms what it's about and we can actually add comments. The comments that we add tend to be caution comments. If you are writing for your (scientific) peers, they ought to know what the caveats are, what's gone before... But the lay person won't, and nor will the medical or science correspondents because they're covering all of medicine, all of science. So we tend to put caveat quotes in.

Caution statements were thought particularly necessary when discussing the potential benefits of research for patients. Although this could be one of the most newsworthy aspects of the story, there was an acute awareness that it needed to be handled with extreme care if hopes were not to be raised prematurely. One press officer feared that newspaper reports written "straight off the paper" were more likely to talk about breakthroughs and miracle cures than those in which possible interpretations had been tempered for lay purposes by an explanatory press release (although hyped press releases could, of course, have the opposite effect). Some examples of the "fine tuning" of press releases are given in 10.8.1.

While most press officers were keen to write news releases which would form an adequate base of information from which to write a story, some occasionally wished to limit news reports to the information on the news release. The CA is keen that journal subscribers who pay for information get a privileged amount of it. Journalists writing about *WWTH* articles are expected, in the first instance, to use only the information contained on news releases. More detailed reports are usually delayed until subscribers have had the information for a period of about 12 weeks. Since *WWTH* is written for a lay audience, no added explanations should be needed.

The final aim identified by press officers in writing news releases was to include and thus reinforce a message which the organisation was keen to promote. This might mean pegging a health promotion message to a piece of supportive research or emphasising the



name of the organisation which funded the research. A press officer from a medical research charity admitted (fairly typically):

[With the news release] We're giving a layman's synopsis of the research, and obviously pushing the fact that it was funded by organisation X.

#### 10.8.1 Fine tuning news releases

Several examples were given of techniques used to ensure that research stories were not over-interpreted by journalists. In addition to stressing the preliminary nature of studies and including caution comments as appropriate, high priority was given to ensuring that statistics were clear. Press officers tried to include absolute as well as relative risks on their news releases (or to get scientists to provide them during news conferences) and to put risks into context:

In 1989 two studies were published on breast cancer and the pill. One study showed that there was a 40% increased risk of cancer after 4 to 8 years of pill use and 70% more after more than 8 years of use. However, the author of the study was asked to put these risks into perspective, and point out that even an increased risk of 70% only meant 1 in 300 rather than 1 in 500. In conjunction with the press release, the ICRF issued a sheet from family planning organisations describing the benefits of the pill (its protection against ovarian cancer) and comparing the risk of taking the pill with the risk of death through abortion, death in childbirth etc. Press coverage was balanced as a result.

There was also a balance to be struck in preparing news releases, however, because if they were too cautious, potential coverage might be lost. This happened with a news release about a familial link found for testicular cancer:

1,000 mainly young men are affected by it [testicular cancer] every year. The ICRF wanted publicity for it because it wanted to locate more families for further research. The original press release said, accurately, in the introduction that having a brother with testicular cancer might increase your risk of getting it by ten times that of the general population. A revised release also said that testicular cancer should be added to the list of other cancers with familial links; that these accounted for only 1.5% of new cases; and that even a tenfold increased risk was still much lower than a woman's risk of getting breast cancer. These facts were included so the story would not be overblown, but they pretty well killed it.

#### 10.9 Arrangements to alert the media

For journal organisations, arranging to alert the media to the contents (or a sample of the contents) of a particular issue is relatively easy. The information being published and the date of publication are known within the organisation, and if it is the journal's policy to let authors know when their articles are included on news release summaries or when

it was thought likely that their articles might generate media enquiries, they are already in established contact with them.

Press officers of research institutions or funding organisations might find the process of alerting the media slightly more complex. As mentioned above, if they are to be proactive in the first place, they need to be aware that research is about to be published, and are thus dependent on researchers (who may be geographically distant and may not regard media publicity as a priority) giving them information about forthcoming publications. Press officers in these situations would typically need to liaise with both researchers and journal staff and to take various timing considerations into account.

#### 10.9.1 Liaising with the journal organisation

Several press officers expressed concern about the possibility of jeopardising their scientists' future publication prospects if they obtained premature media coverage for research due to be published in journals with embargo systems or policies against prior publication<sup>2</sup>. On the other hand, they did not want to be "late" in approaching journalists. The ideal was deemed to be planning a news release to reach the journalist at about the same time as the journal itself (so as to make a greater impact), with the information on the news release embargoed to the same date and time as the journal. This would keep journal representatives and authors happy and allow journalists to write stories with "now lines" such as "published today in X".

Timing approaches to the press to coincide with publication or embargo day required co-operation with the journal in question. Press officers often had news releases written and ready to distribute, then spent a while awaiting confirmation of when a particular article would be published.

We liaise with the journal itself, just to check on publication date so the journal and the press release from us hit the journalist's desk on the same day. We try to build up a good relationship with them [journal staff] so that they don't mind us making regular phone calls to say "Is Prof X's paper in this week?".

Usually, a telephone call to the journal to check which issue an article would appear in would be sufficient to find out when journalists would receive it. For less regularly published journals, publication and mailing dates could be erratic and thus problematic for press officers. One enterprising individual resorted to "a deal with the warehouse man", who then let the press office know when he received notice that a certain erratic journal was coming in, and mailed the journal out on a day agreed between them.

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2. See section 10.10 for a discussion of these concerns from the journals' viewpoints.



The immediacy factor is presumably more easily exploited in less frequently published journals, as journalists can truthfully talk about the "current" issue for longer. One press officer also admitted feeling less pressure to "come out simultaneously" with more obscure journals.

#### 10.9.2 Liaising with researchers

Press officers from research organisations would normally seek the co-operation of researchers when arranging to alert the media to journal articles. Scientists might be asked to explain their work in plain English, to put risks into context, and to highlight key points or sensitive areas for press officers to help them draft news releases. They were often asked to check the accuracy of the resulting summary. Some press officers had difficulty getting researchers to talk about their work in words which the public would understand, and to agree to versions written in simplified language.

I think that problem will be repeated over and over again: trying to explain research in user-friendly language without being accused by the researchers of being sensationalist.

There was an almost inevitable tension for representatives of "responsible, careful scientific organisations" who tried to speak only "the medical truth" but at the same time needed to get stories out into the media and to get people to understand what was going on. Sometimes, press officers and scientists would disagree as to what was appropriate.

When planning to alert the media to forthcoming journal articles, press officers would try to ensure that researchers would be available to comment or answer press enquiries when the article was published.

We try to make sure that the author is available for interview at the time. If they're not, it's too bad, but we try, so that journalists can embellish the story and build in a few quotes.

Press officers who knew in advance that authors might not be available around publication time would generally make an extra effort to include quotable statements in a news release and would possibly brief alternative "authorised knowers", typically media trained senior scientific personnel. They were generally keen to forewarn researchers if it was thought likely they would be approached by media representatives as a result of the publication of one of their articles, and would brief anyone unused to dealing with journalists. A press officer for a medical research charity said that she always reminded scientists in receipt of project grants to mention their source of funding, because while their university or hospital base would almost inevitably get a mention, the journalist would not necessarily appreciate where the research money had come

from. One perceived disadvantage of forewarning researchers was that those who were "really quite nervous about talking to the press" might be shocked enough to take avoiding action. One press officer suspected certain scientists of having arranged to be out of the country on journal publication day.

If a press conference was to be held, one or more of the research team would obviously be required to be available to explain the research and answer journalists' questions. Again, if the experts were not used to dealing with the media, they would typically be briefed or trained by press officers. Most speakers would be given a dummy run at presenting their information and handling questions before the event.

#### 10.10 Journal publication policies

Press officers were conscious of the need to respect journals' embargo dates when issuing their own information to the media. They were also aware of researchers' reluctance to speak to media representatives about their work before it had been published because of their fears of falling foul of journal policies against prior publication. The *LAN* editor, in fact, thought some of these fears unfounded, and suggested that neither the *BMJ* nor the *LAN* were so tyrannical.

The Ingelfinger rule has been much modified since Ingelfinger devised it. I think of it more as a matter of courtesy between authors and journals than a rule... Certainly as far as regards the *Lancet* and *BMJ*, they [researchers] have nothing to fear unless they give a sizeable chunk of their data to a journalist who reproduces it [before publication date].

A "sizeable chunk" would comprise whole tables and figures, which lay journalists would be unlikely to use anyway. The journals did not want to be seen as discouraging scientists from talking to journalists, and considered their fears unjustified.

#### 10.11 Journals and research of different types

Press officers appreciated that journalists would be more likely to pick up stories unassisted from the *BMJ* and *LAN* than from other journals, but several also suggested that journalists would use serious secondary journals as well as peer reviewed primary research journals as sources of story ideas and information.

The *AIDS Newsletter*, published by the Bureau of Hygiene and Tropical Diseases, is a secondary source of information "providing an authoritative, accurate and up to date synopsis, in straightforward terms, of the latest developments world-wide in AIDS as reported by the lay, scientific and medical press". Staff said the media used it as a source of background material on AIDS and would often consult them for further details



about particular stories, subjects or research papers, and particularly statistics. *MRC News* is the in-house journal of the MRC which includes short feature articles about research, typically accompanied by illustrations and photographs of research teams. It is not used as a substitute for publication in major peer review journals, and is not seen by the MRC as a vehicle for getting out "news" stories to journalists. Nonetheless, according to a press office representative, "the press actually do pick up quite a bit from *MRC News* and do say that their original source was *MRC News*".

It could be that it is easier for journalists to use information from secondary publications than from journals publishing cutting edge research because it has already been digested once and is more appropriately pitched. Secondary journals possibly also focus more on applications and implications, and have a more accessible writing style for non specialists. Press officers did not think journalists writing for quality national newspapers were totally uncritical of their sources. One mentioned that she was often asked to identify scientists who could comment on American research which journalists suspected of being "a bit wow-whee". Journalists' opinions of secondary journals were not explicitly explored during the interviews.

#### 10.12 Constraints and remedies

Journalists will only be exposed to information about a small proportion of all the medical research carried out, and are unlikely to come across much of that which is not published. Publication bias could affect newspaper coverage of research, although studies which are not published in journals because of incomplete or negative results would be unlikely to appeal to newspaper journalists. Of published research, journalists are only likely to come across that which appears in journals they scan themselves and that to which they are alerted by other individuals or organisations. Research is thus more likely to come to journalists' attention if it is published in a prestigious journal, is funded by or otherwise connected with an organisation with a (proactive) press office, and conducted by researchers alert (or obedient) enough to let the press office know when their work is about to be published.

Press officers mentioned several ways by which they increased their awareness of the research conducted in their organisation, including: ensuring that they received details of projects and research grants approved by the organisation, and then following these up; appointing (and training) liaison officers in different research units; and regularly ringing round (or visiting) research centres to ask for information. Most press officers

thought scientists were on the whole willing to speak to them, but that they sometimes just did not think to tell them, for example when they had a research paper about to be published, as a matter of priority. Several press officers had reduced this problem by "courting the scientists" at lunches and parties during which they stressed the importance of telling the press office and the public about their work.

Press officers could not rely on identifying stories from the journals themselves, because apart from the difficulty of monitoring so many of them for work published by members of their organisation or people in receipt of project grants, they generally did not receive their copies (if they received them at all) until after the embargo date. This latter fact also precluded them from proactively arranging to offer comments to journalists on published research conducted by other organisations. The uncertainty of publishing schedules was a related problem. Several press officers complained that they could not arrange effective proactive approaches to the media if they did not know when reports were going to be published.

Some press officers from statutory bodies and health authorities occasionally felt constrained in their media relations activities and what they could publicise about research (particularly into health services and policies) because of political sensitivities.

If we have a realistic remit to tackle these issues, then we have to be able to highlight what we see as being the real problems. But that does bring us up against government departments... They fund this sort of work and then possibly can't bring out the main points if they are contentious and critical of government policies.

At least one press officer had been "rapped on the knuckles" by a Secretary of State for writing a news release about the results of a simulation which showed a proposed policy in an unfavourable light. Some press officers felt constrained by the possible effects of media coverage of medical research, although this would generally lead to cautious media relations rather than the absence of media relations activities. The publication of "sensitive" research in an "independent" journal was welcomed by some press officers as an opportunity to obtain publicity for information they were keen to see publicised but which they felt unable to put out directly from the organisation. The pharmaceutical industry was sometimes constrained in what it could write by the ABPI code of conduct which prohibits direct communication with the general public about particular products.



### 10.12.1 Animals in medical research

One major exception to press officers' opportunistic approaches to securing publicity for medical research was when it involved animals. The fear of violent action by animal rights campaigners against researchers made several organisations wary of publicising research projects in which animals were used, in whatever capacity.

We must think through all the implications of our publicising the research work and we have to be very sensitive to this issue. It's not that we keep it quiet because we think that it's unacceptable, it's because it's actually unsafe.

There was a distinct tension on this subject, because the press officers (and their organisations in general) were all keen to be open about the animal research they conducted, and to put across messages that would counteract those put out by animal rights campaigners. They wanted to communicate that experiments were only done on animals when there was no alternative; that the animals were treated as well as possible; and that human lives were "saved" as a result of experiments involving animals. They had to seek ways of doing this which minimised the risk to individuals and did not "detract" from the good news of particular research results which might have depended on animal research in their early stages.

Both the pharmaceutical industry and the medical research charity sector had set up bodies to provide information to counterbalance that put out by anti-vivisectionist groups. These were in addition to independent organisations such as FRAME and the Research Defence Society. The work of putting across the desired messages about animal research could thus be done by people who were committed to and trained to do that, rather than by researchers who were uncomfortable about exposing themselves, their families and their research teams to risk of attack. Several organisations had policies whereby scientific/medical/research directors would also serve as spokespersons on the issue rather than individual researchers from particular projects.

Other approaches used to put across the desired messages about animals in medical research were to arrange for journalists to visit laboratories so they could "see for themselves", and always to respond to letters or adverse publicity in the media by writing letters to editors for publication. Several press officers mentioned the difficulty of countering the emotive arguments used by animal rights campaigners, and a couple had recently (very cautiously) adopted the tactic of finding parents of children whose life-saving treatment had depended on the use of animals and who were prepared to tell their story to the media. This approach was considered possible in tabloid newspapers or for health page features in the broadsheets.

### 10.13 Opinions of newspaper coverage

Press officers and journal representatives were generally quite satisfied with news reports in quality newspapers about research published in medical journals, although some journals complained about journalists' selection choices (and the ways these were influenced by media relations efforts) and other press officers acknowledged that it was extremely difficult to get coverage of certain types of research.

Most were of the opinion that the specialist journalists on the daily quality newspapers produced accurate, balanced and responsible reports and were unlikely to inappropriately herald miracle cures or breakthroughs. One press officer noted the general lack of hostility of medical journalists towards the medical research establishment and the beneficial (from their point of view) effect on reporting:

Most science journalists haven't got a real axe to grind, so they're generally quite positive.

Another press officer suggested that inaccurate reporting was most likely to occur when information had not been directed through normal media relations channels.

It has been known that journalists have not reported results accurately. It is usually when they have not responded to a release but gone directly to researchers off their own initiative and researched something then put it out. Obviously they do that to get in first, but they don't have the benefits of the information being validated if you like by the organisation.

Several press officers noted that even if the medical journalists reported a story responsibly and accurately, it was possible it could be re-written by a sub-editor who wanted to "firm things up a bit". This was thought relatively rare on quality newspapers.

### 10.14 "Early" publicity for research

Organisations which fund research by awarding project grants and funding fellowships etc., often issue news releases about these, although press officers generally thought they were more likely to appeal to relevant local media outlets than to the national press. Although one press officer had stopped notifying national newspapers of such awards because of the lack of uptake, another continued to do so after being told by a specialist correspondent that even if they were not used immediately as a source of news stories, the news releases were useful as a reference source of likely expert contacts.

Several press officers said they would sometimes use the media to attract volunteers for clinical trials, although they did not discuss the methodological implications of this.

If we need volunteers, we say so. If we don't we also say so. We say, "Look, it's a very small programme, it's very much at its early stages."



Research into health care outcome indicators could be another example to which it would be useful to alert the public at an early stage and encourage their involvement. Several press officers talked of journalists "helping" them when they wanted to attract recruitment via editorial columns.

The main arguments proffered in favour of publicising research in its early stages were that if public money was being spent, then the public had a right to know what was being done with it, and that people suffering from a disease had a right to (realistically) know what was being investigated and which areas of research appeared encouraging. Also, if there were any ethical or other controversies surrounding the research, it could make news in its early stages. The planning and funding arrangements for a trial of Tamoxifen as a preventive measure against breast cancer were mentioned in this context. Publicity for research at an early stage of a particular project might be more likely to include details of the methods used.

One argument offered against early coverage of research was that it tends to imply (or is thought to be understood to say) that the hypothesis would be supported, typically that a "new" treatment would work. However, not all press officers assumed that the public would imagine that all research would produce immediately useful results or that all drug therapies tested would prove beneficial. Some of the differences of opinion about what should be said publicly and when seemed to be rooted in different perceptions of how people would respond to the messages in their newspapers, although no-one could claim to base their assumptions on an empirically tested understanding of how people really would read and understand them.

In discussing research in its "early stages", a distinction needs to be made between reporting on the early stages of a particular project and reporting on research (possibly completed and published projects) which constitutes a preliminary investigation of a particular problem or potential treatment. Phase I and II trials of a particular drug would be examples of the latter. They might produce highly encouraging results, but would still leave many research hurdles to be jumped before the drug could be offered to patients.

The main arguments voiced against publicity for results which are early (presumably in either sense) were that even if the media relations material and comments from experts stressed the preliminary and tentative nature of the results, news reports were likely to omit caveats and possibly raise hopes inappropriately. All the press officers were keen to avoid problems of reporting which claimed too much and could raise false hopes, but for most of those attached to organisations involved in conducting research,

the feeling that the public should be informed was stronger than the fear of seeing their cautious statements over-interpreted in the media.

I think we have a duty to tell people what we are doing. We would never make rash claims that we could not substantiate.... Sometimes in the press it appears that way, but you can be reassured that when we've told them, we've told them like it is.... People are desperate for information, and they're not going to get it from any other source but the charities like us. So as long as the statements we give are measured and sensible, and most importantly accurate, we feel that we have a duty to tell people.

The stance adopted on this point was possibly influenced by the affiliation and background of the press officer. A pharmaceutical company press officer was not keen to see clinical trials much publicised at all because of the possibility of creating undue patient expectation. Pharmaceutical companies are presumably extremely cautious of any practice for which they might be criticised. They are also less pressurised than medical research charities to communicate all their research success stories to the public because their funding is not dependent on donations - sales revenue is primarily helped by communications with prescribing doctors rather than with patients.

As a general rule, most press officers thought publicity for preliminary results from research projects inappropriate, and would leave clinical trials in particular "a good long time" after the launch and recruitment stages before alerting the media to them again.

I think there are probably two times when it is appropriate to publish news about research. The first is when the funding is awarded and the project is starting, because it is in the public interest to know that this area is being investigated, that this research is being carried out and who is funding it... The next occasion is when they actually publish the results. Any time in between those two, for obvious reasons, it's ill advised.

Sometimes, press officers were put in situations where they could not avoid commenting (or getting their scientists to comment) on research at an early stage, whether of an individual project or in the overall scheme of things. One press officer described a case when a story was inadvertently "leaked" to a journalist by a partying senior scientist. In such a case, not to cooperate would leave the journalist to do what he could with the story with little hope of getting the facts right. The most appropriate damage limitation exercise was seen to be to speak with the journalist and stress that the research was based on a speculative assumption which looked promising and was considered worthy of investigation, but which ultimately might not come to much in the fight against disease. Another press officer gave an example of a case when preliminary research results were due to be presented at an AIDS conference at which journalists were bound to be present. Given that the data from phase I and II trials of a hopeful



product were likely to be picked up by journalists at the conference, it was deemed sensible to pre-empt that with a balanced press release.

I think that's a classic case of why you *would* communicate earlier rather than later, and that's because you've got more control of the message if you proactively communicate rather than have a journalist sitting at the conference and perhaps getting half the story.

The pharmaceutical industry was also likely to have to discuss or comment on some early stage research to the financial press because of its obligations to keep the stock market informed of its activities.

In general, it was thought preferable to discuss ongoing research in feature articles where hard results were not needed, but the research problem or disease could be explored with a review of the kind of work being done and hopeful areas.

#### 10.15 Other sources of information about research

In addition to journals, annual scientific reports and internal or independently published reports were sometimes used as sources of medical research stories by press officers. One press officer commented that their scientific report was such a weighty tome that she suspected only the Director of Research and the press officers read it from cover to cover. It was usually the subject of a press conferences, with selected items of current research being highlighted, usually centred on a particular theme.

Several press officers mentioned the difficulties of getting scientists to remember to alert them to research published in the form of internal or independent reports.

There might be quite a few research reports which, unless somebody tells us about them, aren't necessarily going to come to light. They may just lie on the shelf and not do anything, whereas in fact we could have done something with them.

Although they were self-contained stories with the advantage of a publication date as a news peg, they were thought possibly to appeal less to journalists because they did not have the "independent" endorsement of a journal's peer review system.

#### 10.16 Summary

Some of the main points about media relations for medical research as identified from the interviews with press officers are summarised here.

1. Peer reviewed journal articles (and media relations information based on them) were widely seen by press officers as the most appropriate initial source of medical research

stories for lay journalists. The peer review process was seen as providing an independent check on and endorsement of the quality of the research and the validity of the interpretations. The minority voice which did not approve the use of journal articles as sources of news stories argued that journal papers were intended for discussion amongst scientific and medical peers rather than sensational announcement to lay audiences, and that the information should remain in the scientific/medical community.

(It should be noted here that some published peer reviewed research provides more tentative answers to a problem than others. For example, while the results of early phase clinical trials might be published, they provide less certain information about the promise of a new drug than later phase trials. Published case series are less likely to provide clear evidence about the effectiveness of a particular medical intervention than are large scale, well designed randomised controlled trials).

2. Several factors made medical journal articles likely "triggers" for media relations activity about medical research.

- a) It was relatively easy for organisations to set up systems requiring researchers to alert the press office to their forthcoming publications.
- b) The journal's stamp of approval in publishing the research lent independent weight to the story.
- c) Researchers would be more willing to co-operate with media relations efforts once the article was published, because they no longer feared falling foul of journals' policies against prior publication of their material.
- d) The press officers could use the publication date to appeal to journalists' preference for a "today" peg to indicate the currency of the news.
- e) For organisations wary of being seen to be actively publicising medical research with politically sensitive results or implications, journal articles could provide a suitable channel (or excuse) via which to alert journalists.

Two other factors were seen as enhancing the likelihood of journalists paying attention to media relations material about new journal articles:

- i) Journalists might come across the research while scanning medical journals of their own accord, so press office communications could reinforce their (preferred) independently found interest.
- ii) The organisation's media relations efforts might be reinforced by those of the journal.



3. Medical research projects are sometimes the subject of media relations activity before they reach publication stage. Such early attention is most likely at grant award, research launch or volunteer recruitment stages, and when results are presented at conferences. If journalists obtain information about a research project by other means before it has been published, press officers generally try to ensure they have access to "appropriate" information and people to encourage them to report the story as well as possible.

4. The press officers interviewed, particularly those from the charity sector, generally felt that the public right to know what research was being done with public money, and to be told of apparently promising areas of work, should be respected. They were not overly pessimistic that the public would misinterpret information about medical research and thought the most responsible approach was for them to provide information to journalists in a balanced way, noting the status of the research and cautioning against over-interpretation. They felt it was preferable to see a few mistakes made by journalists, and possibly even a few inappropriately sensationalised reports, than to see research information withheld from the public completely.

However, for a few press officers, the fear of sensational news stories which would generate false hopes or anxieties among their readers was dominant and they avoided issuing information about "early stage" research unless it was absolutely necessary.

5. Direct publicity seeking by individual authors of medical journal articles was frowned upon. Most media relations activity surrounding journal articles was apparently carried out by funding bodies, journal publishers and, to a lesser extent, research institutions.

6. A significant amount of effort was invested by some organisations to encourage journalists to report on journal articles, but the motivation behind and focus of this effort varied according to the relationship of the promoting organisation to the research. Funding bodies sought to enhance coverage of research conducted under their auspices, and would emphasise to journalists their own involvement. Journal organisations were generally keen to attract subscribers. The prestigious ones hoped to publicise the fact that important research was published in their journals, while others were glad of even a light hearted mention.

The media relations efforts of funding organisations were welcomed by some journal publishers because they could increase the chance of their journal getting mentioned, but were resented by others who thought that by focussing on one article they might divert attention away from "more important" research which originated from less media hungry

organisations. What the prestigious journals saw as important was not always what the funding bodies wanted to see published.

7. In trying to encourage journalists to report on published research, press officers perceived a tension between the values of scientific/medical importance on the one hand and human interest and general attractiveness to newspaper journalists on the other. Some press officers alerted journalists to journal articles high in human interest rather than those they thought "worthy but dull", because they considered the former more likely to be reported.

The press officers were keen in their media relations activities to discourage over-interpretation or sensationalisation of research findings, but were careful not to take this so far as to kill a story when presenting it to journalists.

8. The pattern of media relations activity is such that research is more likely to come to journalists' attention if it is published in a prestigious journal, if the journal produces information for journalists, if the research is funded by or otherwise connected with an organisation with a (proactive) press office, and if the authors are alert (or obedient) enough to let their press offices know when their work is about to be published.

9. The explicit motives offered by the press officers for encouraging lay media coverage of research stories included fulfilling an obligation to let the public know what research was being conducted and improving public understanding of medical science. The press officers also admitted that they were very concerned to secure positive mentions for their organisations. Their descriptions of media relations efforts which focussed on obtaining mentions and acknowledgements for research funding bodies suggest a high priority is given to increasing public appreciation of particular organisations' contributions to the medical research effort.

10. The press officers using news releases and press conferences to alert journalists to information published in journal articles were an important node of information transformation. They suggested they would tend to change the slant or emphasis of the information in the following ways:

- translation of medical jargon into plain English
- addition of caveats and cautions against over-interpretation where appropriate (although not to the extent of "killing" the story).
- addition of explanatory background information to make the research and its implications clearer to lay journalists and their readers
- addition of emphasis on the funders of the research



- addition of quotable quotations
- adjustment from formal medical journal to news report style

11. Media relations activities to encourage journalists to report stories from medical journals generally require press officers to liaise with the researchers in their own organisation and with the journal organisation. Scientists would be expected to alert press officers to their forthcoming publications and possibly to help with the provision of written and verbal information to journalists. Journal organisations might need to be consulted about publication dates so that the timing of media relations activity could be planned.

## 11 Journalists' use of medical journals

This chapter incorporates the results of the preliminary questionnaire survey of journalists and relevant data from interviews with specialist journalists. The questionnaire survey, as described in section 6.4, was intended to provide basic insights into journalists' use of medical journals and to highlight areas of interest for discussion during interviews. 15 completed questionnaires were returned, giving a response rate of 68.2%. 9 respondents wrote for daily broadsheet newspapers, 2 for Sunday broadsheets and 4 for daily tabloids. As the questionnaires served as tools for preliminary investigations rather than full scale surveys, the results are quite briefly presented in sections 11.1 to 11.4 and complete tables of results are provided in Appendix 9.

The interviews probed some of the reasons behind the actions reported in the questionnaire survey, and allowed journalists to elaborate with illustrative examples and instances. During interviews, discussion of medical journals concentrated on the use made of the *British Medical Journal (BMJ)* and *Lancet (LAN)* in news stories, and sections 11.5 onwards are similarly focused. The chapter concludes with a consideration of journalists' use of information about medical research at different stages, and some of the problems which journalists experience when reporting medical research.

### 11.1 Use of different medical journals

When asked to describe the frequency with which they used 6 journal titles, 13 out of 15 journalists (including at least one from every newspaper studied) claimed to consult every new issue of the *BMJ* and the *LAN*. *Which? Way to Health*, a consumer health magazine, was also frequently consulted, with 4 journalists claiming to consult every issue and 9 more to consult it quite often. Individual patterns of journal consultation should be interpreted cautiously because teams of specialists often plan to cover a core set of journals between them. Several journalists indicated on their questionnaires that responsibility for covering particular journals was allocated among the newspaper's specialist staff. In future surveys, questions about the journals consulted regularly as sources by the respondent might best be accompanied by parallel questions about the use made by their colleagues of the same journals. This would allow a better overview of the sources used in the making of any one newspaper.



In an open question about other<sup>1</sup> journals of which new copies were scanned more than three times a year, 10 journalists named one or more magazines targeted at general practitioners, and 4 named one or more nursing magazines. The most popular medical titles mentioned were: *New England Journal of Medicine* (9 respondents); *Journal of the Royal College of Physicians* (5); and *Journal of the American Medical Association* (4).

Journalists were asked to indicate by which of six listed means they usually gained access to new issues of journals. All 15 said they received some copies free by arrangement with the journal. 12 also said their newspaper subscribed to a copy which was kept for or circulated to them, and 3 took out personal subscriptions. Two respondents (occasionally) used other libraries, and one consulted some journal texts online. One journalist additionally mentioned receiving unsolicited journals and magazines, and it is likely that this is quite common.

### 11.2 Sources and resources

14 journalists indicated whether they regarded certain things as necessary, preferable or unnecessary when reporting an article from a peer reviewed journal. Although preferable and unnecessary are not mutually exclusive, most journalists probably appreciated the intended ranking whereby something said to be preferable was considered more important than something said to be unnecessary.

Access to the full text of the journal article was considered necessary by 11 and preferable by 3 respondents. One of those who considered full text access preferable was the only person who considered consultation with the author necessary. 10 thought consultation with the author preferable, and just one thought it unnecessary (unless the article was badly written). A similar pattern (1 necessary, 8 preferable and 3 unnecessary) was seen regarding consultation with a medical expert other than the author. As two journalists indicated, individual articles are in practice each treated as separate cases, so these generalised responses should be regarded as indicative only.

The journalists were fairly evenly split about the importance of personal understanding of background issues, technical details and implications, about half rating it necessary and half preferable in each case. When asked to rank their most likely sources of background information to clarify understanding of a journal article, individual journalists showed quite varied responses. Overall, personal files or reference material

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1. Journals already named were: British Journal of General Practice, British Medical Journal, Health Service Journal, Lancet, New Scientist and Which? Way to Health.

were ranked highest (76 points<sup>2</sup>), with existing personal medical or scientific contacts (66) and the newspaper's library (62) fairly close behind. The least likely sources for this purpose were external medical libraries (16), journal staff (18), and the Media Resource Service (21), although one journalist who ranked the three written sources (personal files, newspaper library and medical libraries) lowest ranked the MRS second. Although this question revealed useful information, it was limited because it failed to ask respondents to include article authors in the ranking. As frequently used sources, journal authors should not be omitted from future investigations of this subject. Three journalists noted unprompted that the author would be their first choice of source in such cases.

The importance of personal files was confirmed when journalists were asked whether or not they kept articles or journals for different reasons. All 15 admitted keeping material about topics of ongoing current interest and information thought useful for background reference. All but one filed articles about subjects or issues of particular interest to themselves, and all but two kept material about which they had written.

### 11.3 Opinions of news releases

Respondents were asked to rate the extent of their agreement or disagreement with five statements about news release summaries of medical journal articles on a four point scale (no neutral response was permitted). 12 respondents completed this question, and all agreed (2 strongly) that news releases were useful in drawing attention to newsworthy articles. They were also unanimous that the news releases provided accurate summaries of recent research findings, and that those originating from peer review journals were quite objective and credible, although few respondents agreed strongly with these statements. Opinion was divided as to whether the news release summaries were often an adequate basis for a news item: 6 respondents disagreed and 6 agreed (1 strongly). As one journalist noted, the adequacy of news releases varies according to the source. 8 respondents agreed (4 strongly) that they would be wary of news releases coming from the author of an article or funder of a piece of research. 4 others disagreed. It seems likely that this question was a little too general to be particularly useful. As was discovered during the interviews, some charities which fund research and issue news releases are very well respected by journalists, while pharmaceutical companies are likely to be regarded with suspicion (see section 8.2). Attitudes to news releases would

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2. 7,6,5,4,3,2 and 1 points respectively were given to ranks of 1,2,3,4,5,6 and 7. No points were assigned to lower ranks which were not indicated.



be better studied by more specific questions, possibly about particular examples, because news releases vary enormously in quality, and the correspondents' attitudes towards different types of organisation may affect their decisions in any given case.

When asked who would select items from *LAN* news release summaries to report, journalists from every paper named the medical correspondent, although some added that in their absence either a science or social services reporter would undertake the task. Several journalists annotated their questionnaires to the effect that selection decisions were often based on the whole journal contents rather than the news release summaries. This pinpointed a weakness in the questionnaire design, but the responses to a question about the criteria on which selection decisions were based probably still provided valid answers. The question was open ended, and received several general "newsworthiness" type responses which obviously beg further questions. However, as a preliminary trawl for relevant factors, it was quite useful. The following were mentioned: being of general/lay interest (7 respondents); topicality (4); importance/relevance (4); newness (advances) (2); controversy (1); entertainment (1); rigour of research (1). One journalist responded by giving examples of the kinds of topics likely to be selected:

Subjects like heart disease, cancer, cot deaths, smoking, alcohol and AIDS are always a must.

If they were likely to report on a news release summary, the 13 journalists who responded to the question would either always (10) or usually (3) consult the full text of the article. However, five journalists said they would sometimes find the summary alone adequate for a news report (two noted that this would only be true for a very short news item). Most respondents said they would either usually or sometimes contact the author or another medical expert. The one journalist who claimed always to consult the author did so in preference to consulting the full text, and the one who claimed always to consult another medical expert wrote for a Sunday newspaper and usually needed to be able to extend the story.

#### 11.4 Limitations of the preliminary survey

In retrospect, the large proportion of closed questions and structured nature of this questionnaire did not ideally suit its purpose, which was to act as a preliminary probe. Although several journalists noted additional relevant comments without prompting, some were possibly inappropriately constrained in their answers by the options given in fixed response questions. On the other hand, the obvious ease of completion of a structured questionnaire possibly encouraged a reasonable response rate.

Several improvements could be made to the questionnaire for future surveys investigating journalists' use of journals, some of which have been discussed above. In addition, some of the further questions suggested by responses to this survey might more appropriately be addressed using different approaches. For example, after establishing whether journalists considered access to the full text of an article, consultation with an author and consultation with another medical expert to be necessary, preferable or unnecessary, it would be useful to investigate the frequency with which journalists actually use the full text and manage in practice to interview various sources. This might best be studied by diary or log keeping methods, or by observation studies, although for busy journalists, the former two are not easy options.

### 11.5 The BMJ and Lancet as regular sources

The *BMJ* and *LAN*, as the two prestigious general British medical journals, were regarded as rich sources by specialist correspondents, who expected to find in them several possible news stories on most weeks. At least one journalist on each of the four daily newspapers studied scanned every issue of both journals, and in two cases responsibility for covering them was formally assigned.

The journalists generally regarded what was published in the journals as "new", or at least "current": "You know that they are producing reports on the latest things". They thought research was given credibility and respectability by being published in the *BMJ* or *LAN*, which they considered unlikely to include anything "cranky". One journalist commented that the same piece of research would be given more consideration as a potential news story if published in one of these journals than if published elsewhere. However, publication in the *BMJ* or *LAN* did not necessarily make research newsworthy, and many journal articles were thought to hold no interest for most newspaper readers.

There are some weeks when, despite the fact that you've got 20 or 30 research articles and as many letters, there's not a single one that you think needs transmitting to the great British public.

The number of *BMJ* or *LAN*-derived articles which specialist correspondents on national newspapers submitted to their news desks on Thursdays (for Friday embargo dates) would depend on how many interesting stories they thought the journal issues contained, what the other health stories of the day were, and how many health stories they thought their news editors likely to include (which depended partly on the overall quantity and strength of "news" stories that day). The selection of journal based stories would generally be discussed like any others between journalists and news editors.



## 11.6 Media relations and medical journal articles

The journalists spoken to admitted that in addition to scanning new issues of the *BMJ* and *LAN*, they might also be alerted to information published in them by other means. They might notice reports in secondary journals or lay news outlets, or be alerted to articles by researchers, funding bodies, journal publishers or other interested parties by means of press conferences, news releases, additional publications and telephone calls. Several noted that medical research charities, particularly the BHF and ICRF, were quite predictable in sending out a fairly lengthy press release whenever research they had funded was published in a major journal.

The means by which journalists come across information may influence their opinion of it. One medical correspondent preferred to work through journal contents and identify stories for himself, because of the satisfaction of knowing that no-one else was telling him what was newsworthy. The respect which journalists have for different organisations (see 8.2) could also affect their selection decisions.

### 11.6.1 News releases

As discussed in 7.10.1, 10.7 and 10.8, news releases differ in their aims and styles according to the aims and skills of those producing them. The journal news releases, which are intended to signpost newly published research rather than provide full detail, are probably more useful to journalists writing news stories than to feature writers. The correspondents thought the journal articles included on the journal's news releases were not necessarily those which they themselves would consider most newsworthy from a given issue. A fifty percent match was estimated by one respondent. Another suggested the views of journal staff and journalists would differ most when there was "not a lot going on" and there were no stories which were "obviously good" in journalistic terms.

There was an implicit recognition that although journal staff were usually at least basically familiar with news values, their criteria for assessing what was important often differed from the journalists' own. In particular, they were thought to make inadequate distinctions between the worthy and the newsworthy. One journalist commented:

It has been my experience that the stories the journals think are stories are not the stories I think are stories. They will flag up something very detailed and very technical, because it might be a genuine advance in that specialty, but to the great British public, it's too technical. You think "So what? Some doctor has got a very new high-tech diagnostic tool for some very rare disease".

Another pointed out that the first item on that week's *LAN* news release "didn't work as a news story" because it was not of wide enough appeal and, again, was too technical.

Some of the summaries, particularly those from the *BMJ*, were criticised for being "a bit bald", and for lacking information and "angle".

However, the news releases were not considered a waste of time. Several journalists found it helpful to know what the journal regarded as important, even if they were not going to be swayed by that into reporting the article. News releases could whet their appetites before the journal appeared, and help them make a quick appraisal of the articles mentioned. In addition, the *LAN* news releases were considered useful because by explaining stories in layman's language, they saved journalists the time and trouble of looking up technical terms or complicated concepts. This merit was shared by most news releases originating from funding organisations. The journalists confirmed that they regularly received news releases about the latest journal articles from funding organisations such as BHF, CRC, ICRF and MRC. They valued these for the inclusion of background information and contact details for one or more authors.

#### 11.6.2 Press conferences

Journalists were aware that press conferences about newly published research might be organised by people with various motives, and that their quality and usefulness varied. As with press conferences in general (see 8.4.3), the journalists agreed it was sometimes useful to have all the relevant experts gathered in one place at one time but they varied in their propensity to attend.

One journalist thought press conferences about apparently clear and self-contained journal articles superfluous, because they would add nothing to the story and would not make efficient use of valuable time.

Sometimes (a press conference) is a waste of time because you've already got the journal paper and it's quite full enough. On a busy Thursday afternoon you don't want to be dragging to the other end of London, let alone out of London, to ask questions that don't need asking.

Another journalist would normally go to press conferences about *BMJ* and *LAN* articles even though he had all the information in written form. He valued the opportunity to talk through the subject and make sure he was hitting the right nail on the head, to see the slant which authors put on the story, and to pick up quotable quotes. It was also recognised that a stronger story might be presented at a press conference than in the journal article. However, this was unpredictable, and journalists had to take a chance as to whether their time would be well spent if this was what they were hoping for.



### 11.7 Identifying potential stories

In keeping with indications from the preliminary questionnaire (11.3), none of the correspondents relied on journal news releases to identify stories among journal articles, partly because they recognised the risk of missing items which were not included but which might be "fun" and interesting. They used a variety of techniques and features to identify potential stories.

The journal contents pages were widely used to make a preliminary check for useful material. Several journalists found some article titles difficult to understand, and would thus work partly from the names of authors:

You look at the *Lancet* and if you see so and so's name, you know he's eminent, you know he's good.... You do recognise that there's this expert in cancers, that one in AIDS, and if they've got something in there it's probably quite good.

Journalists also mentioned looking out for key words or key diseases:

You recognise that there are certain subjects that tend to make the newspapers from journals that you can home in on.

One journalist claimed to read the journals from cover to cover, but his intended meaning, given the time constraints under which he operated, was probably the more common practice (described by another medical correspondent as typical of most of his colleagues) of reading the abstract and conclusions of each article and using these to make a decision whether or not to read further.

We say "Well, is that conclusion significant, interesting, newsworthy?" If it is, and the summary and the conclusion both give that impression, then we might read the whole thing, but if it doesn't, we just go straight on to the next one.

Several specialists mentioned paying particular attention to the letters pages during their search, largely because of their presumed topicality.

Often there's a little nugget hidden away among the letters that may well be more topical than these (items on the news release).

The fact that the letters were about subjects doctors felt strongly enough about to want to write in to the journal was also an important consideration. Although they did not necessarily report the most important advances in medicine, they covered topics which had sparked interest among doctors and thus might do the same among their readers.

(The letters) aren't major pieces of research, they're just from doctors who get some kind of bee in their bonnet and write off about it. Very often there are all sorts of interesting little facets of medical experience that come up there.

Editorial pieces were also scanned, although one journalist thought those from the *LAN* were made less newsworthy because they were anonymous.

Obviously, selection decisions were affected by what particularly interested individual journalists, although more so for health page writers than news correspondents. Role perceptions would also influence choices and some correspondents were more likely than others to pick up research articles to which a health "message" could be attached.

Daily news specialists have only a short time between receiving the journal on a Thursday lunchtime and the deadline for copy for Friday's morning paper. While the correspondents interviewed were confident that some journal articles so obviously lacked general appeal that they could be easily and quickly disregarded, they admitted occasionally missing things because they had to rush decisions. The quality of their selections tended to be judged against the yardstick of subjects reported by competitor-colleagues. One reporter who was interviewed on a Thursday could not be quite confident that the current issue of the *LAN* contained nothing worth reporting until he had seen the rival newspapers:

This issue's useless - at least, I hope it's useless: I haven't looked at the other papers yet to see if they've got something I haven't.

Several medical correspondents said the night editor might call upon them during the night to provide copy for later editions if other newspapers were carrying important journal-based stories which they had missed.

### 11.8 Selection criteria

The correspondents gave several clues as to factors which made a journal article more likely to be reported upon. They made it clear, however, that their decisions were not always predictable. They insisted that while they could indicate rules of thumb which described their selection criteria, these should not be seen as a strict set of rules.

In keeping with previous suggestions, the journalists thought applied (especially clinical) science more likely to be reported than basic science, and they considered applications and implications important because they appear more relevant to readers. Diseases affecting or worrying large numbers of people (e.g. heart disease, cancers, AIDS) would tend to be given space because of their interest to many readers. On the other hand, a rare and interesting disease might be given space "just because it's rare and interesting". Case histories with a sexual connection (e.g. frostbite of genitalia) or a "quirky and oddball" element (e.g. silicosis developed after sniffing Ajax) are also likely to be reported.

In keeping with the news value of proximity, the origin of the research could be influential in journalists' selection decisions. One journalist commented:



I suppose what is British will take precedence over work that is foreign (and that includes American).

This comment tallied well with some of the press officers' observations that journalists sometimes asked them to identify experts who could comment on the quality of American research, which they tended to regard with suspicion.

The journalists were agreed that, whatever the nature or incidence of a disease, new forms of treatment have potential to generate a story. However, they thought debates among professionals about the merits of different treatment regimes were unlikely to interest readers unless demonstrably better ways of treating a condition were revealed. Several journalists indicated they were aware of some of the basic issues of research validity, noting, for example that they considered sample size when judging the significance of a piece of reported research.

Sometimes you get very short papers in the BMJ. They're tiny and almost anecdotal. They're serious pieces of research work, but the numbers are so small that they're just *starting* to say, "This looks interesting, this looks special". Something noticed in 5 or 10 people is obviously less significant in everyone's book, including ours, than something seen in 330 or 42,000.

The journalists recognised that not everything published in peer reviewed journals was wholly and permanently true. "One-off" articles which ran "counter to the accepted wisdom" were a source of tension because although they often appealed as news stories, they had potential to cause anxiety and confusion. The journalists interviewed were reluctant to contradict medical "knowledge" or opinion about which there was a sizeable consensus without extremely good reason. As one said, "We do have a duty to try and get the consensus".

Controversy was mentioned as a factor contributing to the newsworthiness of a piece of research in several senses. Research into areas which have been the subject of controversy (e.g. cholesterol testing), research with controversial results and research with a controversial ethical standing was thought likely to be reported. On the other hand, research confirming previous research and accepted knowledge would rarely be reported unless it added something new:

A.N. Other report saying that smoking is bad for you would not get into the newspaper.

Correspondents sometimes discussed potential stories with their news editors.

The news editor influences the choices in the sense that you have to be a salesman. You go to him and try to sell him the idea of a story: "There's an article in the *British Journal of Psychiatry* about the prognosis of depression in the elderly". It could be interesting to talk about why the elderly are depressed,

but he might think "Well, we don't want too many stories about old people being depressed, it's a downbeat topic - perhaps not".

As mentioned in 8.5.3, journalists' expectations of the news editors' opinions could also encourage them to exercise self censorship in their choices.

### 11.9 Story development

Once selected, news stories from the *BMJ* and *LAN* usually have to be hastily written on the Thursday afternoon if they are to be printed on the journal embargo date, although *BMJ* stories included on the journal's news release might have been obtained in advance. The amount of time considered necessary and spent on any one article would depend on the subject matter of the story, the media relations information supplied by interested parties, and the working practices of the individual journalists.

The journalists interviewed always had access to the full text of *BMJ* and *LAN* articles and noted that many journal articles contained enough information with which to write a news report so they rarely needed to go elsewhere for extra information. The fact that the articles had been peer reviewed marked them as good, serious science and often allowed correspondents to justify breaking with the traditional journalistic practice of second-sourcing their stories. However, several reasons were identified for contacting either the authors of the journal article, other researchers in the field, or experts with an interest in the context or implications of the research. For news items, it was generally considered unnecessary and impractical to look up previously published material on the subject, but as with most things, the journalists could always predict there would be exceptions: "You can't quite generalise your reactions to dealing with these stories".

#### 11.9.1 Contacting authors of research

Several journalists remarked upon the dry style of journal articles and said they would sometimes talk to the authors to "humanise" the research, or to "bring it to life". Some journalists would also telephone researchers if they needed to clarify particular points about complex research and make sure they had understood the journal article correctly. One always preferred to talk to authors, even before he had read the journal article, because this saved him from struggling to understand technical details. His strategy was to get the researcher to "talk newspaper copy", which he did by approaching interviews cold, letting the researcher know he did not understand the work and asking him/her to explain briefly the research and its implications. In contrast, another journalist from the same paper felt an obligation to read the journal article first, but still considered it



valuable to talk to the researchers to make sure he had understood and got an appropriate angle on the story. These two journalists were aware that their approaches differed, but each regarded the other's methods as legitimate.

Another commonly cited reason for contacting researchers was to obtain quotes, particularly those which could "bring out" the most newsworthy points or those of most interest to the wider public.

Sometimes there are points or implications that you think are important but not made absolutely clear. So very often, I'll ring them up and say "This looks like an interesting paper, it seems to be saying this, could you just talk me through it?"

It was considered good journalistic style to break a story up slightly by writing part of it as direct speech. Journalists would lift phrases from journal articles, put them in quotation marks and attribute them to the author, but usually found spoken explanations more suitable for quotation in newspapers than those written in academic journals. One journalist confessed to telephoning researchers in the hope of getting them to provide stronger quotations and "talk more honestly" about the implications of their work.

In the published research, it's always full of caveats and qualifications, and they always end up saying further research is needed. They never commit themselves to anything on paper. If you ring them up personally, they're sometimes a lot more outspoken and you get much better quotes that way.

The correspondents did not feel obliged to use information they obtained during conversations with authors, especially if it added nothing to what was contained in the original article.

#### 11.9.2 Contacting other experts

The reasons journalists gave for contacting experts other than the scientists who conducted a particular piece of research included: checking that information was sound enough to be published; questioning a claim; satisfying the journalistic need for "objectivity"; getting a reaction; adding an evaluation or interpretation; and extending the story further than other newspapers.

The first two reasons are less likely to apply in the case of research published in the *BMJ* or *LAN*, because of their reputation and the way the peer review system is trusted to have judged papers as good reports. The correspondents interviewed also seemed to feel justified in not seeking out second opinions or opposing viewpoints for stories from these sources unless they were controversial or politically sensitive. They implied that the peer review system provided a licence for them to simply report an interesting study

straight from the journal as long as it was not obviously contentious to lay eyes, although they were aware that the peer review system had flaws and several admitted having been caught out by the Bristol Cancer Help Centre story (see 5.1.1). One reporter acknowledged that adoption of this policy made his task easier, saving the time and effort of identifying and telephoning relevant experts, but pointed out that when space was limited it also made for a clearer story.

If you're only going to get 5 paragraphs in [to the newspaper], you don't really want to start cluttering that with comments from another researcher. It's hard enough to sum up what the one guy has done.

Feature articles for science, health or medical pages are more likely to make use of material from interviews with a wider selection of experts. Sunday papers could also possibly extend stories which had been published elsewhere during the week by seeking comment from additional sources.

One journalist had been dissuaded from seeking extra comment on peer reviewed journal articles because he experienced problems when asking researchers or practitioners to discuss other people's newly published articles. Often they had not received copies or had not read them (news journalists typically made their requests before publication date). Even if they had, the journalist was unsure how to interpret their comments because he feared they might be biased by rivalry or simple dislike for the author. Another journalist noted that sometimes he avoided seeking extra comment because it would weaken the story if someone questioned the claims made.

While most journal articles were regarded as self-contained, journalists noted that for certain types of story extra information was needed. When claims were made about new drugs or treatments, the opinion of experts sceptical of their efficacy would usually be sought. When epidemiological studies identified health risks, representatives of organisations associated with the hazards would usually be given a right to comment.

A report about leukaemia being linked to power stations, which might be in the BMJ or Lancet, is crying out for reaction. We obviously go to the authorities themselves, the nuclear installation people, and if possible the local doctors. There is also invariably these days a pressure group you can go to, or a sufferers group who are very vocal.

In such cases, it may well be that the "reaction" receives more attention than the information in the journal article. In the case of nuclear power stations, "the political fall-out and the comments from the industry in the end get much more space than the original report".



As with authors, not all of the information from interviews with other experts is necessarily used. There is seldom enough space in a news article to include all relevant comments, and journalists are under no obligation to report statements offered.

#### 11.10 Inclusion of information in news stories

The correspondents were not systematically asked which elements of information would be included in a news report about a journal article, but they provided some useful insights into this, particularly when discussing specific articles. Their main concern was that the information in their stories would interest their public, and when reporting research, it would be the findings and implications of a study which most obviously satisfied this requirement. Several correspondents noted the importance of stating, for example, the numbers of people likely to benefit from new treatments, the costs associated with them and when they were likely to be available. This kind of information would often not be detailed in the journal article, and journalists might need to discuss it with the authors or other experts, or work it out for themselves.

Sometimes it gives a story more power to actually say why (a result) is significant. If it will potentially save 900 more lives a year, then it is important to say so - to work it out and say so, even if they (the authors) don't say so.

Several respondents contributed thoughts about the place of information about research methods in their stories, and their opinions varied. One medical correspondent thought methods relatively unimportant in health news stories:

I think the findings and implications are more important. The actual method used might be rather fascinating for a Horizon programme or for our science correspondent, but from my point of view, I would be more interested in what it means to the punter, to the patient.

However, others considered a basic outline of the methods used as important and interesting components of their stories.

I suppose always the most interesting thing is the result - and how they came by it.

Information about methods, particularly sample size, was thought by one correspondent "to give the result maximum credibility". However, there was a consensus that only a limited amount of detail was appropriate. One journalist effectively described a simple formula to describe a clinical trial design which could be picked up easily by journalists with no scientific background:

We would usually try to say something about the methods: so many patients, half of them given a placebo, half of them given the drug. 9 months later,

comparisons made, conclusions reached, significance is... You start to find that there's a way to do it and it's not that hard.

The literature suggests (see 2.4.9) that the background context of research and previous studies on a subject are rarely included in news reports, and they were hardly mentioned by the correspondents interviewed. However, one correspondent was asked to discuss an article he had written (Mihill, 1991) about passive smoking which was considered unusual because it mentioned three previous studies that had also pointed out the harmful effects of breathing other people's smoke.

The first issue of a new journal had carried a report of some American research which found that women who lived with smokers were 50% more likely to get lung cancer than those who lived with non-smokers. This had been reported in the *London Evening Standard*, where it was noticed by a deputy editor of the *GUA* who was not familiar with the evidence about the harmful effects of passive smoking, thought it a good story and told the medical correspondent to write it. The medical correspondent was not keen, because the study was confirming something that had been known for years, but was reluctant to disobey instructions from a deputy editor. He wrote the story, and included mention of three previous studies which had come up with the same conclusions because he wanted to make the point that the American research was not profoundly new. He also felt that readers would be less likely to dismiss the findings if they were told that three previous well-conducted studies had found the same thing. However, he pointed out what he saw as the main problems of including information about previous studies in news reports: readers might not like to think they are being told something over again; and it weakens the story to explain that research findings are not new.

Sometimes it's useful to remind people of previous reports, and other times you rather disguise that and try and present the new report as being blindingly new, because otherwise it won't get into the paper.

#### 11.10.1 Acknowledgements and attributions

Journalists were asked their opinions and policies regarding the attribution of information derived from journal articles. A recurrent theme when discussing the inclusion of the names of authors, funding organisations and journals was the problem of limited space. Journalists had to judge how the limited space available to them could best be used, and were conscious that their judgements often annoyed researchers, funders or journal organisations when they were not named in print.



Journalists were generally keen to name the *BMJ* or *LAN* when they reported research published in them, to acknowledge the (prestigious) source of their information and to give credibility to the research. The only occasions on which the journals were not acknowledged were when news articles were very short or when they were cut by sub-editors, who presumably thought the name of an author, research institution or funding body sufficed, and made their own decisions about prioritising information.

Authors would often be named in connection with quotations, but correspondents were unanimous that it was inappropriate to name every author of multi-authored papers. One noted the use of devices such as "the researchers", "the Newcastle team" to avoid repeated mentions of individual names. Researchers would commonly be "rooted where they work", which might mean naming a hospital, university department, or research institution, and might reveal the source of funding for the research.

The journalists were aware that funders were generally keen to be mentioned when research was published, but from their point of view, the names of funding organisations were usually less important than those of researchers, research institutions and journals: they did not serve as well to "place" the research, and did not necessarily carry authority. Some journalists were keen to "help" respected charities with publicity, and would tend to try and give them a mention when reporting research in which they had been involved. Others were averse to name even charitable funding organisations if this was not necessary to the story. Research funders were only considered a necessary part of the story if their motives were thought to limit the objectivity of the research.

If there's a suggestion that the funder is calling the tune for the findings, then certainly you mention it. But on the assumption that it's neutral, that it's e.g. a cancer charity that's funding the work, then I wouldn't fall over backwards to give them the credits.

On this basis, the tobacco industry was more likely to be cited as a funder of research than some medical research charities. This is not to say that journalists treat the tobacco industry more kindly than research charities. Presumably the context in which their name was mentioned would be unfavourable (the quality of their work being called into question), and it is likely their research would have a bigger threshold level to cross before some correspondents reported it at all.

#### 11.11 BMJ and Lancet as sources of reference

Several journalists kept back copies of the *BMJ* and *LAN* for reference, while others relied on getting copies from medical libraries in London as necessary. Old articles were

used for (rare) investigative pieces and features more commonly than as background for news articles which, as discussed above, tend not to mention previous research.

Journalists identified relevant articles from memory, or occasionally via the indexes. Sometimes they were alerted to them by experts they consulted for information. The use of online or CD-ROM bibliographic databases was described by one journalist as "overkill" for most news stories, which typically required just one or two relevant pieces of information rather than a comprehensive literature search.

#### 11.12 Journal articles and Sunday papers

The current issues of the *BMJ* and *LAN* were rarely used by the Sunday journalist interviewed "because the most interesting articles in them do tend to be picked up by daily papers". She thought stories from the journals could sometimes be run if they were further developed by contacts with a variety of experts, but if she made an effort to interview people, she still risked seeing her story run in a Saturday newspaper and thus rendered dead. However, she could sometimes make use of articles from the previous week's journals.

#### 11.13 Journal articles and health pages

Several of the quality newspapers include on their health pages a number of very short articles. These are often based on articles from the *BMJ*, *LAN* or other journals. There is less pressure for articles on health pages to be absolutely current, and given the timing of health page production, it tends to be "last week's" articles which are reported. Feature articles sometimes make use of journal articles, but are apparently rarely triggered by the most recent ones. Indeed, a mention of a journal article in a feature article does not necessarily mean that it was the source of an idea. One journalist had been working on a feature article for quite a while before an expert she contacted alerted her to a relevant editorial in the *LAN*. If a subject became topical, journalists might make a mental connection with a journal article they had read previously, but again, very little use was apparently made of bibliographic sources and services.

The one medical columnist interviewed made regular use of *BMJ* and *LAN* articles, although rather than reporting these "straight", he tended to develop ideas from these and follow up references and arguments in more detail than the health page writers.



#### 11.14 Embargoes and the Ingelfinger rule

The correspondents generally respected embargoes set by journals or other organisations. The attempt to give them more time to write a story was appreciated, although not all made that much use of it.

I tend to say "That's embargoed until the day after tomorrow, so I'll look at it tomorrow. I'm not going to put work into it today."

Different individual working practices could obviously thus affect the time spent on a story and the chances of a journalist managing to contact an expert in the time available. As mentioned previously, one journalist had been discouraged from asking experts to comment on other people's newly published research because the embargo system meant that at the time when the journalist wanted to write the story, normal subscribers often had not received their copy and thus had not had a chance to read the article in question.

The journalists were fairly sure that medical researchers would not want to discuss their work with them if it was about to be published for fear of falling foul of the Ingelfinger rule. This seemed to be accepted as an inevitable constraint.

If their results appear in the lay press, they will not get them into a learned journal. So news wise, whereas 20 years ago they'd give you a hint, they won't do it any more. I suppose research money is so tight, they've GOT to get published in the right places... It's a shame from our point of view, because it's nice to get some early results.

Journalists' perceptions of the power and scope of the Ingelfinger rule were thus similar to those of press officers, although the journals did not see run of the mill discussions between authors and journalists as such a problem (see 10.10).

#### 11.15 Reporting research at different stages

Short pieces had been run on several health pages prior to the interviews which mentioned that new research projects were seeking volunteers. The journalists did not discuss the research design issues associated with such recruiting procedures (their effects on validity etc.). However, some took precautions before running the pieces such as checking the affiliation and credentials of researchers not known to them, and directing responses via the newspaper. One journalist commented that recruitment was usually done through doctors, but when organisations approached her *wanting* the information in press, she would consider their requests favourably. There was a feeling that with a population that was becoming more and more articulate about health, an open approach was best: "If it's a useful thing, you tell them!"

The early stages of a particular research project were rarely of interest to news journalists. As one commented, "there's nothing to write about because they haven't got any results!" A feature writer might be more tempted:

Sometimes at the beginning of [some research] you can say what's going on and why it's happening. From a feature point of view, I think that's perfectly valid and interesting. It's looking to the future and saying "This is where it may be happening".

The journalists also had a sense that people should know what is going on, and planned or current research might be reported, especially if there were ethical issues surrounding it, or if the problem being investigated was otherwise topical. The somewhat controversial trials of Tamoxifen as a prophylactic against breast cancer were cited by several journalists in this regard.

Once a research project had got beyond the early stages, the journalists thought it unlikely to be reported until it had been published in a peer reviewed journal. Whatever results there were would tend to be very tentative and they had a strong impression that researchers were extremely unwilling to discuss their work with them before then, and presumed this was because of journal publication policies. However, completed research projects that constituted early stages in the whole research effort into a particular problem or therapy were often both published and newsworthy. On the whole, the journalists seemed to be aware of the potential problems of reporting this.

I'm very conscious that if you're talking about a new treatment that's only in animal trials or first stage human trials, or which isn't yet out of a test tube, that although it's potentially very exciting, you have a duty to let the reader realise that this is a long way off.

The journalists' approaches to preliminary research, when they recognised it, were apparently very responsible, although they did note that there was a fine line between expressing an appropriate amount of caution and killing a story completely (see 11.16).

#### 11.15.1 Research presented at conferences

Journalists gave the impression that while some conferences were rich sources of stories, others were less so - and it was sometimes difficult to tell how useful a particular one would be until they got there. News articles would tend to be based on the information presented in single papers because the overall conference and its atmosphere could not be described adequately.

A conference of medical experts is almost equivalent to a visit to the theatre. Hearing expertise being communicated, 40 minutes of medicine, can be enthralling. You can't do it justice in journalism: it doesn't work as an article.



The journalists could propose to their editors conferences which they thought would be useful (and confessed their proposals were sometimes influenced by the location as well as the subject of the conference and advertised speakers). Time and travel costs were obviously major considerations, and some journalists who were part of small teams found it difficult to get away.

The usefulness of a conference could not always be predicted by its main subject as research in different subjects would be exciting at different times. One correspondent had been disappointed by a recent AIDS conference, which he found "familiar, predictable and flat". In contrast, a cardiology conference had proved quite fruitful in news terms:

Cardiology means clot-buster drugs, transplant and surgical advances, the connection between diet/lifestyle and disease.... - things that people want to hear about.

Partly because of the time scale over which the interviews were spread, no single medical conference was discussed with all the correspondents, which made comparisons of their views about the usefulness of conferences in terms of providing contacts, facilitating meetings with experts, and creating opportunities to discuss work with competitor-colleagues difficult. In general terms, however, the journalists agreed that these were likely benefits of conferences.

#### 11.16 Problems in reporting research

Some of the constraints of news reporting on medicine were discussed in section 8.10. The problems of reporting on medical research in particular will be summarised here.

The time pressures under which journalists worked made it difficult to cover all the likely sources of suitable stories. This was one reason for their concentration on a few prestigious journals. They were forced to make selection decisions quickly, and often lacked time to read journal articles thoroughly or to check facts and sources. A lack of medical or scientific training could make it difficult for journalists to read and understand journal articles and to evaluate claims. Some journalists mentioned statistical illiteracy as particularly problematic, because so many medical stories were based on statistical analyses. Clinical trials, epidemiological studies and stories about the spread of AIDS all depended on numbers.

Several journalists recognised that, because they lacked scientific or medical training, they were to some extent vulnerable to their sources. Not only was it difficult for them to evaluate the quality of a piece of research or the strength of particular claims, but it

was also difficult for them to assess the credibility of people or organisations who presented themselves as experts. The common solution to this, in the case of journal based stories as well as others, was to stick to "the weight of medical opinion" and organisational sources with whom they were familiar and whom they trusted. The journalists spoken to were quite conservative in their adherence to mainstream orthodox medicine, even though research results which seemed to contradict accepted norms could obviously be newsworthy.

Strong tensions were often experienced when trying to report medical research responsibly, as journalistic values strained against scientific caution. Temptations included: using anecdotes, which make good copy but not good science; going for the maverick result which disagrees with the consensus; and not asking questions which might weaken stories that are "too good to check". There was always the difficulty that careful reporting might be seen as so dull that it warranted the spike, even on quality newspapers:

I'm very conscious of trying not to overstate something. But at the same time I realise I have a duty to get the thing published, and it won't be if it's so dull that I've taken any kind of heat out of it that was there. So a balance has to be struck.

Correspondents could experience difficulties with their editors wanting to take some of the caution out of their articles. One described a (somewhat simplified) negotiation process with a news editor who was presented with a journal article as a potential story:

The news editor will say: "That sounds like a terrific story! This is terrible - all those poor people out there are going to go blind". That's the first under-informed reaction to it. He hasn't read through the whole article. So you, sometimes to his irritation, have to say: "Well, it's not quite as bad as that. It does say on paragraph 28 that the risk is quite low"... To which he may say: "Well, that rather weakens the story - do we need to have it in?"

Thus not only do the correspondents need to recognise the limitations and necessary caution comments to a story, they need to be able to persuade their editors to carry them, and to persuade sub-editors not to be tempted to cut the bits that weaken a story if they need to shorten the article.

### 11.17 Summary

The journalists' comments about their decision making processes and working practices were based on their own perceptions of what they do, and would not necessarily be corroborated by a more objective observation study. Nonetheless, the



information gained from the interviews provided useful insights into the information flows affecting media coverage of medical research which would merit further exploration. The following points summarise some of the most interesting insights into news journalists' reporting of medical research.

1. The medical journalists working for national quality newspapers regularly scan each new issue of the *BMJ* and *LAN* for potential stories. The two American prestigious general medical journals, *New England Journal of Medicine* and *Journal of the American Medical Association*, along with the *Journal of the Royal College of Physicians*, were also regularly scanned.
2. The journalists relied on the prestigious journals' peer review and editorial selection processes to filter out "cranky" or unreliable research, and assumed that anything printed in the journals which they thought newsworthy was "safe" to write about. They did not consider it necessary to second-source information derived from the journals unless it was about a politically sensitive or controversial topic (and medical controversy was usually flagged up by the journal itself). The prestige of the journals was a strong incentive for journalists to acknowledge them: their titles lent authority to news stories.
3. News releases from the *BMJ* might whet a journalist's appetite for a forthcoming article, and those from the *LAN* were used to make a quick appraisal of the articles summarised on them. However, journalists would usually consider the entire contents of the two full journal issues before deciding which articles (if any) to report.
4. The journalists confirmed that they regularly received, appreciated and made use of information on news releases about the latest journal articles from research funding organisations such as BHF, CRC, ICRF and MRC.
5. When trying to identify potential news stories from a journal issue, journalists tend to look for "eminent" authors and "key" diseases on the contents pages, and then to scan through abstracts looking for interesting conclusions. The letters pages were often carefully scanned as a potential source of topical items of interest and indicators of issues causing concern among the medical profession.
6. The following features were reported as factors which would increase the likelihood of a journal article being reported: applied science with obvious applications or implications; common and fatal diseases; rare but interesting or "quirky" diseases; cases or diseases with a sexual connection; new, improved treatments; controversial subject matter or results; and British authorship.

7. Although the journalists were aware of some of the indicators of research quality (sample size and composition) in terms of reliability and validity, they realised their ability to evaluate (and in some cases understand) journal articles as published was limited. Their tactics for obtaining assistance in understanding varied, but included making use of news releases and press conferences, and contacting authors to ask for simple explanations.

8. Tight deadlines and restricted word lengths limited the possibility and usefulness of consulting further sources of information and comment in order to develop a news article. Journalists were also discouraged from consulting extra sources of comment by: the need to keep stories simple and clear; the fact that potential expert sources have often not seen the article being reported; their own limited ability to discern whether negative comments are fair or whether they are born out of rivalry and prejudice. News journalists would rarely look up previous research on a topic they were reporting. They would sometimes consult authors, and would approach other "experts" if the topic or the research was controversial or in some way accusatory of a product or practice. In the latter case, a representative of the accused would be offered a chance to make a defence.

9. The journalists were aware of the tentative nature of many research articles, particularly reports of early work on a problem or early tests on a new treatment. They strove to report these responsibly, but found the line between expressing appropriate caution and killing a story very fine.



## 12 The evidence of newspaper content

### 12.1 Brief resume of sample and methods

Friday issues of the *Daily Telegraph* (TEL), *Guardian* (GUA), *Independent* (IND) and *Times* (TIM) newspapers were scanned to identify news articles derived from *British Medical Journal* (BMJ) or *Lancet* (LAN) articles and printed on the journal embargo date. These newspaper articles were content analysed and compared with the relevant journal articles and any news releases associated with these. The total sample covered 18 embargo dates in all: 8 Fridays from September 6th to October 25th 1991 inclusive and 10 Fridays from May 8th to July 10th 1992 inclusive. Full details of the methodology are given in section 6.7.

### 12.2 Numbers of newspaper articles

A total of 90 news articles derived from the *BMJ* or *LAN* were identified on the 18 embargo dates studied, giving a sample mean of 1.25 articles per newspaper per Friday<sup>1</sup>. The news articles are listed in Appendix 10, and the journal articles on which they were based in Appendix 11. Table 12.1 overleaf shows the total number of articles found in each newspaper and the average number per embargo date.

The *IND* included the most (32) articles reporting on the latest *BMJ* and *LAN* issues, averaging 1.78 per embargo date. The *TIM* included less than half that number (15), averaging 0.83 per embargo date. The difference between the total numbers of articles found in each newspaper was significant ( $\chi^2 = 9.54$ ,  $df=3$ ,  $P<0.025$ ). The *TIM* reported slightly more *LAN* than *BMJ* articles, and the *TEL* showed a preference for *BMJ* articles. In all, slightly more *BMJ* than *LAN* articles were reported, but the difference was not significant. The most *BMJ* or *LAN* based news articles found in a single newspaper on one day was four<sup>2</sup>, three of which appeared in the same column. Three *BMJ* or *LAN* based news articles were found in single newspaper issues on seven occasions, three in the *GUA* and four in the *IND*.

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1. One *BMJ* article was discussed on its embargo date in the *GUA* Commentary section, but this was not included in the study.

2. The *TEL* of 29/5/92 picked up stories on: numbers of hospital admissions due to suicide attempts (61); discovery of a genetic link for a type of diabetes (62); community care for psychiatric patients (63); and an association between pickled vegetables and cancer (64).



Table 12.1 Number of newspaper articles derived from *BMJ* and *LAN* articles on embargo dates, and average numbers of newspaper articles per Friday.

|     | BMJ | LAN | Total | Average |
|-----|-----|-----|-------|---------|
| GUA | 10  | 9   | 19    | 1.06    |
| IND | 16  | 16  | 32    | 1.78    |
| TEL | 15  | 9   | 24    | 1.33    |
| TIM | 6   | 9   | 15    | 0.83    |
|     | 47  | 43  | 90    | 1.25    |

Figures 12.1 and 12.2 show how the number of newspaper articles per embargo date fluctuated over the two sample periods. The total number of journal derived news articles found on any one day ranged from 0 to 8.

Figure 12.1 Number of news articles per embargo date: sample A.

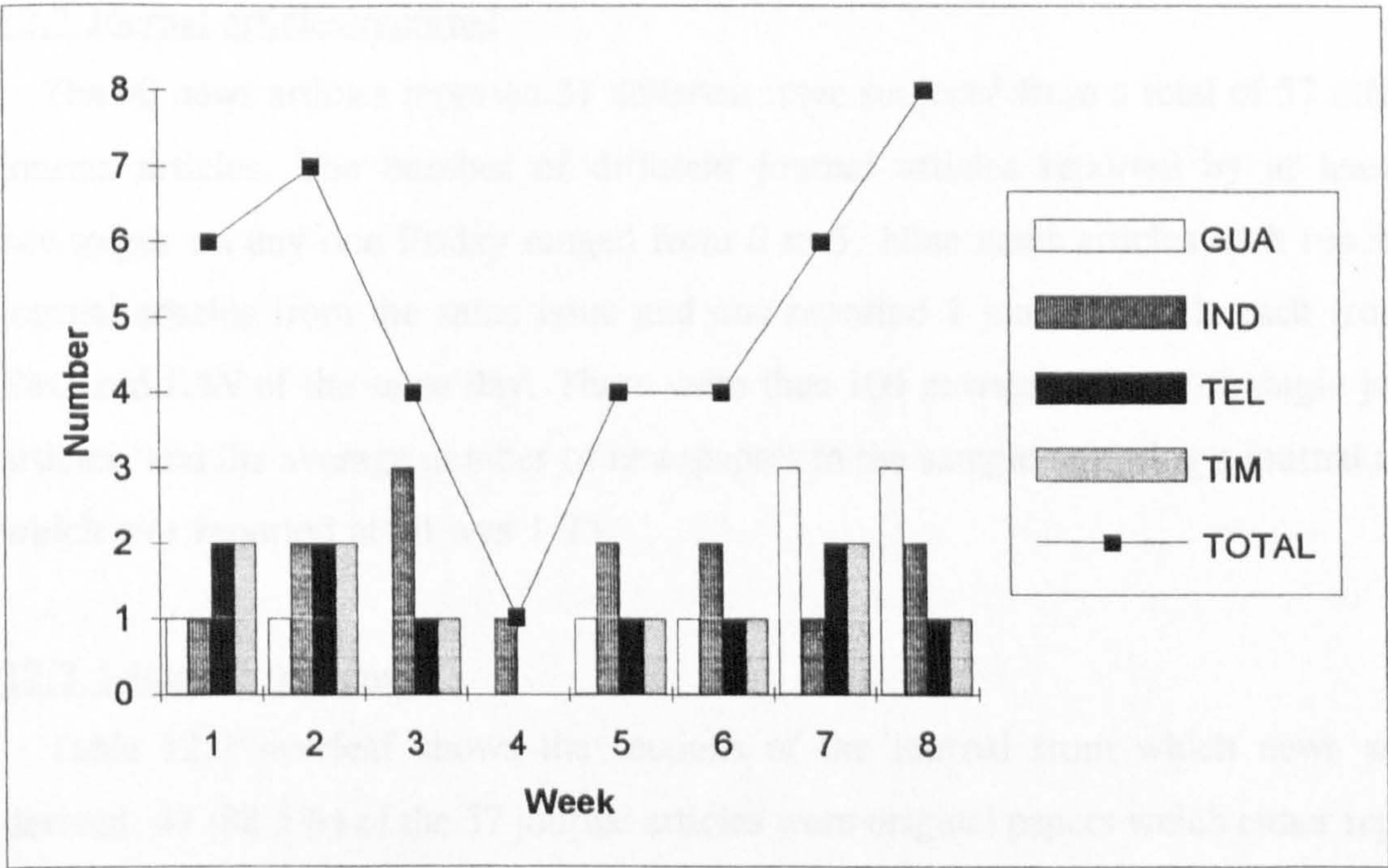
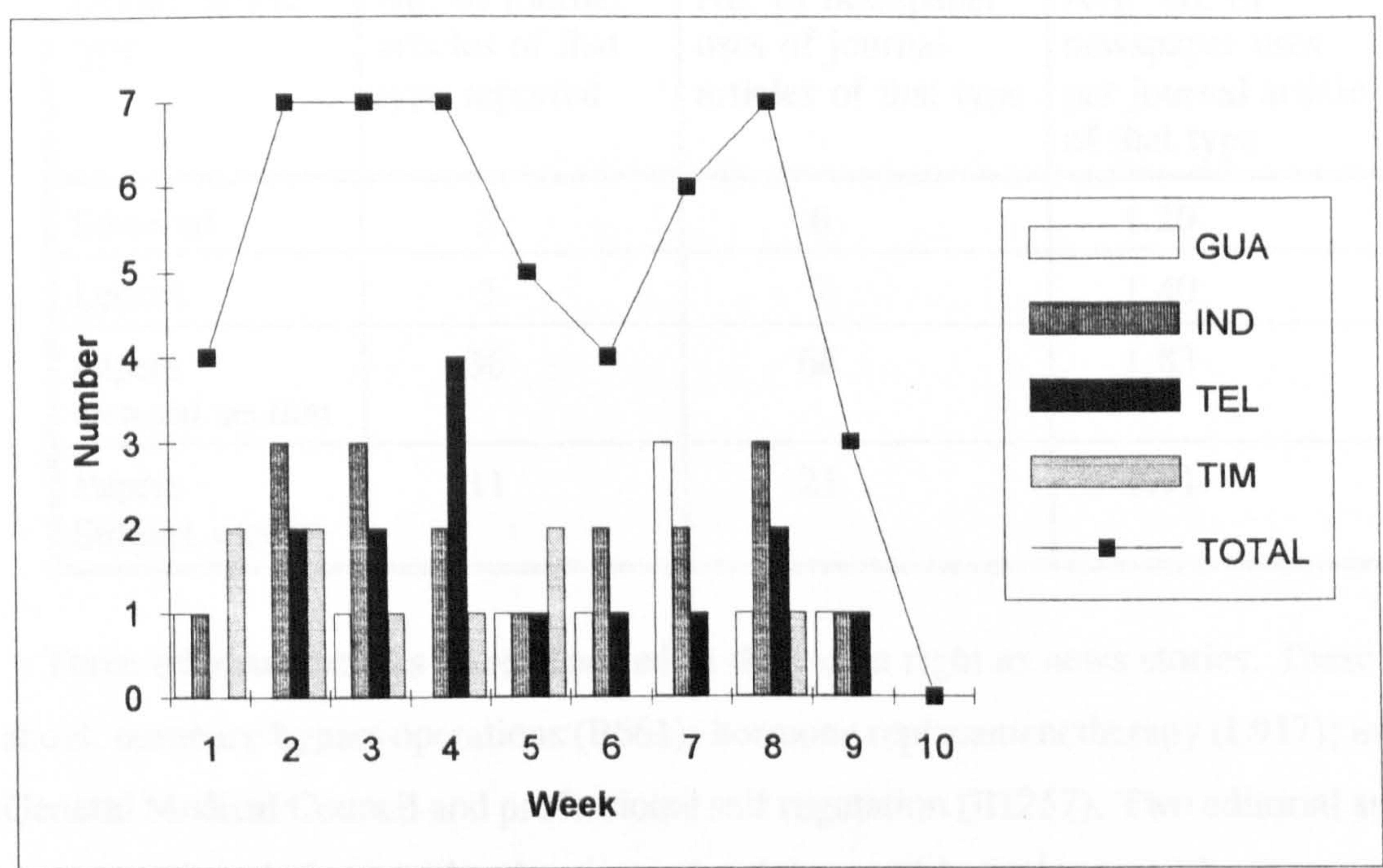




Figure 12.2 Number of news articles per embargo date: sample B.



12.3 Journal articles reported

The 90 news articles reported 51 different issue subjects<sup>3</sup> from a total of 57 different journal articles. The number of different journal articles reported by at least one newspaper on any one Friday ranged from 0 to 5. Nine news articles each reported 2 journal articles from the same issue and one reported 1 journal article each from the *BMJ* and *LAN* of the same day. There were thus 100 newspaper uses of single journal articles, and the average number of newspapers in the sample reporting a journal article which was reported at all was 1.75.

12.3.1 Journal sections

Table 12.2 overleaf shows the sections of the journal from which news articles derived. 47 (82.5%) of the 57 journal articles were original papers which either reported research or were substantial review papers or hypotheses. 36 of these were published in general sections and 11 in special subject sections. 5 (8.8%) of the journal articles reported were editorials and 5 (8.8%) were letters to the editor.

Original papers were more likely to be reported by more than one newspaper than letters and editorials. Among journal articles reported at all, original papers were used an average of 1.85 times, compared with 1.30 for editorials and letters.

3. See section 6.7.3 for an explanation of this term.



Table 12.2 Newspaper use of different journal sections for news stories

| Journal article type     | No. of journal articles of that type reported | No. of newspaper uses of journal articles of that type | Avg. no. of newspaper uses per journal article of that type |
|--------------------------|---|--|---|
| Editorial                | 5   | 6  | 1.20  |
| Letters                  | 5   | 7  | 1.40  |
| Papers - General section | 36  | 66   | 1.83  |
| Papers - Subject section | 11  | 21   | 1.91  |

Three editorial articles were reported in their own right as news stories. These were about: coronary bypass operations (B661); hormone replacement therapy (L917); and the General Medical Council and professional self regulation (B1257). Two editorial articles were mentioned along with other journal articles, and in both cases, the news articles paid more attention to the editorial. An article (21) about injectable contraceptives devoted 7 sentences to an editorial (L856) then concluded with one sentence summing up a large clinical trial reported in the same journal issue (L833). Another article (72) about sexual relationships between doctors and patients took 6 sentences to cover information from the editorial (B1519) and just 2 to sum up the research paper on the subject (B1531). It could be argued that editorials are attractive to lay journalists because they concentrate on controversies, implications, and the journalistically "interesting" aspects of subjects, and are usually written in a less technical style than research papers. However, they are not always compelling: several news articles reporting research papers which were also commented on by editorial articles apparently made no use of the available editorial material.

Despite one journalist's comment that *LAN* editorials' anonymity made them difficult to use (see 11.7), 2 of the editorials reported were from the *LAN*. The journalists reporting these seemed untroubled by the lack of a named author, and used phrases such as, "according to the *Lancet*, the medical journal" and "the *Lancet* says" to place and confer credibility on statements. They effectively treated the journal itself as an authorised knower.

The letters which were picked up by newspaper journalists were not major pieces of research, but all had newsworthy elements. Their subjects were: the sources of infection



of a group of HIV positive women (B1060); a case of transmission of HIV during oral sex (L830); advertising of baby milk in a hospital with a policy of promoting breast feeding (B1058); a report of high levels of aluminium found in fruit juices (L1236); and a case of attempted suicide-by-exhaust-fumes which was foiled because a car had been fitted with a catalytic converter (B1376). The first two contained the usual pot-pourri of newsworthy factors associated with AIDS stories, the second two were consumer "scandals", and the last was a novel, ironically humorous story.

The papers from general sections reported at least once came from: *BMJ* Papers (22), *LAN* Original Articles (13) and *LAN* Short Reports (1). Just one of the reported articles came from a *BMJ* subject section, Education & Debate. The *LAN* subject section articles reported were from Clinical Practice (3), Public Health (2), Biosphere (1), Epidemiology (1), Hypothesis (1), Screening (1) and Viewpoint (1) sections.

The characteristics of the "subject sections" in the two journals differ. The *BMJ* Education & Debate section includes medico-political comment, discussion of health policy and professional update type articles (e.g. "ABC" series for vascular diseases and colorectal diseases), while the various *LAN* subject sections include more articles based on original research, possibly explaining their greater uptake by news journalists.

Tables 12.3 and 12.4 show the proportions of all *BMJ* and *LAN* articles from each section which were reported by newspapers during the sample period.

Table 12.3 Proportion of *BMJ* articles reported by quality newspapers

| Journal section    | No. of articles in journal section | No. and % of articles reported by at least one newspaper |
|--------------------|------------------------------------|--|
| Papers             | 119                                | 22 (18.5%)   |
| General Practice   | 28                                 | 0 ( 0.0%)  |
| Education & Debate | 84                                 | 1 ( 1.2%)  |
| Audit in Practice  | 4                                  | 0 ( 0.0%)  |
| Editorials         | 99                                 | 3 ( 3.0%)  |
| Letters            | 390                                | 3 ( 0.8%)  |

The number of letters shown in the tables actually refers to the number of headings under which letters were printed, which is less than the number of individual letters published. The proportion of letters reported as given in the tables is thus an overestimate.

Table 12.4 Proportion of *LAN* articles reported by quality newspapers

| Journal section        | No. of articles in journal section | No. and % of articles reported by at least one newspaper |
|------------------------|------------------------------------|--|
| Original articles      | 72                                 | 13 (18.1%)   |
| Short reports          | 35                                 | 1 ( 2.9%)  |
| Clinical practice      | 27                                 | 3 (11.1%)  |
| Public health          | 7                                  | 2 (28.6%)  |
| Other subject sections | 39                                 | 5 (12.8%)  |
| Editorials             | 86                                 | 2 ( 2.3%)  |
| Letters                | 564                                | 2 ( 0.4%)  |

In both journals, it was primarily the sections which included research articles which were used by journalists. Just over 18% of major papers in general sections were picked up, but less than 5% of editorials and less than 1% of letters. Relatively few professional update type articles were reported. Sections such as *BMJ* News and Medicine and the Media, and *LAN* Bookshelf and News and Comment which were not reported at all by the newspapers have not been included in the tables.

### 12.3.2 Journal article genres

Table 12.5 overleaf shows the genres of journal articles reported. Aetiological or epidemiological studies were most frequently used (45.6% of journal articles reported), followed by evaluation of intervention (22.8%) and review/viewpoint/hypothesis (17.5%). Aetiological/epidemiological studies and intervention evaluations which were reported at all were more likely than other genres to appear in more than one newspaper.

The genres as defined in section 6.7.5 were quite broad. A re-examination of the 26 journal articles in the category for aetiological and epidemiological studies identified four sub-categories of types of factors affecting health: lifestyle (7 articles); environmental (7, including 3 about occupational health risks); iatrogenic (5); and genetic or biological (7, including 2 about intra-uterine and neonatal conditions). The group of review, viewpoint and hypothesis articles was also heterogeneous. Two of the articles were fairly comprehensive reviews of a subject which discussed the quality of evidence provided by a range of studies, and two further articles developed an argument at some length. Three articles were editorials expressing an opinion (obviously backed up with some supporting evidence) about particular medical treatments, and two editorials and a letter expressed



opinions about aspects of professional behaviour and health service management. Future, larger studies could usefully divide this group according to the comprehensiveness of the review and the subject under discussion.

Journal sections and article genres are to some extent associated. 2 of the 3 reported case studies appeared in letters sections and 5 of the 10 reported review or viewpoint type articles were editorials. It is not clear whether it is the type of research or section of publication that most influences selection. Table 12.6 overleaf shows the number of journal articles from major research sections classified in each genre, together with the proportion reported at least once and the average number of newspaper uses. It seems that aetiological and epidemiological studies have the most appeal to the quality papers, both in terms of the proportion of them selected and the average number of newspaper uses of journal articles reported at all. They are closely followed in popularity by evaluations of intervention, and the difference in proportions reported between these two is not significant ( $\chi^2 = 1.36$ ,  $df = 1$ ).

Table 12.5 The genres of journal articles reported

| Genre                                 | No. of journal articles reported. | No. of newspaper uses | Avg. no. of newspaper uses |
|---------------------------------------|-----------------------------------|-----------------------|----------------------------|
| Audit of medical practice             | 5                                 | 8                     | 1.60                       |
| Case report                           | 3                                 | 4                     | 1.33                       |
| Evaluation of intervention            | 13                                | 25                    | 1.92                       |
| Aetiological or epidemiological study | 26                                | 49                    | 1.88                       |
| Review, viewpoint or hypothesis       | 10                                | 14                    | 1.40                       |

### 12.3.3 Country of origin of research

Table 12.7 overleaf shows the distribution of journal articles of British and foreign origin among those reported by newspapers. Most of the 57 journal articles reported had at least one author with a British institutional affiliation. The two other countries represented by more than one reported journal article were USA (7) and Switzerland (3). The average number of news reports per journal article was higher for articles with at least some British affiliation.

Table 12.6 The proportion of major research papers of each genre reported

| Genre                                 | Journal section | No. of journal articles in genre | No. and % of journal articles reported | Average no. of newspaper uses |
|---------------------------------------|-----------------|----------------------------------|--|-------------------------------|
| Audit of medical practice             | BMJ Papers      | 18                               | 4 (22.2%)                              | 1.50                          |
|                                       | LAN OA or SR    | 1                                | 0 ( 0.0%)                              | 0.00                          |
|                                       | LAN Subject     | 5                                | 1 (20.0%)                              | 2.00                          |
| Case report                           | BMJ Papers      | 5                                | 0 ( 0.0%)                              | 0.00                          |
|                                       | LAN OA or SR    | 11                               | 0 ( 0.0%)                              | 0.00                          |
|                                       | LAN Subject     | 1                                | 1(100.0%)                              | 1.00                          |
| Evaluation of intervention            | BMJ Papers      | 36                               | 6 (16.7%)                              | 1.83                          |
|                                       | LAN OA or SR    | 40                               | 4 (10.0%)                              | 2.25                          |
|                                       | LAN Subject     | 19                               | 3 (15.8%)                              | 1.67                          |
| Aetiological or epidemiological study | BMJ Papers      | 52                               | 11 (21.2%)                             | 2.18                          |
|                                       | LAN OA or SR    | 55                               | 10 (18.2%)                             | 1.40                          |
|                                       | LAN Subject     | 7                                | 3 (42.9%)                              | 2.67                          |
| Review, viewpoint or hypothesis       | BMJ Papers      | 8                                | 1 (12.5%)                              | 2.00                          |
|                                       | LAN OA or SR    | 0                                | 0 ( 0.0%)                              | 0.00                          |
|                                       | LAN Subject     | 41                               | 2 ( 4.9%)                              | 1.50                          |

Table 12.7 The country of origin of reported journal articles

| Country of origin | No. of journal articles reported | No. of news article mentions | Avg. no. of newspaper uses |
|-------------------|----------------------------------|------------------------------|----------------------------|
| Britain only      | 38                               | 66                           | 1.74                       |
| Britain + other   | 7                                | 17                           | 2.43                       |
| Foreign           | 12                               | 17                           | 1.42                       |

Table 12.8 overleaf shows the numbers and proportions of journal articles with different national origins reported from *BMJ* Papers, *LAN* Original Articles and Short Reports and *LAN* special subject sections. In total, 20.0% of all major research papers with only British affiliated authors and 25.9% with both British and foreign authors were reported, compared with just 8.7% of papers with no British authors. The differences



between the proportions of British and foreign articles reported were significant ( $\chi^2 = 7.00$  df = 2  $p < 0.05$ )<sup>4</sup>.

Table 12.8 The country of origin of major research papers

| Country of affiliation | BMJ Papers       |            |        | LAN general sections |            |        | LAN subject sections |            |        |
|------------------------|------------------|------------|--------|----------------------|------------|--------|----------------------|------------|--------|
|                        | Total in section | Total used | % used | Total in section     | Total used | % used | Total in section     | Total used | % used |
| Britain only           | 79               | 16         | 20.2   | 28                   | 6          | 21.4   | 28                   | 5          | 17.8   |
| Britain + other        | 8                | 2          | 25.0   | 11                   | 2          | 18.2   | 8                    | 3          | 37.5   |
| Foreign                | 32               | 4          | 12.5   | 68                   | 6          | 8.8    | 37                   | 2          | 5.4    |

It is worth noting that the subjects of the 12 foreign authored articles which were reported were obviously all relevant to British readers. 7 were about either cancer, heart disease, or stroke, and the others involved birth defects, longevity, chronic fatigue syndrome, arthritis and sexual contact between doctors and patients. In keeping with traditional news values of cultural proximity and comments made by journalists, journal articles about tropical parasitic diseases, pneumonia mortality rates among Nepalese children, Indian medical journals, and the problems of diabetes in Africa were not picked up as news stories.

12.4 Numbers of subjects reported by more than one newspaper

During the study period, five issue-subjects<sup>5</sup> were reported by all four newspapers on embargo date, four were reported by three of them, sixteen by two and twenty six by only one. Table 12.9 shows the issue-subjects covered by all four newspapers. The articles all tallied well with the journalists' predictions or rules of thumb for selection as discussed in section 11.8. Three concerned diseases affecting large numbers of people

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4. Articles with authors affiliated to both British and foreign institutions were excluded from the calculation because their expected numbers (if articles from different origins were reported in equal proportions) were too small.

5. On 05/06/92, both the BMJ and the Lancet published research papers investigating the success rates of assisted conception techniques (B1465 and L1390). All newspaper articles reporting either or both of these studies were regarded as being based on the same issue subject.

(diabetes and heart disease), and the other two, about smoking and infertility, were relevant to many people’s lives. Infertility also has, from the journalistic point of view, the merit of having a sexual connection. The controversy over human insulin was topical at the time, with a law suit planned, and the stories about heart attacks and infertility both contained a "new medical hope" angle.

Table 12.9 Issue-subjects covered by all four newspapers.

| Code               | Subject  |
|--------------------|--|
| B617<br>B622       | Comparisons of human and animal insulin. Consideration of claims that patients taking human insulin have more problems with hypoglycaemia.   |
| B1019              | Association between impaired growth in the womb and non-insulin dependent diabetes in later life.  |
| L1267              | Estimates and predictions of numbers of tobacco-related deaths in developed countries.   |
| L1553              | LIMIT-2 clinical trial showing significant beneficial effect of intravenous magnesium sulphate for heart attack victims.   |
| B1465<br><br>L1390 | Success rates of various assisted conception techniques for infertile couples, distinguishing between women under and over 40 (Bristol University)<br>Success rates of in vitro fertilisation for women of different ages (Hallam Medical Centre and King’s College) |

The issue-subjects reported by only one newspaper included: a screening test to identify those pregnant women most likely to have babies with Down’s syndrome (B551); a case of leprosy reported in a nursing home (L739); a possible cause of myalgic encephalitis (ME) (L707); a hospital with a policy of breast feeding which carried advertising for baby milk (B1058); a study suggesting that farm workers are at increased risk of osteoarthritis (B1269); and a link between pickled vegetables and oesophageal cancer (L1314). These obviously have news potential, but when compared with the subjects which were reported by all four newspapers, they were less dramatic and none of them would appear to affect as many of the population.

**12.5 Inclusion of information in newspaper articles**

**12.5.1 Mention of journal title**

Of the 90 news articles found, 11 (12.2%) did not mention the journal title, and a further 22 (36.7% in all) gave no indication of the issue date ("today", "this week in", "the current", etc.). The former omission is perhaps most important because it creates



obstacles for readers wishing to obtain further information by following up sources. It also annoys journal representatives and makes content analyses more difficult.

The journalists' suggestions that such omissions could be due to sub-editors' text shortening activities (see 11.10.1) was supported by the fact that 9 of the 11 news articles which did not mention the journal title were based on information from the longer-titled *British Medical Journal*. The omission might also suggest that a journalist had obtained his/her information from a source other than the journal. Alternative sources of information (press releases, press conferences and reports not produced or organised by journal staff) were known to have been available to the media for 4 of the 11 newspaper articles which did not name the journal.

### 12.5.2 Authors and experts

38 (42.2%) of the news articles named the first author (although not necessarily as such) of at least one of the journal articles they reported, and 45 (50%) named at least one author. One news article which reported an anonymous *LAN* editorial could not name an author. In all, 40 authors were named in a total of 61 newspaper article-author mentions. 31 news articles named one author, 12 named two, and 2 named three. 5 of the 7 news articles which named only an author(s) other than the first author named the person to whom the journal advised correspondence should be addressed (4 of these were professors). The other 2 named the person who appeared from the designations in the journal to be the most senior.

7 of the 40 named authors (17.5%) had a foreign affiliation. These accounted for 13 of the 61 (21.3%) mentions. There are grounds for suspecting that authors with a foreign affiliation are less likely to be named than their British counterparts if their journal articles are reported because 19 of the 57 journal articles (33.3%) included at least one author with a non-British affiliation (see Table 12.7). From a journalist's point of view, authors with foreign affiliations are probably less easy to contact than those based in Britain, they may be difficult to interview or quote if their English is not fluent, and are probably less familiar to a British audience. Journalists do not necessarily speak to authors whom they name, but are possibly more likely to name people whom they have actually met, for example at press conferences.

### 12.5.3 Institutions and funding organisations

70 (77.8%) news articles named at least one institution in which research had been carried out or to which a journal author was affiliated. 27 (30%) mentioned the (or a) funding organisation, in some cases making their role as financial contributor clear (e.g. "The British Heart Foundation, which backed the study...") and in others not. The respectability of the organisation conducting or funding the research was sometimes pointed out to readers, e.g. "the King's Fund Institute, an independent research centre".

13 (12.4%) news articles named neither an author, an academic or medical institution nor a research funding body. 10 of these 13 articles were less than 5 sentences long, and pressures of space probably encouraged omission of names. The stories they reported were rooted and given credibility in either or both of two ways: a) they were identified as being reported in the *BMJ* or *LAN*, and b) statements were attributed to "doctors" or "researchers". Examples of the phrases used include:

- 1) ..., according to a report in the *Lancet* ....
- 2) Researchers in Britain and Germany have been testing the theory...
- 3) The Swiss researchers who report their findings in two papers in the *British Medical Journal* say...

### 12.5.4 Aspects of research included

78 news articles covered at least one journal article which primarily reported a particular piece of research. The other 12 news articles (11 of which were based on editorials or letters and one which discussed the potential of the rainforests for pharmaceutical resources) were excluded from the analysis of information about various aspects of research. Table 12.10 overleaf shows the proportions of the 78 research based news articles which included at least some information about the different aspects.

As would be predicted from prevailing wisdom about science journalism, results and implications were most frequently reported, and every newspaper article included information on at least one of these. The scores in other categories were more encouraging than would be expected from previous literature. Over a quarter of articles mentioned some limitations of either the method or the results reported, and a slightly higher proportion included information about previous studies. However, it should be remembered that these are broadsheet news articles based on journal articles and written by specialist correspondents and as such are atypical of media coverage as a whole. The quality of the advice given in the news articles was not assessed.



Table 12.10 Apects of research included in news articles

| Aspect of research   | No. articles | % articles |
|--|--------------|------------|
| Subject background   | 60           | 76.9       |
| Previous studies   | 25           | 32.1       |
| Method (other than sample size)                            | 56           | 71.8       |
| Results  | 75           | 96.2       |
| Implications of results                                    | 68           | 87.2       |
| Limitations of method/results                              | 23           | 29.5       |
| Linkage to topical event/issue                             | 13           | 16.7       |
| Direct advice/recommendations given regarding the research | 26           | 33.3       |

12.5.5 Quotations

28 (31.1 %) of the news articles included explicit quotations from the journal text. On the several occasions when more than one news article quoted directly from a journal text, the journalists selected different sentences to quote.

Quotations taken from the text were sometimes written as if they were taken down from the mouth of the author. Occasionally, words within quotation marks had been translated into lay language. Table 12.11 shows a sentence from the abstract of a journal article and the *IND* sentence which quoted it (italicisation has been added to aid comparison).

Table 12.11 Comparison of quotation from a journal and a news article

| Journal article L1154.   | Newspaper article 42  |
|--|---|
| My hypothesis is that cholesterol inhibition can inhibit tumour cell growth, can act as an adjuvant to cancer chemotherapy, and, possibly, can prevent carcinogenesis. | He says: "My hypothesis is that cholesterol inhibition can inhibit tumour cell growth and can act as an <i>adjunct</i> to cancer chemotherapy and possibly prevent <i>cancer</i> ". |

## 12.6 Use of information not contained in the journal article

### 12.6.1 Comments and quotations

16 news articles included direct speech quotations from authors which did not appear in the journal article(s) on which they were based. Of these, 6 used quotations which had been (at least partially) included on news releases. 4 others were associated with journal articles which had been the subject of press conferences. In the other cases, the journalists had presumably made telephone contact with the authors.

13 (14.4%) news articles reported the comments of individuals or organisations other than the journal article authors. Of these, 2 were reported by more than one paper. The comments and titles, positions and affiliations of the sources as given in the news articles are detailed in Table 12.12 overleaf. No consumer viewpoints were given.

Most articles reported just one "extra" source, but a *TIM* article about the risk of microbial keratitis to contact lens wearers provided comments from three. Three of the 14 extra sources of comment were described in the news reports as professors, and three more were identifiable as qualified medical or health professionals. The stated positions of the extra sources were quite "high", and they were all affiliated to well established organisations. The organisations mentioned included statutory bodies, hospitals and medical schools, professional organisations, medical research charities and a trade federation. Notably, the BHF supplied extra comment on three different issue subjects in the sample period, two of which were research projects which they have funded. These findings are all in keeping with the journalists' comments about their preference for "top" spokespeople from respected organisations, and with the press officers' comments about their efforts to get their spokespeople quoted in the media.

Of the extra comments supplied, 4 were explanatory (about background, methods or results) and 4 discussed the implications of the research. 3 were either defences against or responses to criticism or problems, and 2 presented the opposing side to a controversy. 4 gave explicit advice to readers. These findings corroborate the reasons given by journalists for contacting experts other than the authors of journal articles.

The closest any of the articles got to including a case study was to slip in a brief bit of personal history of one of the authors of a paper about tobacco mortality risks. One journalist noted that "Prof Peto, who gave up smoking in 1965, said..."



Table 12.12 Comment from non-authors

| Article subject                               | Title and Position         | Affiliation                                    | Comment type   |
|---|----------------------------|--|--|
| Medical X-rays (B809)                         | Prof. Director of Research | National Health Service                        | Implications of research. Supportive of findings.            |
| Baby milk advert (B1058)                      | (Organisation)             | King's College Hospital                        | Action taken by organisation                                 |
| Contact lens risks (L650)                     | (Organisation)             | Association of Optometrists                    | Implications of research.                                    |
| Contact lens risks (L650)                     | (Organisation)             | British College of Optometrists                | Action taken by organisation and advice to public.           |
| Contact lens risks (L650)                     | Optometrist                | May Day Hospital                               | Personal opinion and advice to public.                       |
| Leprosy case (L739)                           | Professor                  | London School of Hygiene and Tropical Medicine | Explanatory. General (reassuring) information about leprosy. |
| Suicide trends (B1409)                        | Chief Executive            | The Samaritans                                 | Discussion of methods, findings and other research.          |
| Cholesterol and heart disease (B15)           | Dr. Medical Spokesman      | British Heart Foundation                       | Opposing side of controversy and advice to public.           |
| Cholesterol and cancer (L1154)                | Dr. Consultant Oncologist  | Hammersmith Hospital                           | Opposing side of controversy.                                |
| Diabetes gene (L1307)                         | Spokesman                  | Medical Research Council                       | Explanation and implications of research.                    |
| Pickled food & throat cancer (L1314)          | Spokesman                  | Food and Drink Federation                      | Defends product associated with risk. Reassures consumers.   |
| Assisted conception (B1465, L1390)            | Mr. Spokesman              | Human Fertilisation and Embryology Authority   | Explanation of outcome measures. Advice to public.           |
| Resuscitation after heart attacks (B1347)     | (Organisation)             | British Heart Foundation                       | Implications of research.                                    |
| Magnesium treatment for heart attacks (L1553) | Professor                  | British Heart Foundation                       | Implications of research.                                    |

**12.6.2 Types of additional information**

The 90 news articles included a total of 809 sentences of varying length. The information content of 646 (79.9%) of these was judged to be substantially present in the journal article(s) with which the news article was associated. Over a quarter of the 163 sentences conveying information not substantially in the journal article provided further comment on the significance of the research and almost a quarter provided background information. Table 12.13 shows the number and percentage of sentences not derived from the journal article which contained various types of information.

The 163 sentences providing information not substantially contained in the journal article were found in 46 news articles reporting 32 issue subjects. Given that 3 of the news articles containing direct speech quotations not lifted from the journal article contained information which was thought to be substantially present in the journal article (i.e. they were not counted in the above group of 46 articles), a total of 49 (54.4%) of the news articles contained evidence of the journalist having consulted sources other than the journal article (e.g. news releases, press conferences, telephone interviews).

Table 12.13 The subject focus of sentences whose content was not substantially present in the journal article.

| Type of information                             | Number of sentences | % of extra sentences |
|---|---------------------|----------------------|
| Explanatory background                          | 36                  | 22.1                 |
| Indication of incidence                         | 23                  | 14.1                 |
| Further explanation of method or results        | 15                  | 9.2                  |
| Further comment on significance or implications | 47                  | 28.8                 |
| Topical event or issue                          | 9                   | 5.5                  |
| Previous studies                                | 12                  | 7.4                  |
| Other   | 21                  | 12.9                 |
|   | 163                 | 100.0                |

The sentences counted as "Other" were associated with just three journal articles. An article about the high incidence of oesophageal cancer among whisky distillers added the ironic comment that Scotch whisky was sometimes described as "the water of life". Several news articles based on a meta-analysis of data about blood cholesterol levels and heart disease included derogatory statements by the author (less formally phrased than



those which appeared in the journal article) about the ways in which doctors had supported their claims that high cholesterol levels. Several news articles also reported on a LAN paper which estimated and made projections of the mortality rates associated with smoking and included comments from the author about people’s assumptions about smoking. Sentences such as "Professor Richard Peto... said "We often think of smoking as something that will kill us in old age."" were categorised as "Other".

47 (28.8%) of the 163 extra sentences were derived from one press conference about a LAN article reporting on predictions of tobacco related deaths (L1268). These probably skewed the sample results to overemphasise the Incidence and Other categories, because the authors’ comments were largely aimed at persuading people of the magnitude of the risks associated with smoking and at showing that popular perceptions were often misguided. If these sentences were excluded from the sample, the number and percentages of sentences would be as in Table 12.14.

Table 12.14 The subject focus of sentences whose content was not substantially present in the journal article, excluding the sentences associated with the paper (L1268) predicting numbers of tobacco-related deaths.

| Type of information                             | Number of sentences | % of extra sentences |
|---|---------------------|----------------------|
| Explanation (background)                        | 36                  | 31.0                 |
| Incidence                                       | 9                   | 7.8                  |
| Further explanation of method or results        | 9                   | 7.8                  |
| Further comment on significance or implications | 41                  | 35.3                 |
| Topical event or issue                          | 8                   | 6.9                  |
| Previous studies                                | 9                   | 7.8                  |
| Other   | 4                   | 3.4                  |
|   | 116                 | 99.9                 |

67 (41.1%) of the sentences containing information additional to that in the journal were attributed to or reported the speech of a journal article author. 40 (24.5%) gave the comments of another individual or organisation, and 56 (34.4%) were not associated with anyone other than the journalist.

The vast majority of the sentences including information not substantially contained in the journal article were either supportive of (77, 47.2%) or neutral towards (77,

47.2%) the results and argument of the journal article. This is not surprising given previous observations of the almost deferential attitude of science journalists towards scientists and the journalists' respect for peer reviewed journals. The 9 (5.5%) sentences thought to disagree with or question the statements made or ideas put forward in the journal article were associated with just three journal articles (two concerning controversial ideas about cholesterol), and were all attributed to experts other than the author. They could all also be interpreted as attempts to discourage readers from drawing the wrong conclusions or acting inappropriately on the basis of naively accepting the information in the journal articles at face value.

The "conflicting" sentences occurred in the following contexts:

- 1) A meta-analysis of studies of the effects of cholesterol levels which concluded that lowering cholesterol levels was not beneficial against heart disease (B15) attracted comment from the same source in both newspapers which reported the story. A BHF spokesman noted several trials which had been excluded from the meta-analysis and asserted that advice to reduce dietary intake of saturated fat still held (89, 90).
- 2) An *IND* news article (42) on a paper hypothesising that lowering of cholesterol levels could be beneficial to cancer patients (L1154) included comment from a consultant oncologist who pointed out that the question was complex and the idea highly controversial, then introduced two ideas which discouraged uncritical acceptance of the hypothesis. Firstly, since cholesterol is necessary for bodily functions and cancer patients tend to have very low levels anyway, further reductions could be harmful. Secondly, some studies of the effects of cholesterol lowering drugs have suggested that these actually increase incidence of cancer. The *TIM* article (43) which also reported the story contained no comments to counter the journal article argument.
- 3) Commenting on high levels of success reported in a fertility clinic, a representative of the Human Fertilisation and Embryo Authority urged patients to compare clinics before embarking upon treatment, pointing out that their success rates and the ways they presented information about success rates differed (68).

Supportive statements typically came from authors speaking at press conferences or on the telephone to journalists who explained or added to their published findings. The BHF apparently successfully adopted the tactic of adding positive comments from its spokespeople to news releases about research it had funded. An article (88) about the use of chinese herbal treatments for eczema included an unattributed statement which would prevent readers from assuming this was a one-off "cranky" report on the subject:



The study, reported in the *Lancet*, is the third in the past year published in journals suggesting the treatment is of use.

(A press release from the hospital where the study was based said it was the second!).

Neutral statements included points made which were related to the subject of the journal article but which neither backed it up nor contradicted it. On several occasions, the cost of a treatment was noted by a newspaper reporting a journal article about the success or otherwise of the treatment. Other typical neutral statements gave basic definitions or explanations of diseases or treatments, or an indication of their incidence.

### 12.7 Errors

14 (15.5%) of the news articles were judged to contain errors when compared with the journal articles. It was assumed for the purpose of this study that the journal articles were correct. 3 errors were minor numerical slips, and another 2 minor slips were unlikely to hinder readers' understanding of the subject reported. 4 errors were apparently due to journalists' attempts to simplify information or to stress newsworthy aspects, while 5 suggested that journalists had misunderstood concepts or got things wrong. The errors are listed in tables 12.15 to 12.19.

Table 12.15 Minor numerical errors in sample details

| Journal code | News code | Journal version  | Newspaper version   |
|--------------|-----------|--|---|
| B551         | 2         | ... during November 1988 to March 1990   | During the five months ending in March 1990...            |
| B1019        | 33        | Subjects: 468 men  | ... examined 469 men...                                   |
| B617         | 7         | Subjects: 94 patients with insulin treated diabetes with a total of 112 admissions for hypoglycaemia..., 182 patients with insulin treated diabetes seen in the same hospital for reasons other than hypoglycaemia ..., and 86 insulin treated diabetics who were members of ... | ... have concluded from a study of 262 Swiss diabetics... |

The effects of these errors were unlikely to be dramatic: the first shortened the period of study by 10 months, and the other two altered the sample size, one increasing it by 1 and the other decreasing it by 100. Other, non-numerical slips which were unlikely to greatly hinder public understanding are shown in table 12.16 overleaf.

Table 12.16 Slips unlikely to hinder public understanding

| Journal code | News code | Journal version   | Newspaper version   |
|--------------|-----------|---|---|
| B1023        | 34        | ... 22% (... ) were functioning socially at very poor or severely maladjusted levels.                                 | ... 22 per cent could function socially other than at very poor or severely maladjusted levels.         |
| L1553        | 83        | [First author of this paper is Dr. Kent L. Woods. No estimated cost of the magnesium treatment was given in the LAN.] | Dr Kent says in the Lancet that a course of magnesium treatment would probably cost between £5 and £10. |

The omission of a "not" in the newspaper version of the first example is fairly obvious. Only a very awkward reading would allow the interpretation that 78% were functioning socially at very poor levels. In the second case, while incorrect attributions are annoying for those involved, understanding should be little affected by the slip.

Table 12.17 overleaf shows inaccuracies apparently due to attempts to simplify or stress the newsworthy. In the first case, the primary aim of the research was misreported, and in the final case the newspaper article gave no indication that a comparison or control group was used in the trial of magnesium sulphate. In both cases, the gist of the results was still clear. The other two errors were slightly more serious. In the second case, the range of aluminium concentrations in fruit juices was underestimated by the newspaper, and in the third, the newspaper article made no distinction between pregnancy and livebirth rates and in fact reported a lower rate of conception than had been found.



Table 12.17 Inaccuracies due to attempts to simplify or to stress the newsworthy

| Journal code | News code | Journal version  | Newspaper version  |
|--------------|-----------|--|--|
| L1150        | 44        | EPD (enzyme potentiated desensitisation) was tested in a double blind placebo controlled trial among 40 children... Our results show that EPD permits children with food-induced hyperkinetic syndrome to eat foods that had previously been identified as responsible for their symptoms. These results also support the notion that food allergy is a possible mechanism of the hyperkinetic syndrome. | Researchers... have been testing the theory that allergies to certain substances are the cause of hyperkinetic syndrome. |
| L1236        | 47        | The median aluminium concentration of whole juice was 5.9 mol/l (range 2.3 - 12.3)... The median aluminium concentration of the supernatant from the reconstituted juice was 5.3 mol/l (1.2 - 7.4), and 2.1 mol/l in fresh juice.  | A team... found aluminium levels ranging from 2.1 to 5.3 micromoles per litre in the juice...                            |
| L1390        | 68        | ... cumulative conception and livebirth rates after five treatment cycles were about 54% and 45% respectively at 20-34 years.  | They found that up to the age of 34, nearly half of women became pregnant after five treatment cycles.                   |
| L1553        | 83        | We therefore conducted a randomised, double blind placebo controlled study in 2316 patients... who received either intravenous magnesium sulphate... or physiological saline.  | Dr Kent Woods and colleagues... tested the treatment on 2,316 patients.  |

Table 12.18 Errors apparently due to journalists' misunderstanding of concepts

| Journal code | News code | Journal version  | Newspaper version   |
|--------------|-----------|--|---|
| L616         | 6         | [Questionnaire respondents gave their attitudes to the accuracy of various tests on a scale of 1 (very inaccurate) to 7 (very accurate). A table showed that biochemical tests were deemed inaccurate by 74.1% and foetal blood sampling by 13.7% of respondents.]   | ... many specialists regarded biochemical tests of mother and foetus as only 26% accurate, and foetal blood sampling tests as 86% accurate...   |
| B1279        | 46        | [Women were questioned about long term symptoms after childbirth. The most commonly reported were backache (18.9% after epidural, 10.5% otherwise) and frequent headaches (4.6% v 2.9%).]<br>Although we defined long term symptoms as those lasting longer than six weeks, most had in fact lasted much longer. About two thirds were still present at the time of our enquiry. | More than 60% of women who opt for an epidural injection for pain relief during labour may suffer side effects for up to a year after giving birth...   |
| B15          | 89        | Subjects: 22 controlled cholesterol lowering trials. Results: Trials considered by their directors as supportive of the contention were cited almost six times more often than the others... In the 22 controlled cholesterol lowering trials studied total and coronary heart disease mortality was not changed significantly either overall or in any subgroup.                | Dr U Ravnskov... reviewed 22 cholesterol lowering trials and found no change in the number of deaths from the illness (CHD), and only a small reduction in non-fatal heart disease. He also found that other clinical trials which supported the lowering of cholesterol were cited six times more often by researchers than the non-supportive trials. |

In the first case, the journalist mistook the percentage of respondents who rated tests as inaccurate for a measure of the extent of the inaccuracy. In the second case a failure to grasp that the women with symptoms lasting much longer than six weeks were a subset of those reporting symptoms of at least six weeks duration caused the proportion of women suffering after epidural anaesthesia to be vastly overstated. The final case misunderstood the number of clinical trials included in a meta analysis.



Table 12.19 shows the two errors which contradicted statements in the journal. The first wrongly suggested that women who abstained from alcohol were found to be at a higher risk of death than women drinkers (although at an earlier point, the news article had correctly stated that women who gave up drinking were at higher risk than those who had never drunk). The second news article contradicted the journal article, giving the impression that its results were discrepant with those of previous studies.

Table 12.19 Errors contradicting statements in journal articles

| Journal code | News code | Journal version   | Newspaper version  |
|--------------|-----------|---|--|
| B553         | 5         | ... long term male abstainers were at a marginally increased risk of death compared with drinkers. The same increase in risk was not found in female abstainers.  | "Men who are long term abstainers might also face an increased risk of death", the researchers reported, although they cannot explain why the odds appear to be stacked higher against women who do not drink.     |
| B617         | 7         | Impaired recognition of hypoglycaemia in diabetic patients transferred from animal insulin to human insulin was first reported from retrospective clinical surveys... Subsequent work suggested that there could be a real difference in response to human and porcine insulin. | Two papers in the British Medical Journal gave weight to the complaints [that with human insulin there is less warning of hypoglycaemia] although other studies have found no difference between the two insulins. |

### 12.8 Translations

A total of 68 words or phrases in the news articles analysed were thought to constitute a translation from technical terminology in the original. 39 of these translations were judged to be "straight", 16 to have added an explanation for the lay reader, and 13 to have involved a loss of precision. Examples of the three categories of translation are given in Table 12.20 overleaf. In 16 cases, the original word or phrase was also included in the news article.

The number of translated terms identified does not reflect the effort involved in translating medical language for a lay audience. Newspapers do not pick up many of the technical concepts contained in the journals. This study did not include as translations

words which appeared in journal articles as lay synonyms providing linguistic variety from the technical terms.

Table 12.20 Examples of translations

| Translation type | Journal wording  | Newspaper wording   |
|------------------|--|---|
| Straight         | hyperlipidaemia  | high blood fats   |
| Straight         | in utero   | in the womb   |
| Straight         | birth asphyxia   | oxygen loss at birth  |
| Straight         | SMR 124  | increased incidence of death from cancer of 24% among all employees, compared with the death rate in the general population |
| Adds explanation | coronary angioplasty   | balloon angioplasty, in which a blocked artery is widened in a relatively minor procedure                                   |
| Adds explanation | Parkinson's disease  | Parkinson's disease, a debilitating nerve disorder that tends to manifest itself in later life                              |
| Adds explanation | platelets  | platelets, blood cells that lump together to repair a cut   |
| Loses precision  | chronic obstructive pulmonary disease                                      | chest conditions such as bronchitis   |
| Loses precision  | ischaemic heart disease  | heart disease   |
| Loses precision  | erythrocyte sedimentation rate, C-reactive protein, white blood cell count | blood tests, blood markers  |

### 12.9 Journal news releases and news articles

46 (80.7%) of the 57 journal articles (or 40 (78.4%) of the 51 issue subjects) reported by newspapers had been included on a journal news release. These accounted for 77 (85.5%) of the newspaper articles found. The 11 reported journal articles which were not included on a journal news release accounted for just 13 news articles. They were used an average 1.18 times, compared with 1.67 for the journal articles press released by the journal. There would thus seem to be a fairly strong association between those stories which were included on journal news releases and those which were reported by the newspapers. (It should also be noted that at least three of the eleven journal articles



which were not press released by the journal but which were used by newspapers had been press released by funding organisations<sup>6</sup>, see section 12.10). The association could in part be due to journal news releases encouraging journalists to use particular articles, but could also be because journal staff are more likely to mention journal articles they perceive as newsworthy on the news release.

When the figures are broken down by journal article section and genre, some interesting patterns appear. 33 out of 37 (89.2%) of the original papers in general sections which were reported in newspapers had been press released by the journal. The corresponding numbers for other journal sections were: 8 out of 10 (80.0%) original papers in subject sections; 3 out of 5 (60.0%) editorials; and 2 out of 5 (40.0%) letters. These figures suggest (tentatively because of the small numbers involved) that news journalists are more likely to report letters than journal staff are to include them on the news release, either because they are more likely to see them as newsworthy, or, possibly, because they are less concerned to see major pieces of research publicised in preference to more anecdotal reports. However, the *LAN* in particular press released more letters than were picked up by journalists, and when the evidence on the news releases is considered as well as that in the newspapers, the relatively low proportions of reported letters which had been press released would seem rather to be due to journalists and journal staff disagreeing more over "minor" news stories (see 11.6.1). 13 *LAN* letters were press released by the journal in the sample period. Just 1 of these and 1 other were reported in the sample of newspapers. The *BMJ*, in contrast, press released only 1 letter (B1376), which was reported. Another 2 *BMJ* letters were reported which were not included on the journal news release.

#### 12.9.1 Journal sections and journal news releases

Tables 12.21 and 12.22 overleaf show the numbers and proportions of articles from different journal sections included on news releases from the *BMJ* and *LAN* respectively during the 18 week sample period.

The *BMJ* selected quite a large proportion of its General Practice articles for inclusion on its news release, but none of these were picked up by the quality press. It could be that they were intended more for journalists writing for magazines targeted at general practitioners than those with a lay audience. The topics dealt with in these articles

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6. Information was not available for one of the journal articles which had not been press released by the journal as to whether it had been press released by others.

Table 12.21 Journal articles included on the BMJ news release

| Journal section    | No. of journal articles | No. and % on news release | No. and % used by at least one newspaper | No. used but not press released | No. press released but not used |
|--------------------|-------------------------|---------------------------|--|---------------------------------|---------------------------------|
| Papers             | 119                     | 54 (45.4%)                | 22 (18.5%)                               | 1                               | 33                              |
| General Practice   | 28                      | 9 (32.1%)                 | 0 ( 0.0%)                                | 0                               | 9                               |
| Education & Debate | 84                      | 4 ( 4.8%)                 | 1 ( 1.2%)                                | 0                               | 3                               |
| Audit in Practice  | 4                       | 1 (25.0%)                 | 0 ( 0.0%)                                | 0                               | 1                               |
| Editorials         | 99                      | 3 ( 3.0%)                 | 3 ( 3.0%)                                | 2                               | 2                               |
| Letters            | 390                     | 1 ( 0.3%)                 | 3 ( 0.8%)                                | 2                               | 0                               |

Table 12.22 Journal articles included on the LAN news release

| Journal section        | No. of journal articles | No. and % on news release | No. and % used by at least one newspaper | No. used but not press released | No. press released but not used |
|------------------------|-------------------------|---------------------------|--|---------------------------------|---------------------------------|
| Original articles      | 72                      | 29 (40.3%)                | 13 (18.1%)                               | 3                               | 19                              |
| Short Reports          | 35                      | 5 (14.3%)                 | 1 ( 2.9%)                                | 0                               | 4                               |
| Clinical Practice      | 27                      | 9 (33.3%)                 | 3 (11.1%)                                | 0                               | 6                               |
| Public Health          | 7                       | 3 (42.9%)                 | 2 (28.6%)                                | 1                               | 2                               |
| Other subject sections | 39                      | 5 (12.8%)                 | 5 (12.8%)                                | 1                               | 1                               |
| Editorials             | 86                      | 8 ( 9.3%)                 | 2 ( 2.3%)                                | 0                               | 6                               |
| Letters                | 564                     | 13 ( 2.3%)                | 2 ( 0.4%)                                | 1                               | 12                              |



included: the under-recognition by GPs of visual problems in elderly people; the use of questionnaires to help GPs target asthma care; the possibility that the UK medical system discriminated against Asian doctors; and the effects of an announcement that a housing estate would be demolished on the numbers of consultations residents made with their GPs. Given the absence of high-technology medicine from these articles, their primary care focus, and their concern with social rather than biomedical problems, it is unsurprising that journalists did not use them: this finding adds to previous evidence that media coverage of health care issues tends to have a medical approach (Karpf, 1988), to focus on hospital-based medicine (Garland, 1984), and to pay scant attention to social causes of ill-health, or to health issues associated with poverty or with underprivileged groups (Kristiansen & Harding, 1984; Entwistle & Hancock-Beaulieu, 1992).

As mentioned in 12.3.1, the *BMJ* Education & Debate section includes professional update type articles as well as more general and articles about health services. Journal staff presumably recognised that these were low in news value and unlikely to be of interest to news journalists, since relatively few were included on news releases. The one which was picked up was a review of recent evidence of associations between alcohol and cardiovascular disease (B565), which appeared in the same issue as a research paper on the subject. The other three Education & Debate articles appearing on news releases were discussions of coronary heart disease and smoking in connection with the Health of the Nation white paper, and a consideration of the legality of medical students examining patients. The *LAN* press released relatively more of its papers from subject sections than the *BMJ*, and these were quite well picked up.

Major research papers and essays were more likely to be included on the news releases of both journals than editorials and letters, but the *LAN* included more letters and editorials on its news releases than the *BMJ*. The *LAN* also included 3 editorials on news releases in their own right (all the other editorials were included in items linked to research papers).

#### 12.9.2 Genres and journal news releases

Similar patterns of association between news release items and news articles were seen when the genres of the journal articles were considered. All evaluations of interventions and articles about medical audit which were reported in newspapers had been press released by the journal. 20 out of 26 (76.9%) of the reported aetiological or epidemiological journal articles were press released by the journal, 7 out of 10 (70.0%)

reported viewpoint, and 1 out of 3 (33.3%) reported case study type articles. The one case study which was press released was the first report of an attempted suicide-by-exhaust-fumes being foiled because the car had a catalytic converter (B1376).

Table 12.23 shows the genres of the major research papers sections which were included on journal news releases.

Table 12.23 the genres of the BMJ papers, LAN Original Articles (OA), LAN Short Reports (SR) and LAN subject sections (SS) press released by the journals

| Genre                           | BMJ Papers |           |         | LAN OAs and SRs |           |         | LAN SSs |           |         |
|---------------------------------|------------|-----------|---------|-----------------|-----------|---------|---------|-----------|---------|
|                                 | Total      | No. rel'd | % rel'd | Total           | No. rel'd | % rel'd | Total   | No. rel'd | % rel'd |
| Audit of medical practice       | 18         | 12        | 66.7    | 1               | 0         | 0.0     | 5       | 2         | 40.0    |
| Case report                     | 5          | 1         | 20.0    | 11              | 2         | 18.2    | 1       | 0         | 0.0     |
| Evaluation of intervention      | 36         | 15        | 41.7    | 40              | 14        | 35.0    | 19      | 7         | 36.8    |
| Aetiological Epidemiological    | 52         | 21        | 40.4    | 55              | 18        | 32.7    | 7       | 3         | 42.8    |
| Review, viewpoint or hypothesis | 8          | 5         | 62.5    | 0               | 0         | 0.0     | 41      | 5         | 12.2    |

### 12.9.3 Journalists' use of journal news releases

In many cases, textual evidence will not reveal with any certainty whether or not the journal's news release (if there was one) was used during the writing of the news article. Articles rarely indicate whether journalists got their information from the journal article, a news release, direct from an author or from another source of information, and the information content of these different sources often overlaps. Although one journalist specified a press conference as the occasion of expert comment ("At [a] London press conference, organised by the Medical Research Council, Prof Barker and Prof Hales suggested..."), direct clues about their exact sources of information were rare. Slightly less obvious traces could be detected in a few more news articles, however. One directly quoted comments from the journal news release and not the journal. The comments were of a "more research is needed" variety, but those on the news release were less technical and made the further research sound more pressing than those made elsewhere in the journal. The urgency mentioned on the news release presumably made for a stronger



story. The article abstract, summary for the journal’s highlights page, news release and newspaper article comments are compared in Table 12.24.

Table 12.24 Statements about the interpretations of research

| Journal article abstract (B1279)   | This week in BMJ   | BMJ news release  | Newspaper article (49)   |
|--|--|---|--|
| These associations may indicate a causal sequence, although this cannot be proved from this type of study. Randomised trials of epidural anaesthesia are required to determine whether causal relations exist. | Further research is necessary both to assess the severity of the symptoms and to test causality through randomised controlled trials of the procedure. | This study does not allow one to conclude that the epidural anaesthetic caused the health problems, but the authors suggest that further studies are urgently needed to sort out the association. | The British Medical Journal, which publishes the research, comments: "This study does not allow one to conclude that the epidural anaesthetic caused the health problem, but it does suggest further studies are urgently needed". |

For this study, the *BMJ* was not asked to disclose the names of journalists requesting articles in advance as a result of having seen the journal’s news release, although this would have allowed an analysis of the association between articles requested and those appearing in print.

12.10 Non-journal news releases and news articles

13 of the 57 *BMJ* or *LAN* articles reported by newspapers were known to have been press released to national newspapers by organisations other than the journals before the embargo date<sup>7</sup>. The organisations concerned were: MRC (4 news releases); BHF (2); ICRF (2); Association of Contact Lens Manufacturers; King’s Fund Insitute; World Health Organisation; National Schizophrenia Fellowship; and Royal Free Hampstead NHS Trust. With the exception of the last two, all were involved in funding the reported work. Obviously different time samples would throw up other names in this regard, but the comments of journalists and representatives of the three organisations which achieved

7. Information was unavailable for 9 of the articles. 1 author declined to provide information because of lack of time, and the other 8 did not respond to two requests for information.

coverage for more than one of "their" news released journal articles suggest that these three might appear regularly as long as current patterns of research, media relations activity and journalistic practice exist. Two MRC news releases and one ICRF one were about *LAN* articles which had not been included on the journal's news release.

Correspondence with authors revealed that news releases were occasionally issued after the journal publication date. These would be of less use to news journalists working for national quality newspapers than to feature writers and journalists working on weekly or other non-daily publications. Some were particularly targeted at local media outlets.

#### 12.10.1 Characteristics of non-journal news releases

One of the 13 non-journal news releases was an invitation to a press conference, but the other 12 were informative, fairly comprehensive lay language summaries of the journal article concerned. 10 of these 12 included direct speech style quotations, 3 using quotations identical or almost identical to wording in the journal, and 8 using quotations obviously obtained from other sources (1 used both). Of those using quotations from other sources, 7 attributed at least one to a named author of the journal article (one news release quoted 2 authors with additional statements and another quoted 3), and 3 attributed quotations to other named people.

Of the 12 informative news releases, 10 (83.3%) included some information about the subject background, 7 (58.3%) mentioned previous studies, and 9 (75.0%) provided details about the method other than the sample size. These proportions were slightly higher than those observed among newspaper articles (see table 12.10). All non-journal news releases included information about results and their implications, and all either provided direct advice to readers or made recommendations about necessary further research or action on the basis of the reported research. Formal readability tests were not applied in this study, but the news releases were fairly obviously written in a less technical style than their respective journal articles and were relatively jargon free.

Obviously, the news releases were printed on paper headed with the issuing organisation's name on. In addition, all but one emphasised in the text the involvement of the issuing organisation in the research (the exceptional news release was issued by a non-funder). For example:

The Oxford team, funded principally by the Medical Research Council...

The finding, by scientists from the Imperial Cancer Research Fund,...

Other organisational plugs were included as well as funding:



Resuscitation outside hospital has been very much more successful since the time of the survey because of the improved training of ambulance personnel and the provision of defibrillators to ambulances (largely through donations to the British Heart Foundation)...

#### 12.10.2 Additional sentences on non-journal news releases

10 of the non-journal news releases contained a total of 63 sentences which included information that was not substantially present in the original journal article. 6 of these sentences provided some explanation of the nature of a particular disease or treatment, and 4 about its incidence or prevalence. 1 pointed out the topicality of a study, and 1 explained the rationale behind a research project. 1 of the extra sentences outlined what was meant by a double blind placebo-controlled study. 11 sentences either explained the results of the current study or in some way added to these. For example, one sentence expanded on the journal article's figure of 150,000 deaths a year to explain this was equivalent to about 400 deaths a day or more than one every four minutes. Another two sentences included on one news release outlined the as yet unpublished early follow up results of the reported study.

2 additional sentences from one press release explicitly emphasised the need for caution in interpretation:

As in all epidemiological studies, the findings must be interpreted cautiously. An elevated relative risk does not imply a causal relationship.

A further 4 sentences stressed the limited scope of the reported study, 5 mentioned that more research into a particular aspect was needed, planned or underway, and 2 gave direct advice to interested patients. 12 of the extra sentences discussed future applications of the findings or their implications in terms of necessary or recommended actions.

10 additional sentences explained the contribution made by the particular study to understanding of a particular topic, or otherwise put its significance into context. Examples of such sentences include:

For the first time, this study provides a baseline for comparison with results from other countries and from future surveys.

Said Professor Leigh: "The present findings represent an important step forward in identifying factors which influence an individual's susceptibility to Parkinson's disease. The research opens up new avenues of research into the functions of the P450 and CYP2D6 enzyme both in the liver and the brain.

Thus, in accordance with comments from press officers, non-journal news releases were used for the addition of quotations from authors, organisational plugs, caution comments

and explanatory context. One also included 3 extra sentences which incorporated health education type messages.

### 12.10.3 Journalists' use of non-journal news releases

28 newspaper articles reported the 13 journal articles known to have been press released by an organisation other than the funder, giving an average of 2.15 newspaper uses. The average number of newspaper uses of the 10 journal articles which had been included on both the journal and another organisation's news release was 2.50. Compared with the overall average of 1.75 newspaper uses, this was quite high and suggests a strong association between appearance on news releases and appearance in news articles. However, this should not be seen as purely causal: strong news stories appearing in the *BMJ* and *LAN* are likely to be recognised by media relations officers and journalists independently.

There was some textual evidence to suggest that non-journal news releases were sometimes the means by which journalists were first alerted to a story or the main sources of information used to write it. The King's Fund Institute funded some research into the utilisation of acute hospital facilities in London by homeless people. It was published as one of the King's Fund's Occasional Papers (Scheuer et al, 1991) and also reported in the *BMJ* (B958). The King's Fund issued a news release, based on the occasional paper, which was embargoed until the *BMJ* paper was published. The study was picked up by two newspapers (28, 31), neither of which mentioned the *BMJ*, and both of which used information that appeared in the news release and Occasional Paper but not the *BMJ* article.

24 of the 28 news articles for which a non-journal news release was available named the issuing organisation. The 4 which did not were associated with just two news releases: one from the Association of Contact Lens Manufacturers (this was an invitation to a press conference, and the organisation was named by the one journalist who attended it); and the other issued by the National Schizophrenia Fellowship which supplied information about an unpublished follow up to the original research). All 4 of these news articles mentioned the hospital(s) at which the research was conducted. The institutional "acknowledgement" rate (85.7%) of this subset of news articles for which press releases had been available compared favourably with that of the whole sample (see 12.5.3).



12 newspaper articles used information included on a news releases issued by an organisation other than the journal which was not present in the journal article itself. This strongly suggests, but cannot prove, that organisations' news releases are made use of in the development of at least some news articles. It should not be assumed from the absence of the additional information in certain news articles that the journalists responsible did not consult the news article. They could in fact, have been swayed by the appearance of a news release to write the article in the first place, and they might have read the extra information but either not written about it (although it could still have contributed to their background understanding) or written about it and seen it cut by sub-editors. In some news articles, points or comments were made which did not appear in the journal article but which were similar in thrust to those in the news release. It is plausible that the journalists made independent contact with authors or other experts who commented in a similar fashion to them as they had to the press officers who prepared the news release.

A total of 20 "extra" sentences in news articles were based on 12 news release sentences. Of these, 3 (based on 1 sentence stating that magnesium was better known in the treatment of stomach complaints than heart problems) were classed as explanatory about the nature of the disease or treatment; 7 (based on 4) explained or added to the results; 3 (based on 3) concerned the implications or future applications of the work; 1 was an organisational "plug"; and 6 (based on 3 from one news release) were health education type messages encouraging people to give up smoking.

In several cases, press conferences were also held about the research covered on the news releases, and sometimes quotes would be taken from these. On an ICRF news release about research into mortality rates associated with tobacco, Dr Alan Lopez was quoted as saying "... we now see that if women smoke like men, they will die like men". A *TIM* article put the same phrase as part of a longer quotation into the mouth of Dr Richard Peto, although it did quote other comments from Dr Lopez elsewhere.

#### 12.11 Differences between news reports

Several aspects of the content analysis thus far have confirmed that different journalists often respond differently to the same information, developing stories in slightly different ways. Different quotes were selected from those known to be available to all, and while journalists sometimes picked up those which had been incorporated into the organisation's news release, at other times they appeared to prefer others. These

differences are not surprising, and may stem from both the preferences and practices of individual journalists and the editorial stances of the newspapers they work for. Clayton et al (1993) reported that the *GUA* tended to be more critical than the *TIM* in its reporting of science and technology, having observed a smaller proportion of positive words in *GUA* articles about medicine and space/astronomy, and a greater concern with risk analyses, general implications and negative environmental consequences in its reporting of the Chernobyl reactor accident. They suggested these differences could be related to the differing editorial stances of the two newspapers. This explanation seems particularly plausible when new, possibly high risk, or emotive technologies are concerned, and could be explored by systematic studies of samples of matched articles covering particular topics in the different newspapers.

On the week in which articles about assisted conception "success" rates appeared in both the *BMJ* and the *LAN* (B1465 and L1390), the four newspapers studied published stories which differed in their orientation (positive, negative or neutral) and emphasis. Table 12.25 shows the headline (emboldened) and first paragraph of the four news reports.

Table 12.25 News reports about IVF treatments

| GUA   | IND   | TEL  | TIM   |
|---|---|--|---|
| <b>Test tube success.</b> the success rate for test tube baby treatments is improving and can reach 70 per cent after six attempts, researchers at Bristol University say. [Full article] | <b>IVF success falls with age.</b> The test tube baby technique is most successful on younger women, with chances of having a baby falling rapidly after age 34, doctors say. | <b>Fertility hope for younger couples.</b> Young infertile women given test tube baby treatment have as much chance of having a baby as other women if they persist with the treatment, doctors found. | <b>Study traces IVF rate.</b> The success rate of in-vitro fertilisation treatment declines greatly once a woman passes the age of 34, according to a new study of more than 2,500 women. |

While three of the reports focused on the variation in success of IVF treatments with age, the headlines of these articles in the *IND*, *TEL* and *TIM* were negative, positive and neutral in tone respectively.

The differences between the newspapers' approaches to reporting particular journal articles should not be over-emphasised, however, and neither should their significance. Different quotes from different sources may also be incorporated into news articles



which are nonetheless written in very similar frames. Table 12.26 shows the headlines and first paragraphs of 4 news articles based on the same journal article (L1553). These incorporated different quotations but started off in very similar veins.

Table 12.26 News reports about magnesium therapy for heart attacks

| GUA  | IND   | TEL  | TIM  |
|--|---|--|--|
| <b>Remedy for indigestion found to save heart attack victims.</b> A drug traditionally used to treat stomach upsets has an important new role as a therapy to prevent deaths after a heart attack, doctors say in the <i>Lancet</i> today. | <b>Magnesium "beneficial in heart attack treatment".</b> Magnesium - more usually a treatment for indigestion - has been found to reduce deaths from heart attacks. | <b>Magnesium "helps cut heart deaths".</b> Deaths from heart attacks were cut by a quarter by giving patients magnesium, a remedy better known for stomach complaints, according to a study out today. | <b>Hope for heart victims.</b> Magnesium injected into the veins of heart attack victims can reduce deaths by a quarter, according to a study published in this week's <i>Lancet</i> . |

It seems likely that the range of possible news frames may be more limited for some journal articles than others, giving journalists less scope to express their different standpoints (although their decisions about whether or not to cover the story at all may reflect these). Research studies of homogeneous populations which use single main outcome measures are more likely to be reported according to similar frames by all the newspapers which report them than are those which study a variety of subjects and have multiple outcome measures.

12.12 Summary

The results of the content analysis corroborated many of the comments made by both journalists and press officers during the interviews. Before the main points are summarised, however, some of the limitations of the content analysis methodology should be noted. Firstly, the study of the news article texts was limited in the extent to which it could shed light on the exact sources which journalists used because the information content of many potential sources overlapped and because news articles very rarely explicitly acknowledge particular news releases or press conferences. Secondly, although some trends in journalists' selection decisions were fairly clearly discernible and some of their overall tendencies to include particular types of information in news

articles were revealed, their decisions are not consciously made along the specific lines of the categories employed in content analyses (although the categories in this case were chosen to reflect their comments about selection decisions as far as possible). Thirdly, the processes involved in the production of a news article are subject to many influences, as discussed in previous chapters, so over-simplistic conclusions attributing particular features of news articles to particular causes are likely to be inappropriate unless informed by sources other than content studies.

Some of the main points of note suggested by the findings of the content analysis study are:

1. The *BMJ* and *LAN* are regularly used as sources by the broadsheet newspapers, which published on average over one news story per newspaper derived from one of these two journals on each journal embargo date over the period covered.
2. The *BMJ* and *LAN* were treated by the newspapers as authorised knowers, with comments attributed to them in the same way as they would be to individual human experts. The journals were sometimes the only source of information cited (over 10% of the news articles studied named neither an author nor an institution which had housed, supervised or funded the research).
3. Primary research reports of epidemiological studies or trials of medical interventions accounted for the majority of those news stories based on journal articles which were printed on the journal embargo dates, and over 80% of the journal articles reported were substantial original papers. Case reports and opinion pieces also triggered news reports, but these were less likely to be reported by more than one newspaper than the major primary research reports.
4. Journal articles were more likely to be reported by the UK broadsheet press if at least some of their authors had British institutional affiliations, and British authors were more likely to be named in news articles than their overseas counterparts.
5. In keeping with prevailing wisdom about science journalism, the aspects of research most frequently included in news reports were the results and their implications. Less than a third of news articles made reference to previous research on the problem of concern, and less than a third mentioned any limitations of the methods used or results obtained. However, over 70% of the news articles included some information (other than the sample size) about the methods used in the research.
6. Just over half the news articles contained evidence that the journalist writing it had used sources other than the journal article itself. News releases and press conferences



would seem to feature prominently among these other sources. Less than 15% of the news articles contained comments from individuals or organisations other than the authors, and several of the comments from non-author sources actually came from representatives of the organisations which had funded the research. The vast majority of news stories were uncritical of the research/journal articles they reported, although opposing viewpoints were introduced in news articles based on journal papers with obviously controversial arguments.

7. Approximately 20% of the sentences in the news articles were judged to contain information not substantially present in the journal articles on which they were based. Explanatory background information, indications of the number of people affected by the disease/treatment/risk factor, and comment on the significance or implications of the research reported accounted for well over half of the "added" information.

8. Just over 15% of the news articles studied were judged to contain errors when compared with the journal articles on which they reported. About a third each of the errors were: a) minor numerical/typographical/attribution slips unlikely to hinder public understanding; b) inaccuracies apparently due to attempts to simplify the story or to stress newsworthy elements; c) errors apparently due to journalists misunderstanding concepts. Some of the errors in the latter two categories could mislead people, for example, to underestimate the amounts of aluminium which might be found in fruit juices, or to overestimate the numbers of women suffering long term negative side effects after epidural anaesthesia.

9. Over 80% of the journal articles reported by newspapers on the journal embargo date had been included on a journal news release, and the average number of newspaper uses of journal articles reported by at least one newspaper was greater for those which had featured on journal news releases. This study could not show to what extent journal news releases encouraged journalists to use particular news articles and to what extent press officers and journalists independently identified the same journal articles as newsworthy.

10. Journal articles for which news releases were issued by research funding organisations were reported on average by a greater number of newspapers than most. This does not necessarily mean that the journalists were persuaded by the news release to write the story, but textual evidence did suggest that information included on the news releases was used in the development of at least some news articles.

11. The news releases issued by funding organisations, as suggested by the press officers interviewed, provided summaries of the research in less technical language than that used

in the journal article. They were used to emphasise the involvement of the funding organisation, to clarify the implications, significance and possible applications of the research, and to stress the need for caution in interpretation where appropriate. Most included direct speech type quotations attributed to authors and/or senior spokespeople for the organisation.



### 13 Summary and conclusions

This project was conceived as a preliminary study which aimed to provide a broad overview of the information flows influencing media coverage of medical research. This chapter will draw together some of the findings previously noted in the results and discussion chapters. A generalised diagram of the information flows associated with medical journals will be presented, and then attention will be focused on the following areas: the variety of influences on the relevant information flows; the tensions and constraints experienced by press officers and specialist journalists; the effectiveness of media relations activity; the promise and problems of journal articles as sources of news stories; pressures and patterns in the reporting of medical research; and the construction of expertise in the media. The chapter will conclude by suggesting priority areas for future research.

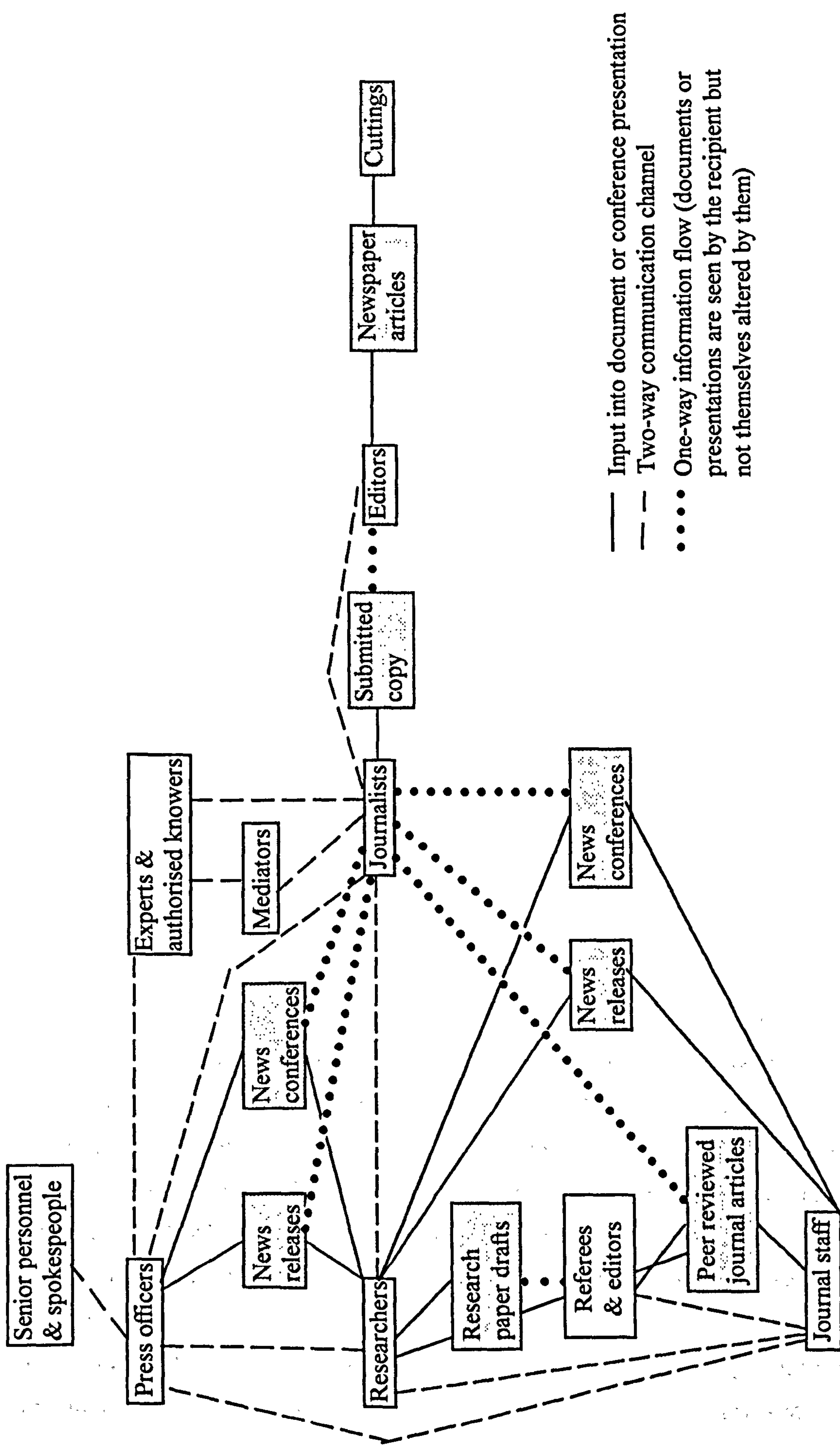
Before the summary of findings is presented, some of the limitations of the study should be briefly noted again:

- 1) The largely qualitative approach supported the generation of ideas for further exploration rather than the production of definitive answers.
- 2) The breadth of the project precluded *detailed* study of some of the most interesting areas which were identified.
- 3) The use of elite interviews with purposive samples of press officers and specialist journalists precluded systematic quantitative analyses of the information flows.
- 4) The information flows model which underlay the research meant that the project focussed on nodes of information transformation and transfer between research fora and lay media, and the various influences on these.
- 5) Information gleaned from self-reports obviously needs to be interpreted with caution, although happily in this project, the evidence supplied by the journalists and the press officers was largely corroboratory, and the content analysis tended to back up the comments of both groups.

#### 13.1 Patterns of information flow

Figure 13.1 overleaf outlines the various information flows (generally) involved in the transfer of information from journal articles to lay newspapers. The unshaded boxes represent people (and the loci of decision making), while the shaded boxes represent documents and news conferences (artefacts or major stages in the transformation and transfer of information). Representatives of and artefacts produced by research

Figure 13.1 Information flows from research papers to newspapers





institutions and source organisations are located in the top half of the figure, while the bottom half represents personnel and products associated with journal organisations. The solid, broken and dotted lines between players and artefacts represent possible information flows: input into documents or conference presentations; general two-way communication channels between players; and one way information flows (as documents are seen but not themselves amended by people) respectively. The means of communication (e.g. face to face, fax, telephone) are not shown, with the exception of news releases and news conferences which are usually specific to particular journal articles and accessible by all relevant specialist journalists.

The lines emanating from the *Cuttings* box on the right hand side of the diagram represent feedback loops, of which there are three major ones. Firstly, journalists' output in the form of news articles is monitored by press officers who use it as a guide to tailor future dealings with media representatives. Secondly, journalists themselves use press cuttings to check up on background information (particularly from their own articles); to assess how much attention has been given to a topic; to check how their colleagues are reporting things; and possibly to identify suitable contacts on a particular topic. Thirdly, the perceptions which potential expert sources have of particular journalists or news outlets may be influenced by the articles or cuttings they see.

On different occasions, different information flows will be operative to different extents, and the nature of the communications will vary. Figure 13.1 is a generalised diagram: the contents of the boxes are generic rather than specific, and a range of communication lines which might or might not be used on any one occasion are included. The figure could easily be adapted for specific instances. For example, in the case of a *BMJ* article about research funded by the British Heart Foundation, the *Press officers* box would be occupied by individual press officers from the BHF and their press relations company, who might opt not to use a news conference, but would need to consult members of the specific research team for help in drafting a news release, and so on. The particular contents of the boxes in the diagram would be important influences on whether or not particular channels of communication were used, what information was communicated and how it was transformed en route. A journal article widely regarded as of major import, for example, would be more likely to be included on a journal news release than one of lesser significance.

The "context" of the box contents, although not represented on the diagram, would also be important, as various environmental (competitive, social, political, economic

etc.) factors influence the activities of individuals. For example, a journalist's decision as to whether to attend a particular news conference might depend on the location and timing of the event and the staffing levels in the newsroom as well as his/her prior judgement of the likely strength (in news terms) of the research being presented and his/her opinions of the source organisation involved.

In some cases it might be appropriate to include several boxes of the same type on a specific adaptation of figure 13.1. For example, a journal article reporting a major piece of collaborative research might be the subject of media relations activity by press officers from two different organisations, who put forward separate news releases and different individual experts.

The information flows surrounding the presentation of research papers at scientific conferences are not shown on figure 13.1, although they are obviously related to those surrounding published journal papers. In order to add them in to the picture, the pattern of boxes and information flow lines in the bottom half of the diagram would need to be duplicated, with the box entries for *Referees & editors*, *Peer reviewed journal articles* and *Journal staff* replaced by, respectively, *Selectors & editors*, *Conference papers* and *Conference organisers*.

### 13.2 A variety of influences

The project confirmed the presence of many interacting influences on news coverage of medical research. The diverse motives, characteristics and contexts of a variety of organisations and individuals can all have an impact on information flows. Journalists and editors within news organisations, senior managers, media relations officers, researchers and "experts" within source organisations are all involved in exchanges of information which may affect the initiation or development of news stories. However, despite the potential involvement of a wide range of individuals, organisations and communication channels, there are certain norms and constraints which make it possible to identify common patterns of influence on information flows affecting media coverage of medical research. Sections 13.3 and 13.4 will briefly highlight some of the constraints and tensions which characterise the roles of press officers and journalists involved in communicating about medical research.



### 13.3 Press officers: working constraints and tensions

Press officers can be influential in bringing particular information to journalists' attention, and in framing the way in which it is presented, but their roles in the relevant information flows are constrained by certain characteristics of the organisations for which they work, and by the fact that they are liaising with journalists who themselves are subject to stringent working norms (see 13.4 below).

#### 13.3.1 Organisational characteristics and context

The general organisational characteristics which may constrain press office activities include: organisational mission and ideology; the prevailing attitude within the organisation towards the media; the position of the press office (formally and culturally) within the organisation; and the resources available for media relations. In addition, organisational policy may constrain whom press officers ask to serve as expert sources of comment for journalists, and the organisational "line" on particular topics may constrain what they say or do on particular occasions.

The organisational context is also an important influence on media relations, and press officers are generally sensitive to the environment in which they operate. In particular, they are aware that they are often competing for media access with other organisations working in their subject area, and that their competitors vary both in "strength" and in degree of hostility. Thus, while press officers might try to "drown out" (or at least counterbalance the messages of) outrightly antagonistic organisations, they might co-operate with more friendly rivals in planning their media relations activities.

#### 13.3.2 Juggling interests and values

Press officers have a fundamental tension in their role which arises from the fact that they act as "go-betweens" for their organisation and the media, or more specifically in the case of medical research stories, for researchers and individual journalists. While seeking to communicate the messages which their organisations wish to communicate in their preferred form, press officers must at the same time tailor these messages to suit the media channels they wish to use and to make them attractive to journalists.

In liaising between scientific researchers and journalists, press officers must typically seek acceptable compromises between two different sets of values and standards. They must find a balance between, for example, cautious statement and overstatement, between precise technical language and simple lay language, and between standards of

medical responsibility and news values. In news releases about medical research, press officers typically aim to present a story strong in news values, but at the same time to put boundaries on the types of conclusions which may be drawn, and to minimise the likelihood of journalists putting undesirable interpretations or angles on the information. The extent to which they include the detail and caution statements preferred by many scientists is limited by the need not to "bury" or "kill" a story for journalists. The press officers tended to view these tensions as a source of creative challenge, particularly when serious science, tentative conclusions or sensitive issues were involved.

### 13.3.3 Trade-offs between message spread and message standard

Press officers may experience (both for their own part and in dealing with other members of their organisations) tensions between a desire to reach a wide audience with a particular message and a reluctance to risk seeing that message "distorted", for example by information being presented with tabloid style sensationalism or by possible audience "misinterpretations". A common solution to this problem, used particularly for sensitive issues or serious but tentative research findings, is to target only specialist correspondents on broadsheet newspapers with information. If the concern that a message might be reported "inappropriately" by the media (by the organisation's standards) is particularly strong, a story might not be proactively offered at all.

When pushed to their limits, the aims of supporting the public right to know and of minimising the likelihood that the public will be misinformed or otherwise harmed by media presentations of information are not totally compatible. Most of the press officers interviewed, particularly those from charitable organisations, would generally prefer to see a few mistakes made by journalists, and possibly even a few "sensationalised" reports, than to see information about research withheld from the public completely. They saw their responsibility as being to provide balanced information to journalists, to note the status of the research under discussion, and to caution against over-interpretations.

The balance of press officers' compromises and their methods of dealing with the above tensions may be swayed by their own role perceptions and personal sympathies (which of course may be influenced by their interactions with others within their organisation and with individual journalists), as well as being influenced by their organisations' characteristics and contexts.



### 13.4 Journalists: working constraints and tensions

Medical correspondents receive information about medical research from a variety of sources. They appear to be quite free to choose from a variety of options and to proceed in a variety of ways. One journalist commented:

I think the arbitrariness (if that's the word) of what goes on is something that people don't take on board.

Journalists' individual interests, values and role perceptions *can* have an impact both on the information to which they are exposed and the way they make use of it. However, although journalists value their (perceived) independence highly, and although chance convenience may play a major role because of the time pressures under which they work, their decisions and actions are not "arbitrary". Journalists are subject to particular constraints and operate to a large extent according to certain norms. Their decisions and actions are shaped not only by their individual values, but by the constraints of daily news production, prevailing news values, their perceptions of editorial preferences, the nature of their subject matter and their relationships with their sources.

#### 13.4.1 A sense of responsibility

The staff journalists interviewed differed slightly in their values and role perceptions, but were all keen to "get things right", both in the sense of reporting what they were told accurately, and of reporting "sound" research without "over-sensationalising" implications. This could be difficult because of the complex nature of medical research and the journalists' inability to directly evaluate scientific information themselves. The journalists claimed to have a strong sense of responsibility when reporting medical information, and tried to avoid raising false hopes or anxieties, or otherwise having a detrimental impact on people's lives. As will be discussed below, the specialist journalists were personally largely sympathetic to the values of orthodox medicine and scientific caution.

#### 13.4.2 Constraints of daily news reporting

For daily news journalists, there is no escaping tight deadlines and space constraints, so there are limits to the amount of time and effort which can be invested in identifying and developing a particular story, and to the amount of information which can be included. In practice, specialist medical correspondents rarely need to hunt out stories for themselves, as they are supplied with information from many sources. The pressure they experience is that of having to make quick selections from the wide range of

potential stories available. The journalists value information which is conveniently packaged, including media relations material, which they generally expect to take into account the constraints under which they work and be well tailored to their needs.

Stories written by specialist news correspondents must compete for space in the newspaper with stories written by other journalists, and the competition is judged according to standard news values. For specialist journalists who have developed an understanding of science and medicine, who have a sense of responsibility about reporting medical stories, and who have come to share the values of their scientific and medical sources, this can create tensions. As science sympathisers with a burden of responsibility, they may want to report medical research stories in a way (generally cautiously) seen as responsible by their scientific and medical sources. As journalists, they are pressured to report stories high in human interest, and in a way (tending towards the sensational) seen by their editors as likely to grab the attention of readers. Thus specialist journalists have to strike a balance, to write responsibly about a piece of research, for example, but in a lively enough way that there is a "story" regarded by themselves and their editors as meriting publication in the newspaper. The latter requirement forms the bottom line: a story will not be published if it does not fall within the bounds of what journalists and editors recognise as news. The correspondents' journalistic experience and their perceptions of editorial preferences are likely to be the strongest influences on both story selection and article development.

#### 13.4.3 Evidence and authority

One of the major constraints noted by specialist medical correspondents was their inability to evaluate for themselves the quality and correctness of evidence and argument presented in journal articles (and in the other sources of medical research information which they reported). None of them claimed any sophisticated knowledge about the merits or otherwise of different research methodologies and approaches. In the absence of their own critical appraisal abilities, they relied heavily on the peer review process and on the opinion of qualified medical experts to guide them in the selection and development of particular stories.

Being unable to ascertain "the truth" on a medical research matter by weighing up the evidence, journalists have to rely on the say so of figures of authority. Pragmatically, they have to assume that the peer review process will filter out inadequate research reports and that the medical expert(s) they talk to (and the weight of opinion they



represent) are correct. The rare occasions on which the journalists interviewed had been "caught out" by failures of their sources (as, for example in the Bristol Cancer Help Centre case) may have made them slightly more cautious, but they had not developed any other ways of evaluating the information they reported. The journalists claimed to tend to "go with the weight of medical opinion" in their reporting. They made orthodox medical opinion the judge of what was correct, even on subjects such as alternative therapies, which could be argued to be outside its domain.

By using the peer review process in this way, relying on orthodox medical opinion and explicitly attributing information to sources recognised to be authorised knowers, the journalists shield themselves from excessive blame if the stories they report are found to be flawed. Expert sources who "should know" can be more justifiably criticised for getting something wrong than the journalists who report their views.

#### 13.4.4 Convergence with medical sources

The journalists interviewed all recognised the tensions created by differences between news values and scientific values, and while noting that anecdotal stories and fringe or maverick viewpoints would usually make for better copy from a journalistic viewpoint, they all claimed to try to adhere to responsible scientific standards, implying that they would only report stories which might rock the medical boat if these seemed clearly justifiable as in the public interest. The specialist journalists writing for quality newspapers shared, to a large extent, what they assumed to be doctors' views about the need to be cautious about research results and their possible implications. However, although they were apparently keen not to go too far towards the sensational, they still sought stories which would generate some kind of "gosh" reaction and ultimately satisfy the journalistic criteria for news.

In as much as specialist journalists tend to adopt the values of mainstream orthodox medicine and rely on medical professionals for advice and comment, it could be argued that there is a fair amount of convergence between them and their medical sources. The staff specialist journalists interviewed certainly did not view their reliance on medical authority when reporting medical research as problematic. The issue of "medicalisation" of situations and problems was not mentioned. Doctors and scientists were not generally treated as sources perceived to have particularly detrimental vested interests, and their motives were generally regarded as respectable. However, the journalists were not unwilling to report on the bad pennies of the medical profession, nor to expose

problematic incidents. They recognised that there were a few "quacks" with medical qualifications and research publications to their names, but were generally confident that they and/or their trusted sources could spot and avoid these exceptional cases.

#### 13.4.5 Tensions regarding media relations

Journalists' opinions of different source organisations are quite influential in their story selection and development decisions, affecting the sympathy with which they receive proactively offered information, the likelihood of them approaching a particular organisation for information or comment, and the way in which they use information when constructing a story. One group of sources was generally very favourably viewed and treated by the specialist news journalists. Evidence from the interviews with journalists and press officers, and from the content analysis study showed that certain medical research charities<sup>1</sup> were held in high regard. The specialist medical journalists tended to trust information from these sources and mentioned "getting on well with" their media relations personnel, positively "wanting to help" with causes which they were in sympathy with, and making regular use of their spokespeople and experts, as well as their press relations material. One journalist revealed a naive assumption that the well established medical research charities were "objective" sources of information. However, the journalists were generally slightly uneasy about their tendency to treat these organisations preferentially because it went against the grain of striving for journalistic independence and balance.

#### 13.5 Does media relations work?

Various organisations with an involvement in medical research attempt to influence the information to which journalists are exposed, some investing substantial effort and resources into doing so. There is strong evidence in particular cases to suggest that their efforts are (at least from the point of view of those organisations) justified.

The effectiveness and success (or otherwise) of media relations activities could be judged according to various criteria. The interviews with press officers indicated that they tend to judge mainly on the criteria of positive media mentions for the organisation and positive coverage of their work. They were concerned that research based stories

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1. The extensive use made of charitable sources is probably peculiar to British journalism, because a relatively large proportion of British medical research is charitably funded.



originating in their organisations were reported in an acceptable fashion (i.e. were not sensationalised), but securing informative coverage of a medical research report seemed to be a secondary concern to that of getting a story which acknowledged their organisation's involvement in the (good) research into the media in the first place. Increasing public awareness of their organisation and its activities was apparently a more immediate priority than improving public understanding of more general medical issues.

For the journalists interviewed, media relations activities could be viewed as effective if they helped them (without "unduly" influencing them) to write "good" news stories (i.e. ones which, among other things, would appeal to their editors and be found interesting by their readers) in time to meet deadlines. The compatibility of the specialist journalists' and their preferred press officers' views on what constituted "good" media relations was striking. The preferred press officers shared the journalists' perceptions of news values and of what different journalists needed. Their roles and actions appeared to have evolved symbiotically.

Other groups might prefer to judge success by different outcomes, for example whether media relations activity produces "more accurate", "more informative" news reports (although judgements about accuracy and quality are inevitably value laden), whether it helps shift the balance of type of topics covered, or whether readers' knowledge improves more after reading news reports influenced by media relations efforts.

#### 13.5.1 Factors determining success (as judged by press officers)

Nelkin (1987) noted that the constraints of science journalism in the United States "give an unusual degree of power to those sources who are best organised to provide technical information in a manageable and efficiently packaged form". A similar situation appears to exist in the UK regarding information about medical research. Well respected organisations with slick media relations operations can, by tailoring their information to suit journalists' needs, be quite influential in shaping media coverage.

The journalists interviewed spontaneously mentioned three major charities (BHF, CRC, and ICRF) as organisations with good media relations arrangements which they were happy to make use of. The content analysis study, despite its focus on news articles based on information from the *BMJ* and *LAN*, seemed to confirm the journalists willingness to use information supplied by these organisations: journal articles which had appeared on news releases from organisations favoured by journalists featured

prominently among those reported; several charitable research funders were mentioned in news reports based on *BMJ* or *LAN* articles even though their names were not strictly necessary to the story; and, in keeping with the journalists' comments that the "good" charity press offices were often asked to identify experts on particular topics, representatives of these organisations were prominent among the experts whose comments on journal article reports were quoted.

In addition to the highly favoured organisations, several other statutory bodies, professional organisations and charities were mentioned by journalists, albeit less frequently, in a positive light. These were basically respected by journalists and were generally trusted as sources of information. The journalists used the press offices of different organisations in different ways, according to their perceived strengths. For example, OPCS officers would be asked for help in retrieving background statistical information, DH press officers for explanations of policy, and medical research charities for attributable expert contacts. However, most press offices (or press offices in general) were spoken of unfavourably and journalists claimed to use them cautiously, if at all.

"Good" media relations, as judged from the point of view of press officers are dependent on the whole organisation. However, both press officers and journalists regarded the ability of press officers to understand and provide what journalists needed as the main factor determining whether or not an organisation's media relations would be successful, and they agreed that press offices were most likely to come up to standard if at least some of the staff had practical journalistic experience. Previous practical journalistic experience could also help press officers maintain valued "good relations" with working journalists, because it tended to encourage overlaps in their social circles.

The following list summarises the factors which increase the likelihood of "success" for media relations efforts (as judged from an organisational perspective):

1. The subject of media relations activity is one with which the organisation is recognised to be involved (preferably as a key player).
2. The organisation as a whole is regarded as credible by journalists, and preferably has the sympathy of journalists. This is more likely if the organisation is from the charitable or public, rather than the commercial sector.
3. The press officers are generally aware of journalists' needs and have a reputation for responding to the particular needs of individual journalists (i.e. the press office is seen as competent and helpful by journalists).



4. The media relations efforts of the organisation are seen as appropriate by the journalists (i.e. the information provided is of interest to them and is provided in easy to use formats at appropriate times).

5. The whole organisation is generally media aware and willing to co-operate with the press office and engage with journalists.

The sophisticated media relations activities of respected organisations can be regarded as worthwhile, in that the organisations and their favoured experts fairly frequently (as a group) have opportunities to influence news content and to shape at least some news reports. However, the extent of their possible influence is limited. While journalists' sympathies affect their tendencies to select or reject particular stories, to develop articles according to particular frames, and to give voice to particular views, they are ultimately constrained by accepted news values and by the opinions and decisions of their editors. An article tipped heavily towards the preferences of the source and/or the specialist journalist without careful consideration of general news values and the interests of the newspaper and editor(s) would run a serious risk of being spiked.

### 13.6 Journal articles as sources of news

#### 13.6.1 The promise of journal articles

Journal articles hold much promise for journalists because they are basically self-contained "stories", they contain "new" information, their publication dates provide news pegs, and those which have been peer reviewed can be pragmatically assumed likely to be trustworthy sources of information. Prestigious journals may be treated as authorised knowers in their own right, and some, including the *BMJ* and *LAN*, are regularly used as sources for news articles. Journalists are also more likely to find researchers willing to discuss their work once it has been published and they no longer have anything to fear from journals' policies against prior publication.

There are also reasons why media relations activity about medical research often stems from journal articles. It is quite easy for organisations to set up internal systems to ensure that the press office is alerted to forthcoming publications, and researchers are more likely to co-operate with media relations efforts once their paper has been published (again because they no longer fear falling foul of the journals' policies against prior publication). The peer review process can serve as a "quality assurance" filter for press officers, and the journal's stamp of approval in publishing the article lends weight to the research for which they seek publicity. Timing media relations activities to

coincide with publication of a journal article is thought by press officers to increase the likelihood of a piece of research being reported because: it provides journalists with a "today" news peg; the journal's prestige adds credibility to the research; the organisation's media relations efforts might be reinforced by those of the journal; and journalists might find the article themselves while scanning the journal, so media relations material could encourage them to develop a story they had (as they preferred) come across initially for themselves. If research is in some way politically sensitive, organisations sometimes prefer it to be reported from an independent journal source than direct from themselves.

### 13.6.2 The problems of journal articles

There are problems associated with the use of journal articles as news sources, however. They are not always easy for non-scientists to follow, and journalists may pick up inappropriate messages or make mistakes when reporting them. The statements made in journal articles are not always quotable in news reports, and journalists may feel a need to seek clearer, more concise or "stronger" statements from authors. If journalists seek the comments of other experts about the "latest" paper, they may well find that the people they approach have not yet seen a copy of the paper. In seeking verbal comment, journalists lay themselves open to being misled by those (probably few) researchers who are either unscrupulous, over-enthusiastic or misguided in their claims.

The use of the peer review process as a quality threshold or licence to disseminate information to the public also has its problems. Journal referees do not set out to vet material for public consumption, but rather to assess its merit for publication for a peer audience. The research papers published in peer reviewed journals vary in their quality: reviewers and editors may use different criteria and standards in their judgements; referees do not always identify the flaws in research papers; and the play of chance means that even rigorously conducted research studies may come up with "the wrong" answer to a particular question. Single research studies can rarely provide conclusive evidence on which medical practice should confidently be based, particularly if they are conducted at an early stage of research into a problem or are small in scale. They more usually provide a contribution to the knowledge on a particular topic.

Opinions as to whether, in what form and when information from research projects is suitable for wider publication in lay fora, depend on subjective, value laden judgements. Current practice seems to reflect belief that, on balance, the peer review



process used for journal publication is the best practical quality control filter and safeguard for people communicating about research to the public.

### 13.6.3 Alternative sources, timings and control

The use of peer reviewed journal articles as sources for news stories about medical research is widely accepted as the norm by press officers and specialist journalists in the UK. As long as researchers need to publish their work in peer reviewed journals, and as long as these journals discourage pre-publication publicity for findings and implications, it will probably continue to be the norm. A casual consideration of French media stories about medical research suggests that there, where peer review systems are generally less rigorous, and where the journals do not tend to have such strict policies against prior publication, journalists interview researchers at various stages of their work and report on it when it seems to them to be interesting.

Alternative information flows to those based on peer reviewed journals are conceivable (and are to a small extent operative) in the UK. Some researchers are apparently keen to bypass the normal channels of scientific and medical communication. Lievrouw (1990) suggested that "more and more researchers are going directly to the popular media with their findings, especially in fields where the intellectual and economic stakes are greatest".

In 1993, Professor Vijay Kakkar, an eminent researcher, published his "scientific rationale" explaining the health-giving effects of cold baths in *The European* newspaper. He defended his decision to publish in this way by lamenting the time it took to get the results of his previous work incorporated into medical practice, and by arguing that the information in the news article was "for the benefit of the people" and could not be dangerous. He argued that because the therapy did not involve drugs, and because it had been practised for years, there was no need to be cautious and wait for evidence about possible side effects from large scale trials. He did not want people to be deprived of information which they could use to improve their health while journal peer review processes took their slow course (and possibly demanded further evidence). Other UK quality newspapers picked this story up in a negative light, if at all, and noted that the weight of medical opinion is opposed to the practice of publicising research results before they have been published in peer review journals (see e.g. Butcher, 1993). The specialist correspondents, by spurning or disparaging the story, again apparently indicated their agreement with the weight of medical opinion (and the different status

which they attached to medical journals and lay newspapers). It could also be said that they took the safe option. If journalists report medical research stories given to them directly by researchers, they lose out not only on the independent expert checking system (they would presumably need themselves to identify and approach other experts for second opinions on the story), but also on the means of absolving themselves of blame should a piece of research turn out to be of dubious quality.

Doctors and scientists often express concern about the accuracy (or perceived lack thereof) of media news reports about medical research reports, but there have been few practical suggestions as to how news reporting can generally be improved. Peto (1992) suggested that it was inevitable that misleading stories would continue to appear in the media, but that these were mostly on "minor" topics and would thus have a limited impact. Since censorship is generally seen as undesirable and freedom of the press would seem to imply freedom to make mistakes without being excessively criticised, he felt that a strategy to protect the public from inappropriate media coverage of health issues should focus on just a few matters of substantial medical importance. Peto recommended that on a limited number of "special" subjects, journalists should not write stories in opposition to the mainstream of scientific opinion without first checking them carefully with a few mainstream conventional scientists. His priority topics were smoking, AIDS, blood cholesterol (and possibly blood pressure) and the ethics of randomised clinical trials. He recommended that:

The mainstream of medical research in these four areas should not be contradicted unless the science writer has checked carefully that there are good reasons to do so that can survive "conventional" rebuttal.

Obviously, as understandings and consensus shift and "new" problems come to head the public health agenda, different topics might be considered for special status.

The journalists interviewed in practice to a large extent already adhered to Peto's suggestions, being apparently unwilling to give too much of a say to "cranks" or to contradict their trusted sources. Nonetheless, they would probably object to being "obliged" by external agents, however respected in medical and research circles, to use particular sources or report particular viewpoints. Peto's proposals to restrict the sources used and viewpoints expressed are problematic not only because they would infringe on press freedom or journalistic independence (as far as these exist), but because of the way in which the restrictions would be set. The areas singled out for special treatment have been judged by Peto to warrant particularly cautious/controlled journalism, but his right to judge, either the priority of different subjects or the nature of the information



regarded as correct is contestable. The problem is again one of authority, given that prioritisation is largely subjective and the evidence on many problems is inconclusive and tentative.

An alternative way of restricting the viewpoints reported by journalists would be to recommend that in cases where the weight of evidence, as determined by systematic research reviews, was clear, "one off" studies or viewpoints which contradicted that evidence should not be reported. However, given that science is always provisional, strait jacketing news content even in this way is inadvisable, and efforts might be better directed to getting journalists to include (and editors to retain) information about patterns of expert opinion, and, more importantly, the nature of the evidence involved.

### 13.7 Pressures and patterns in the reporting of medical research

#### 13.7.1 Pressures to simplify and exaggerate

At all stages in the transfer of information from research fora to lay media, there are pressures to simplify and to some extent exaggerate potentially newsworthy findings. In writing up papers, researchers are trying to match journals' values of significance, interest and clarity. In preparing news releases or news conferences, press officers are trying to highlight the importance of a particular piece of work and to present it in a form appealing to journalists, editors and their audiences. In writing news articles, journalists are conscious of needing to construct stories strong enough for the editor to print and likely to maintain reader interest. Headline writers, the last in the chain, are trying to produce a short sequence of words which will grab readers' attention.

There are some "cautionary" pressures which might serve to counteract the above. Most press officers and specialist journalists have a sense of responsibility and claim to try to avoid arousing unjustified hopes or anxieties. Some scientists and doctors are particularly wary when they talk to journalists. These anti-sensationalist tendencies are thought, by press officers and journalists alike, to be stronger in information flows affecting quality news outlets than those affecting tabloid newspapers, but even in the context of broadsheet reporting can only have a limited impact, in that information presented in too cautionary a fashion is unlikely to be presented at all.

#### 13.7.2 The influence of media relations

Media relations activity influences lay news reporting about medical research in three main ways: it helps determine which research findings journalists find out about and may

thus influence their story selection decisions; it shapes the way in which information is presented and may thus affect story framing and development decisions; and it impacts on the selection of authorised knowers and thus on the viewpoints which are publicised.

Journal articles are more likely to come to journalists' attention if the journal organisation and/or the research funding organisation actively alert them to them. Specialist journalists regularly scan new issues of the major prestigious general medical journals, and they appreciate the credibility lent by the titles of these journals, but they are less likely to come across articles in specialised journals unless they are given media relations material about them.

This project was not designed to be able to show whether particular news releases encouraged journalists to write up particular journal articles as news stories. The content analysis study found that 80% of the journal articles reported by newspapers on the journal embargo date had been included on a news release issued by the journal, and these journal articles were reported on average by more newspapers than those which were reported at all but had not been included on a journal news release. These associations are probably at least partly due to journal staff using similar news values to journalists to decide which articles to summarise on the news release. Journal articles for which news releases were issued by funding organisations were also reported on average by more newspapers than most.

The press officers who use news releases and/or press conferences to alert journalists to information published in journal articles are key players in the transformation of information. In their efforts to provide journalists with information that "suits their needs" and to encourage the production of news articles which are pleasing to the source organisation, they tend to change or slant the emphasis of the information which appeared in the journal article in the following ways: translating medical jargon into plain English; adding caveats and warnings against over-interpretation (although not to the extent of killing the story); adding explanatory information about the background and implications of the research; emphasising the name and involvement of the funders of the research; adding quotable quotations; and shifting the style of writing from that of a journal article towards that of a news article. Textual evidence suggested that information included on news releases issued by research funding organisations was used in the development of certain news articles.

In cases where journalists use sources in addition to the original journal article to write a news story (the content analysis study suggested this was just over half of the *BMJ* and



*LAN* based stories), news releases and news conferences are the most likely sources. Representatives of organisations favoured by the journalists and known to pro-actively offer to supply "expert" sources of comment accounted for quite a few of the (relatively rare) reported comments from non-author sources. In several cases, the non-author experts quoted were affiliated to the organisation which had funded the research. Press officers seeking media coverage of a particular article can "save journalists the effort" of identifying sources of comment for themselves, and thus encourage further media access for their organisation's viewpoint. Indeed, they may contribute to the tendency of news articles to be uncritical of the research they report.

### 13.7.3 The influence of news values

The topics and features which make some medical research journal articles more "newsworthy" than others are generally in keeping with widely recognised news values. Journal articles dealing with common and fatal diseases, "key" diseases (including current media favourites), rare but "quirky" diseases, or diseases with a sexual connection are quite likely to be reported. Applied research with obvious applications or implications is more newsworthy than basic research, and journalists are usually tempted by research which addresses a controversial topic or has controversial findings. Although large scale research projects (and major original papers) are normally more newsworthy than more modest ones, individual case reports may be reported in national newspapers if they have a high human interest value.

There was quite a nationalistic approach to the reporting of medical research. The journalists were more willing to trust British scientists and doctors than American ones, and would often seek British comment before reporting American research, which they sometimes suspected of being a bit wow-whee. Foreign based research reported in the *BMJ* and *LAN* was less likely to be picked up in news stories than that which had at least some British authors, and this preference for British sources probably existed even when those articles pertaining to diseases or problems rare in Britain and thus lacking in cultural proximity were accounted for. The news value of "proximity" was thus applied to the place(s) where the research was done, and not just to the place(s) where it was likely to have implications. Similar phenomena have been noted in news reports about high temperature superconductivity (Felt, 1993).

### 13.8 The construction of expertise

Medical knowledge does not come in the form of all-enduring infallible statements, and scientists and doctors often disagree about the results, interpretations and implications of medical research. It does, therefore, matter who journalists use as expert sources, particularly when reporting on the latest findings which are perhaps more vulnerable to dispute than relatively well established knowledge. This raises questions about how individuals are identified and selected as experts for the media: who confers expert status, on what criteria do they base their decisions, and how does this affect the range of individuals and viewpoints which appear in the media? A brief discussion about the construction of expertise in the context of medical research news in the UK quality press will highlight again some key features of the information flows in this context.

Journalists, media relations personnel of source organisations, and individual doctors and scientists tend to have different priorities and interests when considering the desirable characteristics of individual sources of attributable comment for the media, although they are likely to agree that subject expertise and communication skills are important. In different circumstances, these groups may have different involvements in the identification and selection of experts.

#### 13.8.1 The use of experts in news stories

Journalists use experts in two main ways: as advisors (providing background information and helping journalists to understand and assess journal papers, the work of unfamiliar research teams and so on), and as sources of attributable comment, either on their own work or that of others. The requirements of "expertise" are similar for the two roles, but the visibility of sources who provide attributable comment brings more considerations into play in their selection. It is visible expertise which will be the focus of attention here.

All news stories depend for their credibility on information being attributed to authorised knowers. Journalists need to be able to show that the information in their articles has been obtained from sources which are widely recognised as competent to know about something. The content analysis study revealed that, in the case of journal-derived news articles about medical research, authorised knowers need not necessarily be named individuals (only 50% of news articles named at least one author), but could be organisations (77.8% named an institution connected with the reported research) or the journal itself (named by 88.8%, and the sole mentioned source of authority in



several). Individual or corporate experts were used to say that something was so, and sometimes, in accordance with the requirement that both sides of a story be reported, to say that it was not so.

### 13.8.2 Who is likely to become a media expert?

Obviously subject expertise and communication skills alone do not make someone a media expert. Generally speaking, the subject(s) and project(s) in which they are involved must be of interest to the media and to lay audiences, and they must be made known to and contactable by journalists. Factors which increase an individual's chances of being asked to serve as an authorised knower by journalists writing about medical research include:

#### 1) Affiliation.

Researchers affiliated to large, well-known, non-commercial organisations which are proactive in media relations and whose press officers have good relations with journalists, are more likely to be contacted and used by journalists.

#### 2) Titles, formal qualifications, position and seniority.

Journalists tend to prefer, and press officers to preferentially recommend, higher ranking doctors and scientists.

#### 3) Previous media exposure.

Individuals with previous media experience theoretically have the advantage of familiarity to the audience and of being more practised at providing appropriate comment. Press officers can be more confident about using individuals whom they have seen perform comfortably and competently before. Journalists trying to identify individuals from their own contacts books, cuttings or other media colleagues are most likely to come across individuals who have made previous media appearances. The one tendency to counter repeated use of the same individuals is that press officers often attempt to shield experts from too many media approaches. However, they also tend to give national broadsheet journalists preferential access.

#### 4) Conformity.

Despite the potential media appeal of cranks and controversies, medical correspondents tend, for reasons of responsibility and possibly of source loyalty, to stick to orthodox medical opinion and preferably to individuals respected by the majority of their peers. Journalists tend to approach fairly mainstream organisations, and from these, press officers tend to recommend senior well established and

politically sensitive individuals who are likely to toe the organisational (and orthodox medical) line on anything remotely sensitive. They would be extremely unlikely to put forward anyone thought likely to say something outrageous in public.

**5) Being well known.**

Individuals familiar to press officers or journalists are considered more easily approachable. Also, journalists might prefer sources well known to (and positively respected by) the medical profession, because they could enhance the status and credibility of their articles.

**6) Willingness to speak with the media.**

Press officers tend not to force individuals who are particularly reluctant to talk to journalists, and might also positively prefer to recommend to journalists and select for press conferences those who show willing. Willing individuals are also obviously more likely to offer themselves, either for inclusion on available lists of expertise or directly to journalists.

**7) Convenience: being contactable and available.**

Individuals who are easily contacted are more likely to be reached in time to meet journalists' deadlines, especially if they are to be approached by the press officer first. Proximity to London also makes individuals more likely to be able to oblige with face to face interviews as necessary, and to attend press conferences without too much disruption. Convenience to the press office might also affect how well known a researcher is to the press office. Being in the right place at the right time can be an important factor influencing the likelihood of someone becoming a media expert. (It is worth noting at this point that junior doctors and scientists are likely to have to move frequently from contract to contract and place to place, so journalists are often better able to keep track of more senior people).

**8) The angle from which an individual is likely to speak.**

If journalists want to choose a voice which will carry the desired message, they will seek an individual or organisation known to adopt the required stance.

The content analysis found no patients or consumers serving as sources of comment on research published in journals. Although the journalists said they would occasionally use individual case histories as vehicles through which to tell a story, this was not seen in connection with *BMJ* or *LAN* articles.



### 13.8.3 Who influences the identification and selection of experts?

Experts are identified by or for journalists in different ways. Contacts may be initiated by the expert, the journalist or a third party, typically a press officer in an organisation to which the expert is affiliated or another expert referral service.

Journalists reporting on a particular piece of research would tend to regard a decision to approach a (senior) member of the team involved for comment from the "author" perspective as obvious. Similarly, for stories criticising a product or service, the choice of a "defence" expert (or at least of the organisation from which an individual spokesperson could be drawn) might appear straightforward. In some other cases, typically those involving pro-active media relations activity, non-author experts would also be identified for journalists along with a story. News releases, for example, might provide names and quotations, while press conferences might offer one or more experts ready to provide comment.

For some stories, especially those associated with long term issues, there might be a large number of potentially suitable authorised knowers but no one individual who was recognisably a "must". In these cases, journalists might recall appropriate individuals from memory or from the pages of their contact books, or they might identify new contacts by asking colleagues, combing media archives, or consulting relevant organisations. For journalists working to tight deadlines, the opportunity to have someone provide them with a suitable expert can be extremely appealing. Trusted press officers known to be willing to put journalists into contact with suitable individual experts are regularly asked to do so. The effort is an investment for them: such media relations activity can be quite "successful" in shaping press coverage to an organisation's advantage by securing opportunities to influence the selection of experts quoted and thus the viewpoints aired.

Referral services tend to work from pools of individual experts, which are composed in various ways, each with its own limitations in scope and quality. They might try to influence journalists' selections in various ways. The Media Resource Service, for example, tries to offer journalists a variety of viewpoints and help them select from a balanced group of experts. On the other hand, referral services associated with special interest organisations tend to recommend individuals with a particular affiliation, viewpoint or stance. Although the subset of "experts" from which journalists are able to select may thus be limited and possibly biased, ultimately it is they who decide whom to contact from the names known or made known to them. Of the experts whom they

try to contact, use can only be made of those who are available and able to provide information in time to meet the deadline, but journalists can then decide whether or not they quote these sources, and if they do, in what context they report their comments (see Clayman, 1990). Thus, while the construction of medical and scientific expertise in the news media involves various players, it is the journalists who add the final touches to the picture.

### 13.9 Recommendations for future research

This project has concluded that the information flows about particular medical research topics, events and issues are affected by a wide variety of influences, but that certain normative values, role constraints and tensions prevail. These have a major impact on the relationships between key players and strongly shape patterns of news reporting. In this final section, I will highlight, under the headings of media relations, specialist journalism and audiences, the areas which I think should be priorities for future research, and will also briefly comment on other ways in which the work of this project could be extended.

#### 13.9.1 Media relations

Two areas were identified which deserve the serious attention of future research. Firstly, the influence of corporate culture on information flows and hence on media relations needs exploring in more detail. There are important questions to be asked about the relationship between researchers' attitudes to the media (and more generally towards communicating with lay audiences) and their working contexts, and also about the effectiveness of different approaches within organisations or professions to actively shape corporate culture and to encourage activities intended to further public awareness, understanding or behaviour.

The second area which could fruitfully be researched is the effect of inter-organisational competition on media relations. The hostile competitive and mutually beneficial collaborative activities of press officers in different organisations seem to merit further attention, as does the role of journalists faced with such competition. A focus on a particular topic or issue could be used to provide a detailed case study of the roles of individual players and of negotiations between them.

The work of this project could also be extended by more detailed studies of press officers' decisions and activities. During the interviews for this project, press officers



spoke generally about their work and provided selected examples of relevant decisions and actions, but the information they gave was obviously limited by their selective recall and their perceptions of situations and events. Ethnographic case studies could reveal more faithfully and in more detail the behaviour of these key individuals, particularly in their interactions with others. Careful case studies of the sources used by press officers, and of their information management techniques would also be interesting, and would be best if informed by a consideration of the press officers' background experience and training.

### 13.9.2 Specialist journalism

The project tended to confirm that in many ways, specialist medical correspondents work under similar conditions and behave similarly to other specialist journalists. However, the journalists' acknowledged respect for and reliance on orthodox medical opinion, and their close convergence with press relations officers from certain charitable sources are worthy of note. As was the case with media relations, a closer investigation into the culture of the news organisations and competitor-colleague groupings in which journalists work is warranted. Also, the patterns of integration of individual journalists into social (leisure) and working circles involving other journalists, media relations personnel and the various people who might serve as their "expert" sources would also seem to merit attention.

The interviews with specialist correspondents were subject to similar limitations to those with press officers, and some were additionally limited by time. The comparison of journal articles, news releases and news articles provided useful insights into the information flows about published research, but it is difficult to establish from the texts alone exactly which sources were consulted by journalists in the development of particular news articles. Detailed observational studies could provide some more detailed insights into influences on journalistic activity, and it would be worthwhile to spend time with individual journalists, particularly while they were working through their daily post, and asking them to talk through their decisions. The work of Stocking and La Marca (1990) could usefully be followed up with a study specific to medical specialists, and it would be useful to establish which sources journalists actually approach, the proportion of their telephone calls in search of expert comment fail, and the proportion of their interviews and interview material which is used. Freeth (1993) commented that he

learned much about his own working behaviour from Silverstone's (1985) detailed observation study of his production of a *Horizon* documentary. Specialist news correspondents work on many small-scale projects in comparison to documentary producers, but their work should still be amenable to study by (participant or shadowing) observation techniques, with the proviso that the possibility of a Hawthorne type effect occurring during an investigation of selection decisions is high.

Other ways in which the work of this project could be extended include explicit comparisons between different specialist journalists and/or their newspapers (it would be particularly interesting to explore how different journalists make decisions and take actions regarding particular news conferences or news releases), and studies of information flows affecting coverage of medical research by the tabloid press.

Options on research methods into journalistic practice might be limited by the subjects. As Nicholas et al (1987) commented, journalists "do not make good guinea pigs; their working days are full, pressurised and very unpredictable". Thus for example, a trial of log-keeping "simply could not be maintained in the frenzied atmosphere of the newsroom", although feature page editors might be slightly more amenable to such alternatives.

### 13.9.3 Audiences

During the interviews, both press officers and journalists frequently explained their decisions and actions in terms of how they anticipated the audience would read and react to certain information. Given the lack of real understanding of the effects of different messages on different audiences, the need for empirical research in this area is pressing, and should be useful to practitioners as well as academics.

Kitzinger (1990) used a variety of techniques with both individuals and pre-existing focus groups to investigate audience understandings of AIDS media messages. Her approaches could fruitfully be replicated for messages both about other diseases and of particular types (e.g. "breakthroughs" in medical research, stories reporting newly identified risks, and medical mishaps).



## Appendix 1 - Journals participating in preliminary questionnaire survey

|   |   |
|---|---|
| The AIDS Newsletter                               | 2 |
| Archives of Disease in Childhood                  | 1 |
| British Dental Journal                            | 1 |
| British Heart Journal                             | 1 |
| British Homeopathic Journal                       | 2 |
| British Journal of Addiction                      | 1 |
| British Journal of Anaesthesia                    | 1 |
| British Journal of Cancer                         | 1 |
| British Journal of Clinical Psychology            | 1 |
| British Journal of General Practice               | 1 |
| British Journal of Obstetrics and Gynaecology     | 1 |
| British Journal of Psychiatry*                    | 1 |
| British Medical Journal*                          | 1 |
| Community Care                                    | 2 |
| Disability Now                                    | 2 |
| Doctor  | 2 |
| Drug and Therapeutics Bulletin*                   | 2 |
| General Practitioner                              | 2 |
| Health and Fitness                                | 2 |
| Health Education Journal*                         | 1 |
| Health Service Journal                            | 2 |
| Hospital Doctor                                   | 2 |
| Journal of Ageing and Health                      | 1 |
| Journal of Alternative and Complementary Medicine | 2 |
| Journal of the American Medical Association       | 1 |
| Journal of the Medical Defence Union              | 2 |
| Journal of Public Health Medicine                 | 1 |
| Journal of the Royal Society of Medicine          | 1 |
| The Lancet  | 1 |
| MRC News*   | 2 |
| Nature  | 1 |
| New England Journal of Medicine                   | 1 |
| New Scientist                                     | 2 |
| Nursing   | 2 |
| Nursing Times                                     | 2 |
| The Pharmaceutical Journal                        | 2 |
| Physiotherapy                                     | 1 |
| Practical Caring                                  | 2 |
| The Practitioner                                  | 2 |
| The Professional Nurse                            | 2 |
| Pulse   | 2 |
| Social Science and Medicine                       | 1 |
| Therapy Weekly                                    | 2 |
| This Caring Business                              | 2 |
| Which? Way to Health*                             | 2 |

\* Questionnaire completed during interview with a journal representative.

1 Peer reviewed journal of primary research

2 Secondary journal (e.g. professional update magazine, consumer magazine).

Appendix 2

PRESS COVERAGE OF JOURNAL ARTICLES

This questionnaire forms part of a doctoral research project at The City University, on "Information flows affecting health coverage in the press". It is intended for the person responsible for press relations at the journal specified.

Please complete the questionnaire as fully as possible. It will take about 10 minutes.

An address label and postage are provided for the return of the completed questionnaire. Please enclose any press releases as requested in the covering letter.

Any queries should be addressed to Vikki Entwistle, 35, Burma Road, Stoke Newington, London, N16 9BH.

Thankyou for your help!

+++++

Journal: \_\_\_\_\_

1. Please tick the statement which best describes the distribution of the journal to journalists writing for national newspapers:

Every issue is sent free to all national newspapers \_\_\_\_\_

Every issue is sent free to "quality" national newspapers \_\_\_\_\_

Every issue is sent free to journalists who request it \_\_\_\_\_

Selected issues are sent free to all national newspapers \_\_\_\_\_

Selected issues are sent free to "quality" national papers \_\_\_\_\_

Specific issues are sent free to journalists on request \_\_\_\_\_

Journalists only receive journal by normal subscription arrangements \_\_\_\_\_

2. Is the journal sent to journalists in advance of the general mailing?

YES/NO \_\_\_\_\_

If yes, does an embargo apply until publication date?

YES/NO \_\_\_\_\_



3. Are journalists alerted to articles thought newsworthy?

YES/NO \_\_\_\_\_

If no, please go to question 7.

4. Which of the following methods have been used to alert journalists in the last six months? (Please tick all that apply)

Press release by post \_\_\_\_\_

Press release by fax \_\_\_\_\_

News agency wire release \_\_\_\_\_

Press conference or briefing \_\_\_\_\_

Telephone call offering early or exclusive information \_\_\_\_\_

Telephone calls to several appropriate journalists \_\_\_\_\_

Would a copy of the full text of the article accompany a press release?

YES/NO \_\_\_\_\_

5. Who selects the items for such treatment? (Please give job title)

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6. Who writes any article summaries or press releases? (Please give job title)

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7. How many enquiries concerning journal articles do you usually receive from journalists writing for national newspapers?

None \_\_\_\_\_

1 or 2 \_\_\_\_\_

3 or more \_\_\_\_\_

8. Do you receive more enquiries when you alert journalists to particular articles?

YES/NO \_\_\_\_\_

9. Do you put journalists in contact with the author concerned?

YES/NO \_\_\_\_\_

10. As far as you are aware, in the last six months, have any authors of articles in your journal sought media publicity for their paper of their own accord?

YES/NO \_\_\_\_\_

Appendix 3

Medical Journals and National Daily Newspapers

This questionnaire forms part of a doctoral research project at The City University, on "Information flows affecting health coverage in the press".

It is being sent to the medical, health and scientific correspondents of national daily newspapers as part of a preliminary investigation into how information from medical and health-related journals is transferred to the wider public domain.

Responses will be reported anonymously unless specific permission for attribution of quotes is agreed. Names appear on the first page to facilitate follow-up queries and to identify non-returns.

Please complete the questionnaire as fully as possible. It will take about 20 minutes.

An address label and postage are provided. The completed questionnaire should be returned by December 15th 1991.

Any queries should be addressed to Vikki Entwistle, 35, Burma Road, Stoke Newington, London, N16 9BH.

Thankyou for your help!

+++++

Journalist \_\_\_\_\_ Newspaper \_\_\_\_\_

+++++

1. For the following journals, please tick the column which most appropriately describes the frequency with which you consult a NEW copy of the journal.

|  | Every<br>Issue | Quite<br>Often | Rarely | Never |
|--|----------------|----------------|--------|-------|
| British Journal of<br>General Practice | _____          | _____          | _____  | _____ |
| British Medical Journal                | _____          | _____          | _____  | _____ |
| Health Service Journal                 | _____          | _____          | _____  | _____ |
| Lancet                                 | _____          | _____          | _____  | _____ |
| New Scientist                          | _____          | _____          | _____  | _____ |
| Which Way to Health                    | _____          | _____          | _____  | _____ |



2. Which other medical or health-related journals do you scan NEW issues of more than three times a year?

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3. How do you usually gain access to NEW issues of the journals which you consult? (Please tick up to 3)

- Copies received free by arrangement with the journal \_\_\_\_\_
  - Personal subscription \_\_\_\_\_
  - Newspaper company subscription - copy circulated to me \_\_\_\_\_
  - Newspaper company subscription - copies in library \_\_\_\_\_
  - In libraries of other organisations (please specify below) \_\_\_\_\_
  - On-line electronic copy \_\_\_\_\_
  - Other (please specify below) \_\_\_\_\_
- 
- 

4. In reporting an article from a peer-reviewed journal, which of the following would you consider necessary, preferable, or unnecessary? (Please tick as appropriate)

|  | Necessary | Preferable | Unnecessary |
|--|-----------|------------|-------------|
| Access to the full text of the article                 | _____     | _____      | _____       |
| Consultation with author                               | _____     | _____      | _____       |
| Consultation with another medical expert               | _____     | _____      | _____       |
| Personal understanding of background issues            | _____     | _____      | _____       |
| Personal understanding of technical details            | _____     | _____      | _____       |
| Personal understanding of implications of the research | _____     | _____      | _____       |

5. If you were seeking background information to CLARIFY understanding of a journal article, which would be your most likely sources? (Please rank from 1 to 7)

- Personal files or reference material \_\_\_\_\_
- The newspaper's library of files or reference material \_\_\_\_\_
- An external medical library \_\_\_\_\_
- Existing personal medical or scientific contacts. \_\_\_\_\_
- A professional medical organisation, and any experts they recommend. \_\_\_\_\_
- Experts suggested by the Media Resource Service \_\_\_\_\_
- Staff of the journal in which the article was published. \_\_\_\_\_

6. How far do you agree with the following statements about press release summaries of recent articles in medical journals?

|   | Strongly Agree | Agree | Disagree | Strongly Disagree |
|---|----------------|-------|----------|-------------------|
| They usefully draw attention to newsworthy articles                                   | _____          | _____ | _____    | _____             |
| They provide accurate summaries of recent research findings                           | _____          | _____ | _____    | _____             |
| They are often an adequate basis for a news item                                      | _____          | _____ | _____    | _____             |
| Those originating from peer-reviewed journals are quite objective and credible.       | _____          | _____ | _____    | _____             |
| I would be wary if they came from the article's author or the funder of the research. | _____          | _____ | _____    | _____             |

7. Do you keep articles or journals

- |  |        |
|--|--------|
|  | YES/NO |
| - which might be useful for future background reference  | _____  |
| - about which you have written an article                | _____  |
| - about topics of ongoing current interest               | _____  |
| - about subjects or issues of particular interest to you | _____  |



Questions specific to press releases issued by the Lancet.

8. Who selects the summarised articles from the press releases on which to report? (e.g. Editor, Medical Correspondent)

9. What are the main criteria for this selection?

10. For a summary which you are likely to report on, how often do you

|  | Always      | Usually     | Sometimes   | Never       |
|--|-------------|-------------|-------------|-------------|
| Consult the full text of the article               | <div></div> | <div></div> | <div></div> | <div></div> |
| Contact the author named at the end of the summary | <div></div> | <div></div> | <div></div> | <div></div> |
| Contact another medical expert for their opinion   | <div></div> | <div></div> | <div></div> | <div></div> |
| Find the summary alone adequate for a news report  | <div></div> | <div></div> | <div></div> | <div></div> |

## **Appendix 4**

### **Source organisations included in the interview study**

#### **Association of the British Pharmaceutical Industry (ABPI)**

The trade association representing over 100 companies involved in the research, development and manufacture of prescription medicines. ABPI's stated main functions are:

- to maintain and improve the reputation of the industry and its contribution to the health and economic welfare of the nation.
- to assist contact between member companies and with government departments, professional, scientific and trade organisations and other similar bodies.
- to act as a channel of communication and to act on collective decisions taken by its members.

#### **Association of Medical Research Charities (AMRC)**

AMRC represents over 60 charities engaged in medical research. These must meet certain standards and membership criteria. AMRC's stated aims and objects include:

- the advancement of medical research in the UK, in particular the advancement of the effectiveness of those charities whose principle activity is medical research.
- to promote a better understanding of the contribution of the charitable sector to UK medical research.
- to represent members collectively in the fora responsible for the formulation of national policy.

#### **British Heart Foundation (BHF)**

A registered charity which campaigns against heart disease. BHF's work includes:

- research into the causes and prevention of cardiovascular disease, the improvement of early diagnosis and treatment
- development of methods of determining risk, diagnostic procedures, surgical techniques
- education of both public and medical professionals
- provision of cardiac care equipment

#### **British Health Food Trade Association (BHFTA)**

The trade body representing both manufacturers and retailers of health foods ("health foods" being defined as those of vegetarian composition providing all the natural and nutritious substances found in the original raw materials). An umbrella body for the Health Food Manufacturers' Association and the National Association of Health Stores.



## **British Medical Association (BMA)**

The BMA is widely seen as the respected voice of organised medicine in the UK. It is a registered trade union, representing doctors in the National Health Service. In recent years, it has taken up issues of social concern and produced scientific, medical and ethical publications for professional, political and lay audiences.

## **Consumers' Association (CA)**

As an organisation, CA is technically split into two parts: the Association for Consumer Research (a registered charity) and Consumers' Association Limited (a trading subsidiary). CA was formed to redress the power imbalance between buyers and sellers. It aims to provide independent, technically based guidance on goods and services. It is, and is keen to be seen as being, independent of all interests other than those of the consumer. CA publishes Which? Way to Health (for a lay audience) and the Drug and Therapeutics Bulletin (for prescribing practitioners).

## **Cancer Research Campaign (CRC)**

A major registered charity devoted to cancer research. CRC funds about one third of all British Cancer research by supporting basic and applied research in UK universities, medical schools and research institutes. The research programme encompasses aetiology, early detection, and the nature, treatment and cure of cancers.

## **Department of Health (DH)**

The government department with responsibility (in England) for the administration of the National Health Service and for certain aspects of public health. The DH informs, advises and services the Secretary of State for Health (SSH) and supports the implementation of legislation for which the SSH is responsible. It liaises with a wide variety of other organisations concerned with particular aspects of health. The DH directly commissions research into health and personal social services and information technology within the NHS.

## **East Anglia Regional Health Authority (EARHA)**

One of 14 Regional health authorities in England, responsible for District Health Authorities and Family Health Service Authorities within its boundaries. In the reformed NHS, Regional Health Authorities

- monitor the performance of the health service and evaluate its effectiveness.
- oversee the functioning of the internal market locally and inhibit the development of market forces where they are contrary to the public interest.
- set minimum standards and performance criteria (this may include monitoring the ethical propriety of medical research).

Regional Health Authorities may run or have varying degrees of responsibility for Ambulance, Blood Transfusion and other operational or management services, and may fund locally organised research into health services.

## **Family Planning Association (FPA)**

The leading UK voluntary organisation promoting sexual health and family planning. After pioneering family planning clinic provision, the FPA developed a role in public information and professional training provision. It also campaigns for laws, policies and programmes which promote sexual health and family planning. The FPA is a registered charity, part-funded by the Department of Health.

## **Foundation for the Study of Infant Deaths (FSID)**

A registered charity, FSID's objects are:

- to promote research into the causes and prevention of cot death
- to support bereaved parents
- to act as a centre for information

FSID is extremely active in public information provision and has campaigned to have the results of research into cot deaths appropriately used and widely disseminated.

## **Glaxo**

The Glaxo group comprises several subsidiary companies including Glaxo Group Research, where most of the basic research and drug development is done. Glaxo Holdings, the parent company, is ranked as the 40th most successful British company in terms of sales turnover in Key British Enterprises (Hewitt et al, 1993), and second among Chemical and Allied Products companies.

## **Health Education Authority (HEA)**

A special health authority, required by statute to:

- provide information and advice about health directly to members of the public
- support other organisations, health professionals and other people who provide health education to members of the public
- advise the Secretary of State on matters relating to health education

The HEA funds and stimulates health education research. Its priority programmed areas are: HIV/AIDS and sexual health; heart disease; cancer; smoking; alcohol; nutrition; and family and child health.

## **Imperial Cancer Research Fund (ICRF)**

Another major charity, ICRF funds over one third of all UK cancer research. Its scope includes basic and clinical research into the prevention, detection, treatment and cure of all cancer types. Money is directed to support work in laboratories and clinical units run by the ICRF.



## **Joan Scott Communications, Ltd. (JSC)**

A commercial public relations consultancy firm which specialises in handling accounts for medical charities and other organisations concerned with health and medicine. JSC's clients include the British Digestive Association, the British Heart Foundation, and the Royal Free NHS Hospital Trust.

## **Lancet**

A prestigious general medical journal, the Lancet publishes a range of peer reviewed research papers every week.

## **Medical Research Council (MRC)**

A statutory body, the MRC's role is to promote the balanced development of medical and related biological research in the United Kingdom. It is advised by specialist boards and committees and employs its own research staff as well as providing grants for other institutions and individuals.

The Council advises Government on matters relating to medical research and cooperates with government departments. It receives a Grant-in-Aid from Parliament, as well as funds for specific projects from other government departments, international agencies and charities.

## **National Association of Health Authorities and Trusts (NAHAT)**

NAHAT's primary role is to express the collective views of Family Health Service Authorities, Health Authorities and NHS Trusts. To this end, it conducts various opinion and other surveys within the NHS. Its stated aims include:

- to foster cooperation and communication between organisations concerned with health matters.
- to educate and inform the public about the achievements and needs of the NHS.
- to promote research, education and the exchange of information within the NHS.
- to advise Government and professional bodies on issues relating to the NHS.

## **National Association for Mental Health (MIND)**

A registered charity whose stated objects are:

- To promote the preservation of mental health and to assist in relieving and rehabilitating persons suffering from mental disorder or conditions of emotional or mental stress requiring advice or treatment.
- To promote the study of and research into mental health and mental disorder or emotional or mental distress and to obtain and make records of and disseminate information concerning the same and to educate the public in matters relating to mental health.

## **Nuffield Council on Bioethics (NCB)**

Established in April 1991 by the Nuffield Foundation after consultation with Government and academic bodies, the council is an advisory body of experts in various fields, with the following terms of reference:

- to identify and define ethical questions raised by recent advances in biological and medical research in order to respond to and anticipate public concern.
- to make arrangements for examining and reporting on such questions with a view to promoting public understanding and discussion .
- in the light of the outcome of its work, to publish reports and to make representations as the Council may judge appropriate.

## **Office of Health Economics (OHE)**

Founded by the Association of the British Pharmaceutical Industry to:

- undertake research on the economic aspects of medical care
- investigate health and other social problems
- collect data from other countries
- publish results, data and conclusions of above.

The OHE specialises in the publication of small informative booklets on current health topics, and publishes health statistics in forms that are not available elsewhere.

## **Office of Population Censuses and Surveys (OPCS)**

The government department with responsibility for registration of births, marriages and deaths. OPCS carries out statistical activities including population statistics, censuses, social surveys and medical statistics. The Medical Statistics Division publishes and reports on mortality statistics and cooperates with medical researchers by flagging the patient records of certain samples and notifying researchers when subjects die or are notified as cancer patients. It also carries out its own research projects.

## **Royal College of General Practitioners (RCGP)**

The most recently established medical royal college, with a membership of almost 17,000 general practitioners. RCGP's stated object is:

To encourage, foster and maintain the highest possible standards in general medical practice and for that purpose to take or join with others in taking any steps consistent with the charitable nature of that object which may assist towards the same.

RCGP publishes a journal of research and issues into general practice.

## **Royal College of Psychiatrists (RCPsych)**

Founded in its present form in 1971, RCPsych has over 7,000 members. Its stated objectives are:

- to advance the science and practice of psychiatry and related disciplines
- to foster public understanding of mental illness and psychiatry



- to promote study and research work in psychiatry

### **Spastics Society (SS)**

One of the largest UK charities, SS works for people with cerebral palsy by providing specialised education, residential services and personal support. SS also supports research, provides information and educational material for the public and actively campaigns to improve attitudes to people with disabilities.

### **South West Thames Regional Health Authority (SWTRHA)**

One of fourteen regional health authorities in England. See EARHA.

## Appendix 5

### Guideline interview schedule for a medical research charity

#### General activity of the press office

##### a) reactive activity

Can you give me some idea of the scale of the press office operation here? How many enquiries do you receive? Approximately how many of these come from national newspapers?

About which subjects do you receive most enquiries from the national press?

What is the organisation's policy for handling enquiries from the media?

Are all calls routed via the press office?

Which personnel are allowed to talk to enquiring journalists?

How do you select experts to recommend to the media for comment?

Are there a clearly defined organisational "lines" or "views" on certain topics or issues which must be used when speaking with the press? (i.e. cases when dissenting personal opinions should not be aired?)

What resources are made available to enquiring journalists?

Will you help journalists find "case study" patients who are willing to speak?  
e.g. People who have been involved in clinical trials?

Do you log or monitor the enquiries you receive?

##### b) proactive activity

Can you tell me about the scale and nature of proactive dealings with the press?

About what kinds of activity are you likely to alert the press?  
What do you think they are most likely to pick up?

How do you tend to approach the national press and how often?  
(News releases, press conferences, offering of exclusives etc.)

Which proactive approaches seem most successful in achieving quantity and quality of coverage?

Do you target any press channels particularly? Which ones? When? Why?

When work is done in conjunction with other organisations, how do you arrange media relations?



How do you think journalists perceive this organisation? How does this affect their uptake of proffered material?

Do you use external public relations agencies? If so, for what?

Are there any other constraints which you feel inhibit the optimum use of media relations by this organisation?

### Media relations activity concerning research

Can we focus on proactive activity about research?

At what stage(s) of research are you likely to alert the press?

Do you actively alert the press to journal articles of interest in which research funded by the organisation is reported?

How do you liaise with researchers whose work is to be publicised? e.g. do they help with the writing of news releases?

What factors might discourage publicity about research work?

### The organisation's interest in media relations

Why is editorial press coverage important to this organisation?

What main messages would the organisation like to communicate via the media?

Are any types of press coverage undesirable or sensitive?

Do you try to anticipate or counteract competing messages through the press?

What other means are used to communicate with the public, and which are considered most important?

### Internal communications and the status of the press office

How does the press office receive information about events and issues within the organisation?

In your opinion are these means adequate, or do internal communications hinder the optimal functioning of the press office?

What is the scope of the press office remit?

What responsibility do you have for media coverage of research units at a distance?

Do you provide media relations training?

To what extent are you involved in organisational planning or policy discussions?

Quality and impact of press coverage obtained

How do you monitor press coverage?

How does this monitoring feed back into media relations activity? What do you regard as the qualities of good journalism?

Background and experience of press office staff

How do you perceive your role?

Can you say something about your background and experience?  
(e.g. is it in research, health care, journalism, public relations training etc?)

What are the backgrounds of other members of the press office?

Are there any other points not covered so far which you think are important?



Appendix 6

Journalists included in the interview study

|                  |                 |  |
|------------------|-----------------|--|
| Christine Doyle  | Daily Telegraph | Health Page Editor                           |
| Annabel Ferriman | Observer        | Medical Correspondent                        |
| David Fletcher   | Daily Telegraph | Health Services Correspondent                |
| Celia Hall       | Independent     | Health Page Editor and Medical Correspondent |
| Roger Highfield  | Daily Telegraph | Science Correspondent                        |
| John Illman      | Guardian        | Health Page Editor                           |
| Anne Karpf       | Freelance       | Freelance journalist                         |
| James Le Fanu    | Daily Telegraph | Columnist                                    |
| Chris Mihill     | Guardian        | Medical Correspondent                        |
| Thomson Prentice | Times           | Medical Correspondent                        |

## Appendix 7

### Guideline interview schedule for journalists

Can you summarise your job remit and your role within the news organisation?

How are the news articles you write initiated?

- assignment by editor
- sources you scan unprompted
- material offered by sources (eg in post, via telephone)
- use of PA or other news wires

To which kinds of sources do you most commonly turn for ideas?

- journals scanned/read
- conferences
- particular organisations
- information received through the post

What criteria influence your choice of a story for an article?

Does personal interest influence the selection of subjects?

Does the editor influence your selection of subjects?

Are there any topics which you tend not to cover?

How are the articles you write developed?

Which sources do you use for information with which to develop an article?

Are there any sources which you would like to consult, but to which you find it difficult to obtain access?

Do you read more widely around a subject than appears in the final article?

It is often said that journalists strive for balance and objectivity by presenting opposing views or shades of disagreement on an issue. To what extent do you feel that applies to medical reporting and yourself in particular?

Are issues where there is disagreement within the medical profession inherently more newsworthy?

How do you identify doctors and scientists to provide expert comment?

Does continued use of existing contacts tend to exclude other equally able speakers? Do you try to compensate for this?

How (else) do you tend to use press and publicity offices?

What qualities do you find most useful in press and publicity offices?



What influences you to acknowledge (or not) organisations which have provided you with information, funded the research you report etc.?

Do organisational characteristics influence the credibility you attribute to a story or viewpoint?

How do you assess the credibility of sources?

### Coverage of medical research

What are your main sources of information about medical research?

How do you select which conferences to attend?

How do you use the BMJ and Lancet?

How do you use news releases associated with medical journals?

How do you liaise with the science correspondent(s) in covering research?

What kinds of information do you try to include in stories about medical research?

- an understanding of how the results were obtained  
(is this influenced by the issue of animals in medical research?)
- the names of individuals and/or organisations involved in the work
- an understanding of the implications of the research

What do you see as the major constraints in reporting medical research?

### Working in the news organisation

How do you liaise with other writers for the paper?

Do you compete or collaborate with medical correspondents for other newspapers?

How long before publication time are you required to have the articles filed?

Do you feel your articles are heavily edited?

Do you write the headlines too, or is that done by someone else?

If by someone else, do they reflect the content and essence of the articles adequately?

### Perception of audience

Does your perception of your audience influence your writing?

What kind of things do you think readers want to hear about medicine?

Do you receive correspondence or other feedback from readers?

### Perceptions of role

How do you perceive your role in writing about health/medical matters in a national newspaper?

What kind of impact on your audience would you hope to have?

Are there any recurring themes or messages which you are trying to put across?

What qualities do you strive for in your writing?

Do you have a medical/scientific background, or have you learnt on the job?

### Questions about specific articles

Are there any other points which have not yet been covered which you think important?



## Appendix 8

The table shows the working backgrounds of those press officers interviewed who supplied the information, and also of some of their press office teams.

It should be noted that the people interviewed had differing job titles and remits, and supervised different numbers of people in different roles. Also, several of those interviewed were senior personnel who had seen many changes in their organisation and in press relations practice. Some intimated that their recruitment patterns would not necessarily remain static, and several expressed a preference for people with journalistic experience. The exceptions to this were organisations in which people were required to carry out more general public relations functions as well as media relations activities.

| No. | Institution type         | Journalism | Public relations | Science/medicine | Other |
|-----|--------------------------|------------|------------------|------------------|-------|
| 1.  | RHA                      |            | *                |                  | *     |
| 2.  | RHA                      |            |                  |                  | *     |
| 3.  | RHA                      | *          |                  |                  |       |
| 4.  | RHA                      | *          |                  |                  |       |
| 5.  | Gov't/Quango             | *          | *                |                  |       |
| 6.  | Gov't/Quango             | *          | *                |                  |       |
| 7.  | Gov't/Quango             | *          | *                |                  |       |
| 8.  | Gov't/Quango             | *          | *                |                  |       |
| 9.  | Gov't/Quango             |            | *                |                  |       |
| 10. | Gov't/Quango             |            |                  |                  | *     |
| 11. | Gov't/Quango             |            |                  |                  | *     |
| 12. | Gov't/Quango             |            |                  |                  | *     |
| 13. | Sector rep. <sup>1</sup> |            | *                |                  | *     |
| 14. | Sector rep.              |            | *                |                  |       |
| 15. | Sector rep.              | *          | *                |                  |       |
| 16. | Sector rep.              |            | *                |                  | *     |
| 17. | Sector rep.              |            | *                |                  |       |
| 18. | Sector rep.              |            | *                |                  |       |
| 19. | Prof. organisation       |            |                  |                  | *     |
| 20. | Prof. organisation       |            | *                |                  | *     |
| 21. | Prof. organisation       | *          | *                |                  |       |
| 22. | Prof. organisation       |            | *                |                  |       |
| 23. | Prof. organisation       |            | *                |                  |       |
| 24. | Prof. organisation       |            | *                |                  |       |
| 25. | Charity                  | *          | *                |                  |       |
| 26. | Charity                  |            |                  | *                | *     |
| 27. | Charity                  |            | *                |                  |       |
| 28. | Charity                  |            | *                |                  |       |
| 29. | Charity                  |            |                  |                  | *     |
| 30. | Charity                  |            | *                |                  | *     |
| 31. | Charity                  |            |                  |                  | *     |
| 32. | Charity                  |            |                  |                  | *     |
| 33. | Charity                  | *          |                  |                  |       |

1. Includes organisations representing the pharmaceutical and health food industries, health authorities and trusts, and medical research charities.

## Appendix 9

### Results of preliminary questionnaire survey of journalists

Table A9.1 Numbers of journalists consulting different journals

|                                     | Every issue | Quite often | Rarely | Never |
|-------------------------------------|-------------|-------------|--------|-------|
| British Journal of General Practice | 6           | 3           | 4      | 1(*)  |
| British Medical Journal             | 13          | 0           | 1(*)   | 0     |
| Health Service Journal              | 4           | 2           | 4      | 2(*)  |
| Lancet                              | 13          | 1           | 1(*)   | 0     |
| New Scientist                       | 4(*)        | 3           | 3      | 4     |
| Which? Way to Health                | 4           | 9           | 0      | 1(*)  |

(\*) Includes 1 science correspondent.

Table A9.2 How journalists gain access to new issues of journals  
(Numbers are numbers of journalists checking the means of access).

|  | No. |
|--|-----|
| Copies received free by arrangement with the journal   | 15  |
| Personal subscription                                  | 3   |
| Newspaper company subscription - copy circulated to me | 12  |
| Newspaper company subscription - copies in library     | 0   |
| In libraries of other organisations                    | 2   |
| On-line electronic copy                                | 1   |
| Other (copies sent unsolicited)                        | 1   |



**Table A9.3 Journalists’ opinions of the importance of particular things when reporting from peer reviewed journal articles**

(Numbers are numbers of journalists. Different numbers answered the different components of this question.)

|  | Necessary | Preferable | Unnecessary |
|--|-----------|------------|-------------|
| Access to the full text of the journal article             | 11        | 4          | 0           |
| Consultation with an author                                | 1         | 10         | 2           |
| Consultation with another medical expert                   | 1         | 8          | 3           |
| Personal understanding of background issues                | 8         | 6          | 0           |
| Personal understanding of technical details                | 6         | 7          | 0           |
| Personal understanding of the implications of the research | 9         | 5          | 0           |

**Table A9.4 How journalists rank the importance of sources of background information**  
(Scores were calculated by assigning 7 points to sources ranked 1, 6 to those ranked 2 etc.)

|  | Score |
|--|-------|
| Personal files or reference material                               | 76    |
| Newspaper’s library of files or reference material                 | 62    |
| External medical library   | 16    |
| Existing personal medical or scientific contacts                   | 66    |
| A professional medical organisation and any experts they recommend | 49    |
| Experts suggested by the Media Resource Service                    | 21    |
| Staff of the journal   | 18    |

Table A9.5 Journalists’ opinions of press release summaries about journal articles

(Numbers are numbers of journalists)

|  | Strongly agree | Agree | Disagree | Strongly disagree |
|--|----------------|-------|----------|-------------------|
| They usefully draw attention to newsworthy articles                                  | 2              | 11    | 0        | 0                 |
| They provide accurate summaries of recent research articles                          | 1              | 12    | 0        | 0                 |
| They are often an adequate basis for a news item                                     | 1              | 5     | 6        | 0                 |
| Those originating from peer reviewed journals are quite objective and credible       | 2              | 10    | 0        | 0                 |
| I would be wary if they came from the article’s author or the funder of the research | 4              | 4     | 4        | 0                 |



## Appendix 10

### News articles included in the content analysis study

#### Notes:

1. Headlines entered in parentheses are the main headlines under which a relevant "sub-article" appeared.
2. Where two page numbers are given, this indicates either an article begun on one page and continued on another, or a brief "alert" in contents/summary fashion and a main article. Each row in the table represents only one newspaper article entry in the analysis.
3. The source column contains a code or codes identifying the journal article(s) on which the newspaper articles were based. The code comprises a letter (B or L to denote BMJ and Lancet respectively) and a number, which is the number of the first page of the journal article. The journal articles are listed in Appendix 11.

|    |     | Date     | Pg   | Headline  | By-line               | Source       |
|----|-----|----------|------|---|-----------------------|--------------|
| 1  | GUA | 06/09/91 | 3    | Maternity tests "waste money".  | Chris Mihill          | L616         |
| 2  | IND | 06/09/91 | 1, 2 | Screening may go. Older women may lose right to Down's syndrome pregnancy test. | Sharon Kingman        | B551         |
| 3  | TEL | 06/09/91 | 2    | Cancer tests.   | Anon.                 | L613         |
| 4  | TEL | 06/09/91 | 4    | Danger seen in "drink for heart" advice.  | David Fletcher        | B553<br>B565 |
| 5  | TIM | 06/09/91 | 3    | Light drinkers cut heart risk.  | Thomson Prentice      | B553         |
| 6  | TIM | 06/09/91 | 8    | Mothers are "put at risk" by doctors' fears of being sued.                      | Thomson Prentice      | L616         |
| 7  | GUA | 13/09/91 | 3    | Doctors suggest human insulin gives less warning of blackouts.                  | Chris Mihill          | B617<br>B622 |
| 8  | IND | 13/09/91 | 6    | Hard lenses "lessen risk of infection".   | Anon.                 | L650         |
| 9  | IND | 13/09/91 | 8    | Human insulin "worsens attacks".  | Celia Hall            | B617<br>B622 |
| 10 | TEL | 13/09/91 | 5    | "Coma risk" of human insulin.   | Health Services Staff | B617<br>B622 |

|    |     |          |       |   |                   |              |
|----|-----|----------|-------|---|-------------------|--------------|
| 11 | TEL | 13/09/91 | 5     | Contact lens users "prone to disease".                                | Medical Consult't | L650         |
| 12 | TIM | 13/09/91 | 1, 22 | Soft contact lens users risk sight.<br>Soft contact lenses pose risk. | Thomson Prentice  | L650         |
| 13 | TIM | 13/09/91 | 3     | Research fuels insulin debate.  | Nigel Hawkes      | B617<br>B622 |
| 14 | IND | 20/09/91 | 2     | Leprosy victim may have infected care staff.                          | Sharon Kingman    | L739         |
| 15 | IND | 20/09/91 | 3     | ME "caused by immune imbalance".                                      | Anon.             | L707         |
| 16 | IND | 20/09/91 | 3     | Coronary bypasses 10 years on.  | Celia Hall        | B661         |
| 17 | TEL | 20/09/91 | 6     | (Hospital waiting list slashed by 38.000).                            | David Fletcher    | B671         |
| 18 | IND | 27/09/91 | 6     | HIV "can be passed on during oral sex".                               | Celia Hall        | L830         |
| 19 | GUA | 04/10/91 | 2     | One in four X-rays are unnecessary, say radiologists.                 | Chris Mihill      | B809<br>B813 |
| 20 | IND | 04/10/91 | 3     | One in ten "fathers" may not be a parent.                             | Sharon Kingman    | L869         |
| 21 | IND | 04/10/91 | 4     | (Breast cancer specialist offers bathtime advice).                    | Sharon Kingman    | L833<br>L856 |
| 22 | TEL | 04/10/91 | 4     | 20 pc of X-rays "pointless".  | Peter Pallot      | B809         |
| 23 | GUA | 11/10/91 | 9     | Vegetarian diets shown to help arthritis sufferers                    | Nigel Williams    | L899         |
| 24 | IND | 11/10/91 | 6     | Meat-free diet "eases arthritis".                                     | Celia Hall        | L899         |
| 25 | IND | 11/10/91 | 6     | (Meat-free diet "eases arthritis").                                   | Celia Hall        | L917         |
| 26 | TEL | 11/10/91 | 4     | Vegetarian diet "eases" arthritis.                                    | David Fletcher    | L899         |
| 27 | GUA | 18/10/91 |       | Young smokers "put on weight".  | Anon.             | B947         |
| 28 | GUA | 18/10/91 |       | (Health districts efar struggle in paying for "one-off" treatments).  | David Brindle     | B958         |



|    |     |          |    |  |                           |       |
|----|-----|----------|----|--|---------------------------|-------|
| 29 | GUA | 18/10/91 | 4  | (N-tests linked to child cancers).                             | Nigel Williams            | L959  |
| 30 | IND | 18/10/91 | 3  | Teenagers who smoke "heavier than non-smokers".                | Sharon Kingman            | B947  |
| 31 | TEL | 18/10/91 | 9  | Homeless blow to hospital lists.                               | Anon.                     | B958  |
| 32 | TEL | 18/10/91 | 22 | Health peril of young smokers.                                 | Health Services Corresp't | B947  |
| 33 | GUA | 25/10/91 | 2  | Diabetes in middle age may stem from malnutrition in the womb. | Chris Mihill              | B1019 |
| 34 | GUA | 25/10/91 | 2  | "Little help" given to discharged schizophrenics.              | Chris Mihill              | B1023 |
| 35 | GUA | 25/10/91 | 6  | (AIDS lessons for pupils).                                     | Chris Mihill              | B1060 |
| 36 | IND | 25/10/91 | 2  | Hospital allowed baby milk advert.                             | Sharon Kingman            | B1058 |
| 37 | IND | 25/10/91 | 8  | Small babies face diabetes risk.                               | Sharon Kingman            | B1019 |
| 38 | TEL | 25/10/91 | 7  | Diabetes linked to low birth weight.                           | David Fletcher            | B1019 |
| 39 | TIM | 25/10/91 | 5  | Tinier babies more prone to diabetes.                          | Nigel Hawkes              | B1019 |
| 40 | TIM | 25/10/91 | 6  | Care in community "harming patients".                          | Nick Nuttall              | B1023 |
| 41 | GUA | 08/05/92 | 6  | Hospitals "failing bereaved families".                         | Chris Mihill              | B1207 |
| 42 | IND | 08/05/92 | 2  | Lower blood-fat levels may help to control cancer.             | Celia Hall                | L1154 |
| 43 | TIM | 08/05/92 | 3  | Cholesterol "may feed cancers".                                | Nick Nuttall              | L1154 |
| 44 | TIM | 08/05/92 | 3  | (Vitamin linked to leukaemia risk).                            | Nick Nuttall              | L1150 |
| 45 | IND | 15/05/92 | 2  | GMC scrutiny.  | Anon.                     | B1257 |
| 46 | IND | 15/05/92 | 2  | Epidural study.  | Anon.                     | B1279 |

|    |     |          |   |  |                           |       |
|----|-----|----------|---|--|---------------------------|-------|
| 47 | IND | 15/05/92 | 4 | Study finds aluminium in fruit juices.               | Anon.                     | L1236 |
| 48 | TEL | 15/05/92 | 7 | Arthritis is more likely in farmers.                 | Medical Consult't         | B1269 |
| 49 | TEL | 15/05/92 | 7 | Epidurals "can damage heath".                        | Peter Pallot              | B1279 |
| 50 | TIM | 15/05/92 | 3 | Warning over poor doctors.                           | Jeremy Lawrence           | B1257 |
| 51 | TIM | 15/05/92 | 3 | Fruit juices "an aluminium risk".                    | Health Services Corresp't | L1236 |
| 52 | GUA | 22/05/92 | 5 | 1 in 2 smokers may die early, says mass study.       | Chris Mihill              | L1268 |
| 53 | IND | 22/05/92 | 2 | Smoking "cuts life expectancy by 24 years".          | Liz Hunt                  | L1268 |
| 54 | IND | 22/05/92 | 2 | Suicide foiled.                                      | Anon.                     | B1376 |
| 55 | IND | 22/05/92 | 3 | Training "is key to saving heart victims".           | Liz Hunt                  | B1347 |
| 56 | TEL | 22/05/92 | 2 | Tobacco will kill a third of smokers.                | Peter Pallot              | L1268 |
| 57 | TEL | 22/05/92 | 4 | Clean exhausts "may cut suicides".                   | Anon.                     | B1376 |
| 58 | TIM | 22/05/92 | 3 | Smoking predicted to kill a fifth of people in West. | Nigel Hawkes              | L1268 |
| 59 | IND | 29/05/92 | 2 | Pickled food linked with throat cancer.              | Celia Hall                | L1314 |
| 60 | IND | 29/05/92 | 4 | Suicide attempts thought to exceed 10,000 a year.    | Ian MacKinnon             | B1409 |
| 61 | TEL | 29/05/92 | 4 | Girl would be suicides top hospital emergencies.     | David Fletcher            | B1409 |
| 62 | TEL | 29/05/92 | 4 | Gene defect linked to diabetes.                      | Anon.                     | L1307 |
| 63 | TEL | 29/05/92 | 4 | Psychiatric outpatients "helped most".               | Medical Consult't         | L1311 |
| 64 | TEL | 29/05/92 | 7 | Pickles linked to gullet cancer.                     | David Fletcher            | L1314 |
| 65 | TIM | 29/05/92 | 4 | Plant appeal.  | Anon.                     | L1330 |
| 66 | GUA | 05/06/92 | 5 | Test tube success.                                   | Anon.                     | B1465 |



|    |     |          |   |  |                 |                |
|----|-----|----------|---|--|-----------------|----------------|
| 67 | IND | 05/06/92 | 3 | IVF success falls with age.                                | Celia Hall      | L1390          |
| 68 | TEL | 05/06/92 | 9 | Fertility hope for younger couples                         | Peter Pallot    | B1465<br>L1390 |
| 69 | TIM | 05/06/92 | 3 | Scientists link nerve disorder to gene flaw.               | Nick Nuttall    | L1375          |
| 70 | TIM | 05/06/92 | 4 | Study traces IVF rate.                                     | Jeremy Laurance | L1390          |
| 71 | GUA | 12/06/92 | 2 | Throat cancer linked with Scotch whisky workers.           | Chris Mihill    | B1543          |
| 72 | IND | 12/06/92 | 3 | Doctors warned on sex with patients.                       | Judy Jones      | B1519<br>B1531 |
| 73 | IND | 12/06/92 | 9 | "Cancer risk for distillery drinkers".                     | Liz Hunt        | B1543          |
| 74 | TEL | 12/06/92 | 9 | Gynaecologists "attracted to patients".                    | David Fletcher  | B1531          |
| 75 | GUA | 19/06/92 | 3 | Allergies linked to early feeding.                         | Chris Mihill    | L1493          |
| 76 | GUA | 19/06/92 | 6 | Researchers track key to longevity.                        | Chris Mihill    | L1506          |
| 77 | GUA | 19/06/92 | 6 | Switch from grain to grape may cut heart disease.          | Chris Mihill    | L1523          |
| 78 | IND | 19/06/92 | 8 | Alcohol seen as efficient barrier to heart disease.        | Liz Hunt        | L1523          |
| 79 | IND | 19/06/92 | 8 | (Alcohol seen as efficient barrier to heart disease).      | Liz Hunt        | L1493          |
| 80 | TEL | 19/06/92 | 5 | Why French can eat, drink and be healthy.                  | Peter Pallot    | L1523          |
| 81 | GUA | 26/06/92 | 3 | Remedy for indigestion found to save heart attack victims. | Chris Mihill    | L1553          |
| 82 | IND | 26/06/92 | 3 | New research sought into cerebral palsy.                   | Liz Hunt        | B1658          |
| 83 | IND | 26/06/92 | 6 | Magnesium "beneficial in heart attack treatment".          | Celia Hall      | L1553          |
| 84 | IND | 26/06/92 | 6 | (Magnesium "beneficial in heart attack treatment").        | Celia Hall      | L1562          |

|    |     |          |   |  |                   |       |
|----|-----|----------|---|--|-------------------|-------|
| 85 | TEL | 26/06/92 | 7 | Magnesium "helps cut heart deaths".                              | David Fletcher    | L1553 |
| 86 | TEL | 26/06/92 | 7 | (Magnesium "helps cut heart deaths").                            | Medical consult't | B1668 |
| 87 | TIM | 26/06/92 | 2 | Hope for heart victims.  | Anon.             | L1553 |
| 88 | GUA | 03/07/92 | 5 | Scientists find herbal remedy beneficial to eczema sufferers.    | Chris Mihill      | L13   |
| 89 | IND | 03/07/92 | 3 | Cholesterol researchers "show bias".                             | Liz Hunt          | B15   |
| 90 | TEL | 03/07/92 | 5 | "Selective research" overstating high fat link to heart disease. | Peter Pallot      | B15   |



## Appendix 11

British Medical Journal and Lancet articles reported by newspapers on embargo dates during the sample period.

| Code  | Reference   |
|-------|---|
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