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MAPPING THE TERRAIN OF INVESTMENT IN GLOBAL INFECTIOUS DISEASES

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The limited resources available for research into global infectious diseases make the setting of priorities inevitable. The priorities of funding agencies largely dictate the type of research done, as well as the health issues and diseases studied [1]. Global health research governance needs to be transparent while the funders make difficult choices with the aim of channelling funds where most needed. This openness is crucial for maintaining public confidence and continued support. Defining public need is not straightforward. Few published reports address the issue of resource allocation and research prioritisation in a longitudinal, comparative, and transparent manner. The potential effect of investments in research is not always clear. Research prioritisation depends on the potential health implications, amount of risk entailed, and type of research and development support needed, factors which can differ drastically from disease to disease [2,3]. In some cases there might be need for basic research, whereas in others the need might be for developmental, clinical, or implementation research. Decisions on how to prioritise research investment are further mediated by the diverse health needs of countries, previous experiences, values, and preferences of both funders and aid-recipient countries. We need a better understanding of the research funding landscape [1, 4]. In Michael Head and colleagues [5] present a robust and transparent model (with an open access database) for mapping research investment in global infectious diseases. This study is the first in-depth analysis of the UK's contribution to infectious disease research, which amounts to more than £2.6 billion (from 1997 to 2010) and includes more than 6000 studies. The UK is the second largest investor in global health, and no detailed analysis with long-running data of research investment has been previously published. By comparing funding with disease burden (disability adjusted life years and mortality), Head and colleagues identify inequities in resource allocation. Suggested underinvestment includes research focusing explicitly on infections in elderly people and children. Investment for research into

neglected tropical diseases, gastrointestinal infections, and sexually transmitted infections excluding HIV are also reported as lower than their global burden.

Having considered this important research, we now propose two avenues that we feel are relevant to the research, policy, and practice communities. First, we suggest more attention toward the present gap in the later stages of the translational research path (implementation and scale up of interventions) within the sphere of global infectious diseases [6]. Second, we propose that future analyses focus on broader themes within and across specific communicable and non-communicable diseases. The suggested themes are health inequalities and integration of interventions with health systems. We feel that these considerations will provide an enhanced basis for future planning for maximum patient and public benefit.

We know that a substantial proportion of research evidence does not translate to policy or practice, or feature in decision making [7, 8]. Does high disease burden always need the generation of more research? Should the emphasis rather be in making this research more accessible and relevant? Although the study apportions 26.8% of the research as operational research, this proportion included evaluations, implementation research, surveillance, and epidemiological studies. We do not know what proportion are studies that focus on behaviour-linked research or the development of delivery mechanisms for existing and new interventions, including those aimed at the broader health system to decrease the burden of global infectious diseases. This categorisation that draws on the social sciences and organisational research has implications for the prevention of infectious diseases of poverty [6], and is important in addressing the persistent challenges where effective treatments exist. Such research could be complimented by focusing on the integration of vertical and stand-alone disease programmes with health systems [9]. Infectious diseases, as is the case with most public health challenges, disproportionately affect the most vulnerable populations and hence contribute to health inequalities. Policy makers need to be equipped with research

knowledge about health inequalities within disease areas rather than addressing competing demands between diseases. For example, we know that an increased rate of HIV and tuberculosis are evident in people with mental health disorders, and those affected by these infectious diseases have a higher burden of mental illness [10, 11]. We particularly encourage further analysis that uses the cross-cutting theme of inequalities to analyse research investment.

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