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- 1 Title: Barriers and facilitators to implementing a healthier food outlet initiative: perspectives from
- 2 local governments
- 3 Short title: Lessons from a UK healthy food service policy
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- 37 **Title:** Barriers and facilitators to implementing a healthier food outlet initiative: perspectives
- 38 from local governments
- 39 Abstract
- 40 **Objective**: Local governments have integral roles in contributing to public health. One recent
- 41 focus has been on how local governments can impact community nutrition by engaging food
- service outlets to improve their food offer. The Healthier Catering Commitment (HCC) is an
- 43 initiative where London local governments support takeaways and restaurants to meet
- 44 centrally-defined nutrition criteria on their food options. Using the case of HCC, this study
- 45 aims to provide 1)practical learnings of how local governments could facilitate and overcome
- barriers associated with implementing healthy food service initiatives in general, and 2)specific
- 47 recommendations for enhancements for HCC.
- 48 **Design**: Key informant, semi-structured interviews were conducted with local government
- 49 staff involved in HCC, exploring barriers and facilitators to HCC implementation in food
- businesses. A thematic analysis approach was used, with results presented according to a logic
- 51 pathway of ideal implementation in order to provide practical, focused insights.
- 52 **Setting:** Local governments implementing HCC.
- 53 **Participants**: Twenty-two individuals supporting HCC implementation.
- **Results:** Facilitators to implementation included flexible approaches, shared resourcing, and
- 55 strategically engaging businesses with practical demonstrations. Barriers were limited
- resources, businesses fearing negative customer responses, and low uptake in disadvantaged
- 57 areas. Key suggestions to enhance implementation and impact included offering additional
- 58 incentives, increasing HCC awareness, and encouraging recruited businesses to make healthy
- 59 changes beyond initiative requirements.
- 60 **Conclusions**: In order to facilitate the implementation of healthy food initiatives in food outlets,
- 61 local governments would benefit from involving their environmental health team, employing
- 62 community-tailored approaches, and focusing on supporting businesses in disadvantaged areas.

Introduction

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criteria, and how it is implemented.

65 An unhealthy diet is estimated to be the second highest behavioural risk factor contributing to 66 disability-adjusted life years lost worldwide, and the highest risk factor for mortality in 2017⁽¹⁾. 67 Unhealthy diets include those high in salt and sugar sweetened beverages, and low in whole grains and fruits and vegetables⁽¹⁾. Contributing to these unhealthy diets are the food 68 environments in which people live, work, play and learn (2). Of particular concern is the increase 69 70 in the consumption of foods from food service outlets (e.g. restaurants, cafes, fast food chains, 71 and independent takeaways) (3), which is associated with a greater total energy and fat intake(4), and higher body weight (5). 72 While comprehensive actions across sectors are required to address unhealthy diets⁽⁶⁾, local 73 74 governments internationally have the potential to engage in innovative and impactful strategies 75 aimed at improving food environments within their communities. Local governments have a historic role in promoting public health⁽⁷⁾, have existing influence and relationships with food 76 service outlets through the enforcement of food safety regulations (8-11), and have been identified 77 as key settings in which to test innovative and progressive policies aimed at addressing obesity 78 at a community level⁽¹²⁾. Local government are thus uniquely placed to impact local food 79 environments, with previous examples of policy action including mandatory menu labelling⁽¹³⁾, 80 81 limiting the development of new takeaway outlets through planning regulations⁽¹⁴⁾, and giving tax credits to grocery stores that stock fruit and vegetables in low-income underserviced 82 communities⁽¹⁵⁾. The Heathier Catering Commitment (HCC) is an example of a voluntary 83 84 London, UK initiative where local governments support food service outlets to create healthier food offerings. Local governments award food outlets a HCC certification once their food and 85 86 beverage offerings have been assessed to meet specific, centrally-defined nutrition criteria. HCC certification (a certificate and promotional materials) communicates to customers that the 87 food outlet is providing healthier options. Figure 1 provides an in-depth description of the HCC 88

What is it?

The Heathier Catering Commitment (HCC) is a London-based certification given to fast food and other restaurants in reward for increasing the healthiness of their food offer within their business, according to set criteria. It was developed by the Greater London Authority (GLA), the Chartered Institute of Environmental Health (CIEH), and the Association of London Environmental Health Managers (ALEHM) in 2012⁽¹⁶⁾.

To receive the certification, businesses must meet a minimum of 8 of a possible 25 criterion. Four of these are mandatory criteria that all businesses must meet; 1) use of healthier fats or oils when cooking food 2) where salt is added after preparation, customers add their own salt 3) healthier packaged drink options are available and prominently displayed and, 4) smaller portions are available and advertised. A further 3 criteria are mandatory if the business sells fried food; 1) cooking oil is heated to optimum temperature, 2) excess fat is drained before food is served, and 3) frying oil is properly maintained. The remaining criteria encompass using healthier cooking methods, healthier ingredients, less salt and sugar, increasing the availability of vegetables and healthier carbohydrate options, smaller portion sizes, as well as health promotion by staff⁽¹⁷⁾. Food businesses are only eligible to join if they have a minimum of 3 out of 5 in the Food Hygiene Rating Scheme, a local government assessed measure of a business' hygiene standards⁽¹⁸⁾.

Compliant businesses receive access to promotional materials including a certificate they can display in their premise that identifies them as being part of the HCC. Some local authorities offer incentives to join such as free food hygiene, nutrition, or allergy awareness training.

In some local authorities, the HCC is tiered. For example, businesses meeting the basic requirements of the award (e.g. meeting a minimum of 8 criteria) receive the "bronze" level of the award. Businesses who meet additional criteria can be awarded "silver" and "gold" levels.

Local authorities delivering the HCC come together within the HCC support network, composed of individuals delivering the HCC from different local authorities, as well as representatives from the organisations involved in its development (GLA, ALEHM).

How is it implemented?

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Local governments in London choose whether or not they will deliver the HCC in their borough, and the environmental health and public health teams often work together to do this. Most often, the environmental health officers (EHOs) recruit food businesses and support them in meeting specific criteria related to the healthiness of their food and drink offerings. Once EHOs have assessed food businesses as being compliant, the EHOs may support businesses in meeting the criteria by identifying what changes they need to make and how they could be made and providing basic nutrition information.

While most of HCC delivery is focused on independent food outlets, there has also been work conducted with a number of other organisations. This includes a key supplier of takeaways to deliver price discounts on healthier cooking oils, and working with small chain food outlets with headquarters in London and sports and recreation centres to increase healthier food provision.

Figure 1: Description of the Healthier Catering Commitment

While there are a plethora of policies and recommendations on how local governments can tackle obesity and unhealthy food environments^(13, 14, 19-24), there is less evidence on the barriers and facilitators to doing so, and how these policies could be strengthened. One study examining local government-delivered initiatives aimed at creating heathier takeaways found that retailer engagement was a key challenge to policy uptake⁽²⁵⁾. A further study examined the effects of a program to incentivize grocery stores to stock healthier options in San Francisco – interviews with non-participating store owners revealed that some were unable to meet the eligibility requirements due to practical considerations such as space and fear of loss of profits⁽²⁶⁾. Yet there is growing interest in initiatives aiming to improve the healthiness of food options in existing retail outlets. For example, the Healthier Oils Program in NSW, Australia offers advice to food service retailers on how to switch to healthier cooking oils in order to reduce saturated fat in the food supply (27). In Singapore, food service operators that make healthy changes to their menus are eligible to apply for a grant that can be used to promote their healthier options, under the Healthier Dining Programme⁽²⁸⁾. If these types of healthy food service initiatives are to grow, more needs to be known about how local governments can facilitate their implementation and overcome barriers.

- This study aims to identify how local governments can facilitate implementation and overcome barriers to healthy food service initiatives, using the case study of the Healthier Catering Commitment, a voluntary initiative implemented in London (Figure 1).
 - **Methods:**

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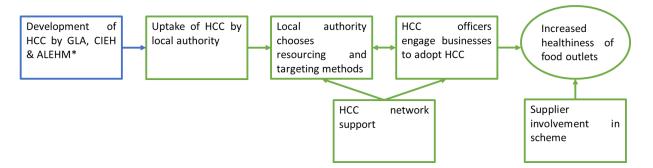
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- 111 Overall method and theory
- HCC was chosen to study through a document review of all accessible London local authority
- Local Plans, relevant Supplementary Documents and Health and Wellbeing documents, where
- it emerged as the most frequently mentioned initiative targeting the healthiness of options in
- 115 food service outlets.
- A qualitative descriptive method of enquiry was employed. The design of the study was based on a collective case study approach, in order to gain a broad understanding of the central phenomenon under study⁽²⁹⁾. A logic pathway of ideal implementation was used to guide interviews, analysis and presentation of results (Figure 2). Logic pathways demonstrate the sequence of activities involved in a policy or program and hypothesize the outcomes they are intended to achieve⁽³⁰⁾. This allowed us to identify potential elements to strengthen the implementation of healthy food service initiatives delivered at a local authority level, and to

understand how elements may be adapted to other social systems. The terms "implementation" and "delivery" are both used within this study to describe the actions taken by local government staff towards the outcome of food service outlets obtaining HCC certification, including engagement of businesses, internal resourcing etc. The term "implementation" is used in the context of policy theory⁽³¹⁾, and is therefore used when discussing theoretical implementation. "Delivery" is the term favoured by the local authorities interviewed for this study and is therefore used in examination of the results.



* HCC (Healthier Catering Commitment), GLA (Greater London Authority), CIEH (Chartered Institute of Environmental Health, ALEHM (Association of London Environmental Health Managers)

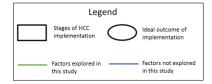


Figure 2: Logic pathway of ideal implementation of Healthier Catering Commitment

Data collection

The lead author conducted key informant interviews using a semi-structured interview schedule. Participants were 1) those delivering or overseeing delivery of the HCC within local government or supporting organisations (e.g. that provide funding or technical expertise for HCC delivery) and were identified using a purposive sampling approach and 2) individuals who could give context to the HCC, e.g. a supplier involved in the HCC, others involved in healthy food service initiatives, and were identified through snowball sampling and were invited to participate via email. Purposive sampling was employed in order to collect the

perspectives of individuals with the most proximate knowledge of delivering HCC to businesses. Data triangulation was pursued through the inclusion of individuals at different levels of seniority and involvement (e.g. Environmental Health Officers delivering HCC and Public Health Leads overseeing delivery), from different departments (Environmental Health, Public Health), from different local authorities, and the inclusion of individuals from supporting organisations. Local authorities were identified as participating in the HCC through the 2016 Good Food for London guide⁽³²⁾ and communication with the HCC network, a collection of individuals from local authorities who delivered the initiative. HCC coordinators were asked to participate by an email sent out by the HCC network coordinator and were reminded at an HCC network meeting. At the time of this study, there were 24 local authorities delivering the HCC⁽³³⁾, all of whom had a representative in the HCC network. Participant recruitment was conducted until data saturation was reached where no new themes emerged from the interviews, and the research questions had been sufficiently addressed.

An interview guide containing open-ended questions were developed prior to the interviews, developed based on existing experience with food policy implementation research by several authors. An interview guide was developed for each type of participant (e.g. local authority HCC coordinator, HCC-supporting organisation, supplier engaged in HCC etc.). See Appendix I for interview running sheets. Questions examined the participants role in delivering the HCC, challenges in engaging food businesses in the initiative and strategies for overcoming them, existing tools and resources used to deliver the HCC, and how the HCC could be improved.

Semi-structured interviews were conducted by the lead author either in person at a location and time convenient to participants (at their place of work, excepting one participant who attended the University of the lead author), or over the phone if no convenient time could be determined between the interviewer and interviewee to meet in person. Interviews lasted from 25 to 70 minutes. Interviews were audio recorded and then transcribed by a professional transcription company. Participants were given the opportunity to review their transcripts over email, with two interviewees adding further details to their statements. The remainder of participants agreed with their transcripts in their entirety or did not respond to the communication.

<u>Analysis</u>

Thematic coding and organisation of themes arising from all interviews was conducted by the lead author using QSR NVivo Version 11⁽³⁴⁾. An open coding approach was employed, with descriptive codes applied to blocks of text⁽³⁵⁾. Deductive and inductive coding approaches were

178	applied. Descriptive codes were organised into overarching deductive themes related to
179	implementation stage, see Figure 2 (i.e. uptake of HCC by local authority, business engagement
180	method, adoption by food business, and effectiveness of changing food offer). If descriptive
181	codes did not map onto any implementation stage, they were organised under emergent themes
182	as arising from the text. Themes and sub-themes were identified by the consistent contribution
183	of ideas across participants. Another researcher conducted thematic analysis of three of the
184	interviews with HCC coordinators, with discrepancies resolved and final key themes
185	consolidated through discussion with the lead author.

- This study was conducted according to guidelines laid down in the Declaration of Helsinki⁽³⁶⁾
- and all procedures involving research study participants were approved by [REMOVED FOR
- 188 BLINDING]. Written informed consent was obtained from all participants.

RESULTS

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- 190 Forty-four individuals were invited to participate in an interview, of which 22 participated.
- 191 Seventeen of these individuals were directly involved in, or supporting delivery of the HCC
- 192 (representing 10 of the potential 24 local authorities), and the remainder were individuals who
- 193 could give context to the HCC. Table 1 describes participant details.
- 194 TABLE 1 INSERT HERE

195 Overview of results

- 196 Results are reported according to the stage of implementation pathway; (1) the choice of local
- authorities to deliver HCC, (2) methods targeting food businesses, (3) the adoption of HCC by
- food businesses, (4) the effectiveness of the HCC at increasing the healthiness of the food
- environment within these contexts, and (5) the supplier perspective. Within each stage, results
- are organised according to barriers, facilitators, and participant recommendations (presented in
- 201 matrix form in Table 2).
- 202 TABLE 2 INSERT HERE

Uptake of Healthier Catering Commitment by local authority

204 Facilitators

- The local authorities interviewed perceived the HCC as a key part of a package of strategies
- designed to improve food environments to deliver on their commitments to improve diet-

207 related public health in their communities. HCC officers reflected on the many positives of the 208 initiative, stating that it was easy to deliver, recruit and assess due to the existing resources and 209 documents available. 210 "...in terms of the actual package and the resources available, it's quite easy to pick...I mean 211 it's not like myself or anybody in the council needs to develop it further" HCC Officer, Local 212 Authority 7 213 **Barriers** 214 Participants reflected on why other local authorities did not deliver the HCC, or stopped delivering it, noting that there had been limited or reduced funding to local authorities as a 215 216 whole, and Environmental Health teams in particular. Funding for HCC was largely focused 217 on employing HCC Officer/s. "...a lot of local authorities have faced funding cuts, so they just cannot dedicate the same 218 resource and capacity to delivering the HCC." Project Officer, Supporting Organisation 1 219 220 **Further resources and actions to enhance implementation** 221 Participants spoke to the idea of making HCC mandatory for all new businesses and suggested 222 that having a dedicated HCC Officer in each borough would enable them to deliver the 223 initiative to more businesses. "I think it should be mandatory...because it's not too hard to implement, especially if new 224 225 premises are coming." HCC Officer, Local Authority 10 226 Choosing resourcing and targeting methods 227 **Facilitators** 228 Not only was the HCC seen as easy to deliver, but delivery could be tailored to the existing strengths and resources of the local authority. Among interviewed local authorities, delivery 229 230 was done by 1) a dedicated Environmental Health Officer (EHO) who delivered HCC with the 231 support of the public health team, 2) all EHOs delivered the initiative as part of their normal 232 duties, or 3) delivery was contracted to an external organisation. Delivery of the initiative via an external organisation played to the strengths of this particular community; the organisation 233

in question had existing ties to the community, experience working in food environments, and

was able to assign more time to deliver the initiative than the EHOs. In contrast, the benefit of

using EHOs was that in their role as a local authority representative, business owners were

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- more familiar and responsive to their approaches to join. Delivery was usually enacted through
- both public health and environmental health teams through varying different means (as
- 239 described above) and was seen to capitalise on the expertise of each department.
- 240 "HCC is mainly driven by environmental health...[and] I borrow the nutritionist's expertise
- 241 from the health and wellbeing team". HCC Officer, Local Authority 5
- 242 Resourcing of the HCC officer varied across councils, from a dedicated full-time position, to
- one with one day a fortnight, reflecting the different prioritisation of the local authorities. Some
- 244 HCC officers had targets on how many businesses to sign up.
- 245 "And, within each of the environmental health officers' remit [they] are...given a target to sign
- 246 up new business to Healthy Catering Commitment." Public Health Lead, Local Authority 5
- 247 There was divergence in how participants viewed the role of the EHO in relation to HCC
- 248 delivery. EHOs most commonly interact with businesses through the monitoring and
- 249 enforcement of mandatory food safety regulations. This existing relationship gave them the
- opportunity to deliver the HCC initiative, but created a challenge in terms of differentiating
- between the mandatory (food safety) and voluntary (HCC) initiatives. Some participants
- viewed this factor as important in getting businesses to consider the HCC, while others
- 253 reflected that they wanted to ensure the voluntary nature of the initiative was clear.
- 254 Participants drew heavily on shared resources to deliver the HCC, making efficient use of
- existing tools, and drawing on knowledge and expertise. These were drawn from three sources:
- 256 1) the HCC network, where HCC officers were able to share new techniques and resources (e.g.
- 257 flyers), while coming up with solutions together; 2) resources shared across local authority, e.g.
- drawing on nutrition expertise in another local authority; and 3) resources shared within council
- e.g. relying on the environmental health officers to identify which food businesses may be more
- willing to sign up to the HCC, or the use of internal printing services.
- 261 "... the [Healthier Catering Commitment] network is so great, when I drop an email...they
- 262 would ask their nutritionist on my behalf." HCC Officer, Local Authority 7
- Due to limited resources, HCC officers focused on being strategic, practical and effective with
- the delivery of the initiative. For example, one geographical location would be targeted at a
- 265 time, chosen by areas of highest obesity rates, surrounding schools, or being located on a busy
- 266 high street. Types of cuisines were also targeted at the same time, allowing the HCC officers

to understand what healthy changes were feasible and likely to be culturally acceptable, and used this approach for similar businesses. This approach enabled HCC officers to play on the competitive nature of the businesses, by noting that competitors had signed up to the initiative and would attract more customers as a result.

"...we also found it quite useful to target one type of business at a time, for example, at one point we did most of the falafel shops in the borough and that was quite useful in terms of knowing how they prepare the food and that gives us - it makes us an expert in one area." HCC officer Local Authority 4

Barriers

The task of engaging owners and supporting changes was viewed as time and resource intensive, with varying rates of success. Getting in touch with the correct person, convincing them to join, and walking them through the changes often required several onsite visits to each business. HCC officers often completed HCC work as one aspect of their role in the local authorities, and therefore had to balance competing demands. HCC officers were often required to seek nutrition information from other sources.

"... it's just been very difficult to get businesses to be interested because these are often people we can't even get hold of. It's difficult to get hold of owner, they've got staff working in these places and you can't even get to the owner." Public Health Lead, Local Authority 7

For some local authorities, the cross-departmental relationship between Public Health and Environmental Health required to deliver the HCC could be strengthened, with inherent tensions existing that come from working across councils (e.g. competing or different priorities).

Further resources and actions to enhance implementation

There was ongoing resource and tool development that participants believed would aid further recognition, uptake, and customer demand for HCC. This included promotional materials being developed by the Greater London Authority (GLA). These promotional materials were part of a larger movement towards centralised resources, and greater involved of the GLA. Increasing the consistency of branding and awareness of HCC across London would improve the uptake of the initiative by businesses and raise awareness amongst customers.

"And then as I said, the resources that they're now creating, I don't know how they're going to work, but there's never been any publicity at all 'cause it's all been disparate. Different boroughs have put different amounts of money into it, it's all been very disparate, and different boroughs are doing different things. So to make it more unified, maybe, across London." HCC Officer, External Organisation delivering to Local Authority 2

Adoption by food businesses

Facilitators

Participants encouraged businesses to join by conveying the following potential benefits: a growing demand for healthier options; discounted products from a supplier; promotion by the local authority; offering discounted hygiene and allergy training; and that it was free to join. Perseverance was key to engaging businesses, particularly in overcoming the challenge of getting in touch with owners and managers. HCC officers found that being persistent, flexible with visiting times, and taking the time to communicate with and address concerns of the owner was essential to engagement.

"Publicity is a good offering. Any business would love to get free publicity. We offer free food hygiene training and obviously it's the sticker and being able to be identified with being a healthier premises, or at least an award-winning premise. ... And those sort of forward-thinking premises would love to jump on this." HCC Officer Local Authority 8

Another engagement method was highlighting the potential benefit the business could make to the health of the community, by reflecting on the high obesity rates of children in their local area, and how unhealthy food contributes to this phenomenon.

"...I talk about sort of local, the fact that obesity is quite high in [Local Authority 7] compared to other parts of London or nationwide". HCC Officer, Local Authority 7

"...I try to explain how, regarding their type of business, how we can contribute to the public health or the health of the population in [Local Authority 3]. HCC Officer, Local Authority 3 Some businesses were more open to joining the initiative: where the owner or chef has an existing interest in nutrition or had a personal experience with nutrition-related chronic diseases, and/or when they perceived a benefit in terms of attracting customers. Businesses that that were already selling some healthy food or that already met some requirements (e.g. kebab shops already served vegetables as sides) showed more interest. HCC officers capitalised on this by

initialling identifying what criteria the premise was already meeting. The HCC checklist

327 enabled them to demonstrate what small achievable steps could be made, was a good talking 328 point, and easy for business owners to understand. Furthermore, it didn't require a dietitian to 329 deliver. 330 "We're also recognising, in that process, premises that are already doing or that are already 331 half-way there, perhaps they serve really healthy vegetables and vegetables are at the forefront 332 of the display and that's really positive. So we can work on the positives and suggest that they 333 make one or two changes, in addition to that." HCC Officer, Local Authority 8 334 Across local authorities, HCC officers commonly reflected on having a tailored approach to 335 each business, depending on the owner, location, and type of food business. In particular, being 336 cognisant of how the initiative could be delivered within different language and cultural 337 contexts was essential in adoption by businesses. For example, creating language-specific 338 information sheets was essential in communicating the correct information. 339 "You have to understand their business or the culture around their business ... to be able to assess how you can do the HCC or how they can do the HCC." HCC Officer, Local Authority 340 3 341 342 **Barriers** Participants reflected on owners' reluctance to join, citing a fear of negative business outcomes, 343 344 prioritisation of selling high volumes of unhealthy food for as cheap as possible to maintain 345 competitiveness and value for money, with the alternative driving customers elsewhere. 346 Business owners were concerned that it would cost time and money to implement, and were 347 limited in some aspects of change, e.g. had been given drink fridges or menu boards from food 348 and beverage companies. 349 "[Business owners] see it as something that's going to cost them, and it's difficult in some 350 cases to see that they could benefit from that by serving smaller chip portions." HCC Officer 351 Local Authority 2 352 Cultural differences meant that some healthier options would be unfamiliar to customers, or 353 challenging to implement due to traditional cooking techniques. Access to healthier ingredients 354 that met religious specifications was also challenge for some business owners (i.e. accessing 355 low-fat dairy products for Jewish business owners). Owners often failed to see the advantage 356 in joining, given there were limited incentives to offer. Low recognition of the initiative was

also seen as an issue, while some owners did not understand the initiative, or had little health

358 359	knowledge. Language barriers often limited successful communication between HCC officers and business owners.
360 361 362	"Another challenge is that there is sometimes language barriers, communication. A lot of businesses don't have an email address or don't answer the phone." HCC Officer, Local Authority 1
363 364 365 366	Maintaining HCC was a challenge, and without ongoing pressure, businesses could return to their old modes of operation and would automatically lose eligibility for the initiative if their hygiene rating fell below a certain level. Some local authorities addressed this by working with businesses to increase their hygiene rating while implementing HCC.
367 368 369	"I've also gone back to some now to make sure they're still maintaining, not fallen off, you know. And most of them have maintained the criteria. And sometimes some have had to drop some of things." HCC Officer, Local Authority 4
370 371 372 373	Areas of deprivation experienced the aforementioned challenges more acutely and were harder to engage; they were more likely to be micro-businesses with low margins, more likely to drop in and out of meeting hygiene criteria and had a higher number of customers that were seeking value for money (i.e. large portion sizes at low costs).
374 375 376	"There was the challenge of going to more deprived areas that the businesses that are located in the most deprived areas of the borough, they tend to have, as a whole, tend to have lower food hygiene so we were trying to target them." HCC Officer, Local Authority 1
377 378 379	There were also constraints where businesses that only sold a small number of products were ineligible to join. Some businesses found it harder to meet the requirements, particularly if they predominantly sold fried food – indicating that the least healthy businesses may remain so.
380 381 382 383 384 385	Further resources and actions to enhance implementation Increasing the awareness and (consistency of) publicity of HCC was viewed as essential in both harnessing the existing desire for healthier options from customers, and in creating a "tipping point" of enough food businesses joining HCC to influence others to do the same. Being able to provide further incentives was also seen as a method of encouraging businesses to adopt the initiative.
386	Effectiveness at changing the food offer

Facilitators

- 388 Respondents from four of the ten local authorities interviewed mentioned using a tiered version 389 of the HCC initiative, where there were additional benefits to meeting more of the criteria, e.g. 390 having a bronze, silver and gold level. This was seen to encourage businesses to continue to 391 make healthy changes above and beyond the minimum requirements for joining. 392 "...it just encourages those businesses that are really keen to make further changes and those 393 who are at - they have a very high nutritional standard of food can apply to go on silver and 394 gold." HCC Officer, Local Authority 1 395 Three of the local authorities interviewed had award ceremonies where they would recognise 396 businesses that had exemplified shifts to healthier food provision. An HCC twitter account that 397 promoted new businesses that had joined the initiative was a useful way to encourage 398 customers to engage in the HCC. 399 HCC was often viewed as a "foot in the door" and starting point towards creating healthier 400 food environments, by changing the expectation of what businesses could achieve, and 401 customer demand for healthier options, and thus shifting the culture around healthy food 402 service. Rewarding businesses for making small changes was a long-term investment that could 403 pave the way for further changes to be made at a later stage. 404 "Because the good thing about the scheme is that it does recognise small changes and therefore it gives more avenue for more changes in future." HCC Officer, Local Authority 8 405 406 **Barriers** 407 With more focus on recruitment over maintenance and evaluation of the changes, it was 408 difficult to understand the impact of the initiative on customer behaviours and diets. 409 Participants thought that more could be done to leverage recruited food business to make 410 further changes in becoming healthier, and that resources or funding specified for evaluations 411 would help measure the impact of HCC implementation on the healthiness of food 412 environments. 413 "How do we monitor it afterwards to make sure that things are happening? So that it doesn't
- "I really do think that in general the HCC isn't given enough leverage afterwards. It's very easy to recruit and maybe do that assessment, and then what?" HCC Officer, External

become too costly for us to do it." Public Health Lead, Local Authority 6

417 Organisation delivering to Local Authority 2

418 419 420	In contrast with the benefit of recognising was the concern that HCC could create a "halo effect whereby takeaways that were still largely unhealthy food environments could be viewed as generally healthy because of the award.
421 422	" there's a lot of things on that menu that aren't healthy, especially in a take-away or a café that does fried food" HCC Officer, External Organisation delivering to Local Authority 2
423 424 425 426 427 428	This concern was particularly revealed in the approach taken by different authorities. Many HCC officers reported that they aimed to get as many businesses to sign up as possible, with some EHOs having their yearly goals or Key Performance Indicators (KPIs) include having a specific number of businesses signed up. Other local authorities noted that there could be more benefit by maximising the healthiness of fewer businesses. Participants reflected that it was possible for all food businesses to be healthier.
429	Further resources and actions to enhance implementation
430 431 432	Participants considered that there would be greater impact of the initiative if customers were able to locate the businesses that had been awarded the HCC. There was also discussion of an online map being developed that would enable this to occur.
433	Perspective of supplier involved in HCC
434	Facilitators
435 436 437 438	The supplier involved in the HCC noted that their business had invested time and resources into the initiative, e.g. offering a short-term discount on healthier products. They viewed their involvement as good for their long-term business and good for their customers, while creating a positive image of the company itself through favourable media pickup.
439 440	"We are still being perceived in the marketplace as the leaders in what we are doing here." Manager, Food supplier
441	Barriers
442 443 444 445	While supportive of HCC, the supplier noted that not many food businesses had taken advantage of the discount available on healthier options. Part of the motivation to be involved was recognition of responsibility they played in supplying unhealthy products, and the potential role in promoting healthier options, while recognising that manufactures had a big part to play
446	as well.

447 "... if I was to put my business hat on for the amount of time and effort and money that we 448 put into this, it hasn't given us a return. But again, I default back to my earlier answer which 449 is we still see it as a long-term investment. We still see it as the right thing to do and we 450 intend to keep following this path." Manager, Food supplier 451 Further resources and actions to enhance implementation 452 The supplier noted that other businesses may not see it as their responsibility to contribute to the healthiness of the food supply. Making it clear which options were healthier at a 453 454 manufacturer and/or supply level was recommended to further aid healthiness of food 455 provision. 456 **Discussion** 457 This study offers a unique and in-depth examination of the barriers and facilitators to delivering 458 the London Healthier Catering Commitment from the perspective of local authorities and offers 459 key insights into how local governments in other contexts can facilitate successful 460 implementation of food service initiatives. 461 There were many factors that supported the uptake of the HCC by local authorities, including the existence of a fully formed initiative, and the sharing of resources, networks and knowledge. 462 463 Participants universally viewed the HCC network as an integral strength and resource that they 464 relied upon to share knowledge and learn from each other. The flexibility of the initiative meant 465 that it could be delivered differently across local authorities, a positive given their different 466 structures, relationships and strengths. Strategic targeting of businesses and demonstrating 467 culturally appropriate methods to meet the requirements engaged businesses, however low recognition of the initiative, and fear of customer loss were main obstacles in adoption. 468 469 Participants identified a number of actions that would aid implementation, including consistent 470 and London-wide promotion of the initiative to both businesses and customers to increase 471 recognition and demand, making HCC mandatory for new businesses, increased funding for 472 the role of HCC officers and towards evaluation of changes, and identifying healthier options 473 at a manufacturing level. 474 There is a paucity of research that examines the implementation of local government-led healthy food service policies, reflecting perhaps a lack of these policies in the first place, and 475 476 the lack of research literature that investigates them. Below we explore our results in the context of other local government delivered initiatives (25, 37, 38) as well as experiences of other 477

- implementors (e.g. researchers) who have partnered with small grocery stores (39) and restaurants (40-43).
- In our study, the uptake and delivery of initiatives by local authorities was limited by reduced or restricted funding, a common finding in similar studies in local governments (25, 37). Existing relationships between different parties, between environmental health and public health, and between HCC officers and business owners was seen to facilitate the delivery of the HCC; a
- finding echoed in previous literature ^(25, 42).

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- 485 We found that there were many engagement strategies that were echoed in previous literature, including making small changes at a time (37,39), offering incentives such as publicity and free 486 training (25, 37), considering the financial impacts (25, 37), delivering tailored and intensive 487 interventions (25, 39), the importance of considering language and cultural language differences 488 (25, 39), and highlighting the potential community benefit (39, 42). Similarly, many of the 489 challenges to business engagement had been previously discussed, such as the reluctance to 490 change (37), the perception that healthy food wasn't popular with customers and would result in 491 economic losses (37-39), working with limited resources (25) and a lack of interest from food 492 business owners (25). This study highlighted that local authorities had difficulty in engaging 493 businesses in areas of deprivation, citing lower hygiene ratings, lower profit margins, and 494 495 customers with more sensitivity to changes in price and portions. This echoes the findings of a 496 survey of UK local authorities and food businesses implementing various healthy food service 497 initiatives in areas of deprivation (37).
- The supplier involved in the HCC viewed their involvement as contributing to social good and as a strategic short- and long-term investment. While little other research has explicitly examined the perspective of suppliers, other retailers have expressed that healthy food policies contribute towards community stewardship (44) and make good business sense (45).
- Participants identified that greater and more consistent promotion of the HCC would enhance uptake by businesses and increase customer demand, consistent with findings from Bagwell (37) where there was confusion over different food service initiatives.
 - Strengths of this study include that 10 boroughs were included in the research, and multiple participants were requested from each of these, although not all participated. This allows us to gain multiple perspectives, which is of importance when considering the joint public health and environmental health delivery and interest in the initiative. Furthermore, the inclusion of auxiliary interviews provides a deepened contextual view of the initiative, its challenges and

the policy implications. A further strength is that one researcher conducted the interviews andanalysis, thereby having a deep knowledge of the data.

This study is susceptible to selection bias, in that it is likely that local authorities who are succeeding and more invested in delivering the HCC would agree to participate. A further weakness is that not all local authorities delivering the HCC agreed to participate, however all were invited. Future research could also explore what is holding back local authorities that are not engaging with the HCC or other healthy food retailers to gain a deeper understanding of the barriers in the first step of choosing to take up the HCC. Business owner and customer perspectives were not captured in this study, which have been explored previously⁽⁴⁶⁾. It is valuable to capture perspectives from multiple stakeholders to further elucidate the potential of food service initiatives to increase the provision and purchase of healthier foods, and how they could be incentivised. Further research could explore the impact of the HCC on customer nutrition choices, to add to the existing literature demonstrating that increasing the availability of healthier options and decreasing unhealthy options in restaurants leads to increased healthiness of the food environment ^(47, 48) and improved consumer choices ⁽⁴⁹⁾. Several HCC-specific recommendations arose from this study that are in response to the identified barriers:

- Consider how further incentives could be provided to businesses for meeting HCC criteria in order to engage businesses and encourage adoption.
- Targeted strategies for deprived areas that focus on their specific barriers to eligibility and adoption (e.g. developing menu items that are low-cost healthier alternatives, providing methods to reduce food wastage, increasing their food safety rating).
- Consider how to further leverage participating businesses to make additional changes to increase the healthiness of food environments (e.g. through using tiered versions of the HCC).
- Consider the balance between a focus on the quantity of businesses recruited to the HCC, and quality (i.e. extent of change of healthiness of food environment, maintenance of changes, demonstrated impact on purchases) and take a unified approach throughout.
- Evaluate the sustainability and maintenance of HCC changes within different businesses to determine how the healthiness of options in food outlets is changing.
- Investigate if and how businesses are using supplier discounts, and how this impacts HCC maintenance and business outcomes (e.g. profit margin).

- Reflecting on the strengths of the HCC and how they might function in other contexts, this study elucidated lessons for other local governments exploring the potential of delivering healthy food service initiatives:
 - Use the existing networks and relationships between local governments, community-based organisations and local food businesses to develop community-tailored delivery methods.
 - Identify the strengths, reach and capacity within local governments and across departments (i.e. environmental and public health) to capitalise on existing expertise.
 - Understand the density, cuisine and ownership of food outlets in order to develop practical, culturally-relevant, and efficient delivery methods (e.g. in areas of low food outlet density assign initiative delivery to all EHOs who would be visiting these premises anyway).
 - Reflect and revise the standards of entry to the initiative, or consider adding additional 'tiers' as more businesses become successful in their goal of creating healthier food environments to leverage already engaged businesses to become even healthier.
 - Explore how to increase awareness of the initiative amongst businesses and create demand for customers (i.e. simultaneously work on supply and demand driven factors, such as customer demand for healthier options⁽³⁹⁾).

Conclusion

In this study we consider multiple aspects of local authority decision making and involvement in the Healthier Catering Commitment initiative. Local governments and other organisations seeking to improve the healthiness of offerings in food service outlets in their jurisdictions should consider existing interactions with food service outlets as avenues for initiative engagement and delivery, and the use of personnel resources in a targeted manner. Working closely with food outlet owners and managers to implement healthy changes that are acceptable to their customers and which maintain business profits is likely to enhance the maintenance and sustainability of such changes. The exacerbated challenges of initiative engagement, delivery and maintenance in food outlets within areas of disadvantage means these businesses are likely to require additional support.

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689 TABLES AND FIGURES

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Role (environmental health qualifications)	Organisation	Team within local Authority
HCC* Officer	Local Authority 1	Public Health
HCC Coordinator (EHO**)	Local Authority 2	Environmental Health
HCC Officer (EHO)	Local Authority 3	Environmental Health
Senior Practitioner	Local Authority 3	Public Health
HCC Coordinator (EHO)	Local Authority 4	Environmental Health
Public Health Lead	Local Authority 4	Public Health
Environmental Health Lead	Local Authority 5	Environmental Health
Public Health Strategist	Local Authority 5	Public Health
Public Health Strategist	Local Authority 6	Public Health
HCC Officer	External Organisation delivering HCC to Local Authority 2 and 6	N/A
HCC Officer	Local Authority 7	Environmental Health
Public Health Lead, PH	Local Authority 7	Public Health
HCC Officer (EHO)	Local Authority 8	Environmental Health
Public Health Strategist	Local Authority 9	Public Health
Public Health Officer	Local Authority 9	Public Health
HCC Officer	Local Authority 10	Environmental Health
Senior Policy Officer	Supporting Organisation	N/A
Manager	Supporting Organisation	N/A
Manager	Supporting Organisation	N/A
Manager	Supplier involved in HCC	N/A
Manager	Evaluation Organisation	N/A

Manager	Industry Group	N/A
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*Healthier Catering Commitment **Environmental Health Officer Table 1: Participant characteristics

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		from open coding unde ors, barriers, and further re	-
Themes (stage of logic pathway to HCC implementation)	Facilitators	Barriers	Further resources and actions to enhance implementation
Uptake of HCC by local authority	Existing scheme easy to pick up	 Limited funding for delivery Additional workload to environmental health officers 	 Making HCC mandatory for all new businesses Having dedicated HCC officer in each borough
Local authority chooses resourcing and targeting methods	 Existing relationships between environmental health and food businesses Flexible delivery plays to strengths of local authority Partnership between environmental and public health draws on expertise Sharing resources capitalises on existing knowledge Strategic targeting to make efficient use of time 	 Resource and time intensity of delivery Sometimes weak existing relationships between environmental and public health 	Creating more centralised resources
Adoption by food businesses	 Incentives to join Increased customer interest in health Checklist easy to understand and accessible 	Owners fear loss of business due customers not accepting smaller, healthier portions	• Consistent promotion to increase awareness of scheme for

	 Some businesses only had small changes to make to meet criteria Feasible, culturally acceptable and tailored way to deliver to different businesses 	 Communication and contact with food business owners Eligibility criteria to join excludes some businesses Challenges exacerbated for businesses in areas of deprivation 	businesses and customers • Providing further incentives to businesses for joining
Effectiveness of changing food offer at outlets	 Delivering tiered scheme encourages businesses to go above and beyond Public recognition of success through award ceremony HCC as the first step of many towards creating healthier food environments 	 May mislead customers to perceive all food options in business as 'healthy' Little measurement of maintenance of HCC More difficult for unhealthy businesses in areas of low deprivation to join 	 Additional funding to conduct evaluation of change in food environment Online map for customers to identify participating businesses
Perspective of supplier involved in HCC	 Supplier perceived as being a leader in the restaurant supply industry Positive health impact on customers Long-term outlook essential 	 Rest of supply industry perceives they don't have the responsibility Other suppliers not acting in the space 	• Identifying what products are healthy at a manufacturing level

Table 2: Summary of barriers and facilitators emerging from participant interviews

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695 Appendix I: Interview guides

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Interview guide for local authority participants

- Can you tell me about your role at *your local authority*?
- Can you tell me a bit about the work you do in relation to the Healthier Catering
 Commitment?
- How have you approached retailers to involve them in these initiatives?
- Have you had any challenges in working with retailers or engaging them in healthy food
 initiatives? If so, please explain what they have been.
- How did you find was the best way to overcome these challenges?
- Are there any tools or resources that you rely on to implement these initiatives? (Either within or outside of the local authority)
- Were there any additional resources or tools that would have been useful in addressing these
 challenges?
- Did you have anything else you wanted to add?
- Is there anyone else at your local authority or other local authorities that you think might be
 interesting to talk to?

711 <u>Interview guide for supporting organisations</u>

- Can you tell me about your role at *your organisation*?
- Can you tell me a bit about the work you do in relation to the Healthier CateringCommitment?
- How does your organisation support the delivery of the Healthier Catering Commitment?
- Have you had any challenges in supporting the Healthier Catering Commitment delivery? If
 so, please explain what they have been.
- How did you find was the best way to overcome these challenges?
- Are there any tools or resources that you provide to local authorities to support the delivery of
 the Healthier Catering Commitment?
- Were there any additional resources or tools that would have been useful in supporting the
 delivery of the Healthier Catering Commitment?
- Did you have anything else you wanted to add?

724 725	•	interesting to talk to?
726	Interv	iew guide for supplier involved in HCC
727	•	Can you tell me about your role at *your organisation*?
728 729	•	Can you tell me a bit about how your organisation is involved in the Healthier Catering Commitment?
730 731	•	How did the involvement with the Healthier Catering Commitment come about? Please step me through the process.
732	•	What kind of products to you supply?
733	•	Who are the main food service outlets that you supply?
734 735 736	•	What kind of considerations did you think about when starting this work with the Healthier Catering Commitment? For example, did you consider any potential impact on your businesses profits?
737 738	•	What do you think the outcomes for your business have been as a result of your involvement with the Healthier Catering Commitment?
739 740	•	Why do you think your company has become involved in the Healthier Catering Commitment when other suppliers haven't?
741 742	•	Are there any challenges that you have experienced or foresee in promoting and selling healthier options?
743	Interv	iew guide for evaluation organisation
744	•	Can you tell me about *your organisation* and your role here?
745 746	•	Can you tell me a bit about how your organisation is or has been involved in the Healthier Catering Commitment?
747 748	•	What are some of the other healthy food service or food retail strategies or evaluations that you have been a part of?
749 750	•	Have you had any challenges in working with retailers or engaging them in healthy food initiatives? If so, please explain what they have been.
751	•	How did you find was the best way to overcome these challenges?
752 753	•	Are there any tools or resources that you rely on to implement these initiatives? (Either within or outside of the local authority)

754 755	•	Were there any additional resources or tools that would have been useful in addressing these challenges?
756	•	Did you have anything else you wanted to add?
757	Interv	riew guide for industry group
758	•	Can you tell me about *your organisation* and your role here?
759	•	Can you tell me how *your organisation* sees the role of your industry in healthy eating?
760 761	•	What are the kinds of initiatives that your industry has implemented to promote healthy eating?
762 763	•	What do you think is the role for other organisations and sectors involved in the food industry?
764 765	•	What do you think are the most important factors that influence consumer choice? How does health factor into this? How might this be different from 5 or 10 years ago?
766 767	•	There are often comments made about how unhealthy food is cheaper – could you comment on that?
768	•	What do you think the role of the government should be in supporting healthy eating?
769	•	Did you have anything else you wanted to add?
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771		
772		