

## **G12 - Supporting papers for Telford & Wrekin Council's response to Matter 4.4 of MIQs**

### **Evidence Document submitted by Telford & Wrekin Council post Submission**

Telford & Wrekin Council wishes to submit three supporting Research papers to examination:

- Associations between exposure to takeaway food outlets, takeaway food consumption, and body weight in Cambridgeshire, UK: population based, cross sectional study – published by BMJ 13 March 2014
- HUDU Planning for Health - Using the planning system to control hot food takeaways - A good practice guide Public – published by NHS London Healthy Urban Development Unit February 2013
- Public Health Outcomes Framework (PHOF): Telford & Wrekin Update Report, August 2016

with reference to the council's response to Matter Question 4.4 of the Inspector's Matters, Issues and Questions (MIQs) in relation to the control of Hot Food Takeaways (Use Class A5).

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## RESEARCH

# Associations between exposure to takeaway food outlets, takeaway food consumption, and body weight in Cambridgeshire, UK: population based, cross sectional study

 OPEN ACCESS

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## Abstract

**Objectives** To examine the association between environmental exposure to takeaway food outlets, takeaway food consumption, and body weight, while accounting for home, work place, and commuting route environments.

**Design** Population based, cross sectional study, using data on individual participants' diet and weight, and objective metrics of food environment exposure.

**Participants** Working adults participating in the Fenland Study, Cambridgeshire, UK (n=5442, aged 29-62 years), who provided home and work addresses and commuting preferences. Takeaway food outlet exposure was derived using data from local authorities for individual environmental domains (at home, at work, and along commuting routes (the shortest route between home and work)), and for exposure in all three domains combined. Exposure was divided into quarters (Q); Q1 being the least exposed and Q4 being the most exposed.

**Main outcome measures** Self reported consumption of takeaway type food (g/day; pizza, burgers, fried foods, and chips) using food frequency questionnaires, measured body mass index, and cut-offs for body mass index as defined by the World Health Organization.

**Results** In multiple linear regression models, exposure to takeaway food outlets was positively associated with consumption of takeaway food. Among domains at home, at work, and along commuting routes, associations were strongest in work environments (Q4 v Q1;  $\beta$  coefficient=5.3 g/day, 95% confidence interval 1.6 to 8.7;  $P<0.05$ ), with evidence of a dose-response effect. Associations between exposure in all three domains combined and consumption were greater in magnitude across quarters of exposure (Q4 v Q1; 5.7 g/day, 2.6 to 8.8;  $P<0.001$ ),

with evidence of a dose-response effect. Combined exposure was especially strongly associated with increased body mass index (Q4 v Q1; body mass index 1.21, 0.68 to 1.74;  $P<0.001$ ) and odds of obesity (Q4 v Q1; odds ratio 1.80, 1.28 to 2.53;  $P<0.05$ ). There was no evidence of effect modification by sex.

**Conclusions** Exposure to takeaway food outlets in home, work, and commuting environments combined was associated with marginally higher consumption of takeaway food, greater body mass index, and greater odds of obesity. Government strategies to promote healthier diets through planning restrictions for takeaway food could be most effective if focused around the workplace.

## Introduction

Neighbourhood food environments ("foodscapes") have been labelled "obesogenic" when they facilitate the overconsumption of energy dense, nutrient poor foods, and increased levels of overweight and obesity.<sup>1</sup> Understanding the influence of such foodscapes on diet and health has become more urgent with recent changes in society. During the past decade in the United Kingdom, consumption of food away from the home has increased by 29%,<sup>2</sup> while the number of takeaway (or fast food) outlets has increased dramatically.<sup>3</sup> These social and environmental trends could be contributing to rising levels of overweight and obesity.<sup>4</sup> Policy makers are beginning to engage with the idea that unhealthy neighbourhood food environments might encourage unhealthy food choices,<sup>5</sup> and could therefore be contributing to the obesity "epidemic."<sup>6</sup> As such, modifying the distribution and density of takeaway food outlets in cities and neighbourhoods is becoming an increasingly important

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**Web appendix:** Supplementary material

element of nutrition and health policy in both the UK<sup>7-9</sup> and United States.<sup>10 11</sup>

Patronage of takeaway food outlets and overconsumption of takeaway foods have been linked strongly to low diet quality and to weight gain.<sup>12-17</sup> This link could be due to the types of foods obtained in these outlets, which tend to be energy dense,<sup>18</sup> and because consumers often greatly underestimate their energy consumption when eating in these outlets.<sup>19 20</sup> However, despite increasing policy focus, identifying the association between exposures to unhealthy neighbourhood food outlets, diet, and body weight has proved challenging,<sup>21 22</sup> and the evidence base remains equivocal.<sup>23-26</sup> A recent systematic review found that, of those studies examining these exposures in relation to increased body weight, fewer than half reported positive associations.<sup>25</sup> Even fewer studies have found positive associations with unhealthy dietary outcomes.<sup>24 25</sup> Overall, little of this research has been conducted in the UK.<sup>27</sup> This evidence base is therefore not well placed to support governmental environmental interventions into the modification of supposedly obesogenic neighbourhoods.

Inconsistent findings among studies might be explained by differences in methods,<sup>21</sup> including varying definitions of the term “neighbourhood,”<sup>28</sup> differences in exposure metrics and food outlet type,<sup>27</sup> and differences in assessment of dietary intake.<sup>29</sup> However, many of these studies may be further limited by solely focusing on exposures to food outlets in residential neighbourhoods. There is a growing acknowledgment of “activity spaces,”<sup>30</sup> the environments used by individuals to fulfil tasks and move between locations,<sup>30</sup> which have been shown to extend well beyond the boundaries of residential neighbourhoods.<sup>31-33</sup>

Foods consumed away from the home are typically less healthy than those consumed at home.<sup>18 34</sup> Therefore, the environments around workplaces and commuting routes, for example, are important areas of study and potential targets for government policy intervention. One study found an inverse association between the density of takeaway food outlets in work neighbourhoods and body mass index, but no association with levels of exposure to takeaway food outlets surrounding the home.<sup>35</sup> Other studies have focused on objectively captured daily estimates of food outlet exposure,<sup>33</sup> or exposures to built and food environments along routes between home and non-home destinations.<sup>36-38</sup> Substantial differences between takeaway food environments at home and away from home may underpin differential associations with dietary and weight outcomes in each setting.<sup>33 35 39</sup> In summary, relying on estimates of takeaway food outlet exposure in residential areas alone is likely to underestimate total exposure within wider activity spaces, therefore compromising our ability to detect true associations between individuals and their environments.<sup>39</sup>

In a UK population based, cross sectional study with data on diet and measured body weight, we examined the extent to which exposure to takeaway food outlets in home and non-home environments was associated with consumption of energy dense takeaway foods, body mass index, and odds of overweight and obesity. We also tested for effect modification by sex.

## Methods

### Study sample

The Fenland Study is an ongoing, population based cohort study of adults aged 29-62 years (born between 1950 and 1975) in Cambridgeshire, UK ([www.mrc-epid.cam.ac.uk/research/studies/fenland-study/](http://www.mrc-epid.cam.ac.uk/research/studies/fenland-study/)), conducted by the MRC Epidemiology

Unit. Recruitment began in 2005 from general practice lists in Ely, Wisbech, Cambridge, and surrounding villages. At the time of analysis, data for 10 452 participants were available.

Participants completed questionnaires relating to their general lifestyle and medical history, and were weighed and measured by trained researchers.<sup>40</sup> Participants also completed a food frequency questionnaire to assess the habitual consumption of foods.<sup>41</sup> From the sample, we removed participants who had incomplete data for their work addresses (n=3129), lived or worked far outside Cambridgeshire (n=519), or did not report their travel mode to and from work (n=1729), including those who worked from home. These exclusions left a sample size of 5594. Despite these restrictions, our analytical sample remained representative of the full Fenland Study sample in terms of age, sex, body mass index, household income, and educational distributions (web table 1). All study procedures were approved by the Health Research Authority NRES Committee East of England-Cambridge Central.

### Exposure—food environment

We have previously described the methods for defining food environment exposures at home, at work, and along commuting routes.<sup>39</sup> Briefly, participants' home and work addresses were mapped by postcode using a geographic information system (ArcGIS 10, ESRI). Postcodes in the UK allow for relatively precise geocoding, with each postcode area containing only 15 addresses on average.<sup>42</sup> Home and work neighbourhoods were defined as circular buffers with a 1 mile Euclidean (straight line) radius centred on these locations, based on previous studies suggesting that this definition relates closely to actual food purchasing behaviours among adults.<sup>43</sup> Accurate data on food outlet locations<sup>44 45</sup> were sourced from 10 local councils covering the study area in December 2011, and again mapped by postcode. Food outlet listings are maintained by local councils to facilitate routine inspections of hygiene standards.

All food outlets were classified by one researcher, based on a classification system for food environments developed by Lake and colleagues.<sup>44</sup> Web table 2 provides details of our takeaway food outlet definition. UK local authorities typically categorise these outlets as “hot food takeaways” (class A5 under the Town and Country Planning 2005 Use Classes Order).<sup>9</sup> Planning restrictions are beginning to apply to these types of food outlets,<sup>7-9</sup> making our definition of a takeaway food outlet particularly relevant to policy. We excluded workplace canteens and other food outlets not selling directly to the public from analyses. Numbers of takeaway food outlets and supermarkets were counted within participants' neighbourhoods as a measure of outlet density; no denominator was necessary because of the standardised buffer size used to define neighbourhoods. Commuting routes were modelled according to the shortest distance along the street network between home and work addresses, using the ArcGIS Network Analyst and OS MasterMap Integrated Transport Network.

Fenland Study participants also recorded their commuting travel modes and frequency. We allowed modelled routes and exposure to takeaway food outlets (counts) along these routes to vary by transport mode. We used 100 m route buffers for walking and cycling journeys; 500 m buffers for car journeys; and no buffers (assuming zero exposure) for bus journeys (except for walking buffers along the route from home to the nearest bus stop from home; and from the bus stop nearest to work, to work). For participants making multimodal journeys or for those using different modes of transport on different days, we calculated weighted route exposures, as described previously.<sup>39 46</sup>

## Outcome—dietary intake, body mass index, and odds of overweight and obesity

A primary outcome variable was the consumption of specific energy dense foods that are commonly obtained from takeaway food outlets. Using data from the food frequency questionnaire, we estimated grams of daily intake of pizza, burgers, fried food (for example, fried chicken), and chips. Together, these foods provided a marker of takeaway type food consumption (g/day), referred to here as “takeaway food.” As a second primary outcome, body mass index was calculated from measured heights and weights. As a secondary outcome, we used World Health Organization cut-offs for body mass index to define under and normal weight (body mass index < 25), overweight (≥ 25–30), and obesity (≥ 30).

### Statistical analyses

We used multiple linear regression models to estimate associations between takeaway food environments, and consumption of takeaway food and body mass index in the following environments:

- At home only
- At work only
- Along commuting routes only
- Exposures at home, at work, and along commuting routes combined.

We used multinomial logistic regression models to estimate associations when using overweight and obesity as outcomes. We modelled exposures to takeaway food outlets in all environmental domains as quarters of counts of takeaway food outlets (densities) using dummy variables (relative to the least exposed reference category, quarter 1). The addition of covariates into the models was theoretically informed a priori and included the following variables:

- Age, sex, total household income, and highest educational qualification (as proxies for individual level socioeconomic status)
- Car ownership (as a proxy for mobility beyond the immediate neighbourhood)
- Total energy intake (kJ/day, for models of takeaway food consumption only)
- Smoking status, for models of body mass index only
- Physical activity energy expenditure (kJ/kg per day), for models of body mass index only.

Physical activity was objectively assessed in the Fenland Study using combined heart rate sensors and accelerometers (Actiheart, CamNtech), which were worn for up to six days.<sup>47–48</sup> We calculated physical activity energy expenditure using the resultant intensity time series data,<sup>49</sup> and added this as a continuous covariate into all models related to body weight. Participants with less than 48 h wear time (n=152) were excluded from analyses, resulting in an analytical sample for body mass index models of 5442 participants. We included education as a covariate because it was patterned by environmental exposure (web table 3), but we also conservatively adjusted for household income, despite a lack of obvious patterning. All models additionally controlled for the availability of supermarkets to account for food environment “context,” specifically to allow for the fact that takeaway type foods can also be purchased from supermarkets, and therefore to minimise confounding.<sup>26</sup> Models accounting for journey exposure also adjusted for journey length, which could otherwise

confound the association between commuting route exposure and outcomes of interest. We added interaction terms into our models, to test for the moderating effect of sex on our exposure-outcome associations.

In sensitivity analyses, we ran less conservative models that adjusted for each indicator of individual level socioeconomic status (education or household income) separately. We also conducted analyses omitting supermarket exposure as a covariate in statistical models. Finally, we ran models without adjusting for car access, because there was little heterogeneity in car access in this sample. All analyses were conducted using PASW Statistics 21.

## Results

### Sample characteristics

Table 1 shows descriptive statistics for the study sample. Men and women differed on several individual level characteristics, including energy intake, body mass index, and daily consumption of takeaway food. On average, this sample was exposed to 9.3 takeaway food outlets at home, 13.8 at work, and 9.3 along commuting routes. Individuals were therefore exposed to 48% more takeaway food outlet availability at work than at home. Mean exposure in home, work, and commuting route domains combined was 32.4 outlets.

### Associations between exposure to takeaway food outlets and intake of takeaway food

Exposure to takeaway food outlets was positively and significantly associated with consumption of takeaway food. Figure 1 plots  $\beta$  coefficients for the difference in consumption of takeaway food per quarter of exposure to takeaway food environments. These differences are shown according to home, work, commuting route, and combined environments. At home, individuals most exposed to takeaway food outlets (quarter 4) consumed significantly more takeaway food ( $\beta=4.9$  g/day, 95% confidence interval 1.5 to 8.3,  $P<0.05$ ) than those least exposed (quarter 1), but there was little evidence of a dose-response association between increasing exposure and consumption.

Exposure to food outlets in the work environment was positively associated with consumption of takeaway food, with evidence of a dose-response association. Individuals most exposed to takeaway food outlets at work consumed an additional 5.3 g/day (95% confidence interval 1.6 to 8.7) of takeaway food compared with those least exposed ( $P<0.05$ ). For exposure along commuting routes, we saw little evidence of a trend in consumption across exposure quarters. In all environments combined, we saw evidence of a positive dose-response association with consumption of takeaway food. The most exposed quarter consumed an additional 5.7 g per day (2.6 to 8.8) compared with the least exposed quarter ( $P<0.001$ ). Based on interaction terms, we found no evidence of effect modification by sex ( $P$  values across combined exposure quarters ranging from 0.173 to 0.761).

### Associations between exposure to takeaway food outlets and body mass index

Associations between exposure to takeaway food outlets and body mass index were equally consistent (fig 2). The group most exposed to takeaway food outlets (quarter 4) near home and along commuting routes, had a higher mean body mass index than those least exposed (difference of 0.97 and 0.65, respectively). However, there was little evidence of a

dose-response association between exposures and outcomes in these settings.

A positive dose-response association was observed between body mass index and exposure to takeaway food outlets near work. The most exposed group (quarter 4) had a higher mean body mass index (difference of 0.92,  $P < 0.05$ ), relative to those least exposed. In the model looking at combined exposures, we also saw evidence of a positive dose-response association between exposure and body mass index. The group most exposed to takeaway food outlets in all environments combined was estimated to have a body mass index 1.21 (95% confidence interval 0.68 to 1.74) greater than those least exposed ( $P < 0.001$ ). We found no evidence of effect modification by sex throughout ( $P$  values across quarters of combined exposure ranged from 0.292 to 0.705).

### Associations between takeaway food outlet exposure and obesity

Table 2<sup>||</sup> shows results using multinomial logistic regression to model odds of overweight and obesity in relation to levels of takeaway food outlet exposure. Associations were more evident between environmental exposures and being obese than between exposures and being overweight. The group of people most exposed to takeaway food outlets (quarter 4) at home were more than twice as likely to be obese than be of normal weight (odds ratio 2.15, 95% confidence interval 1.50 to 3.10), relative to those least exposed (quarter 1;  $P < 0.001$ ). A dose-response association between odds of obesity and takeaway food outlet exposure along commuting routes was not apparent, but those most exposed showed 38% greater odds of being obese than those least exposed (1.38, 1.01 to 1.88). We observed a positive dose-response association in odds of obesity with respect to exposures at work; those most exposed showed a 47% greater odds of being obese compared to those least exposed (1.47, 1.03 to 2.10). Similarly, there was a dose-response association between the odds of obesity and exposure to takeaway food outlets in all domains combined; the group most exposed was more likely to be obese than those least exposed (1.80, 1.28 to 2.53).

### Sensitivity analyses

In models adjusting for only one measure of socioeconomic status at a time (household income or education), associations between exposure to takeaway food outlets and takeaway food consumption and body mass index were similar to the main analyses (web figs 1-4). Effect sizes throughout were generally greater when adjusting for household income only (web figs 1 and 2), although trends within and between exposure settings remained consistent. Excluding car access from our models had little effect on regression coefficients and their respective confidence intervals (results not shown).

In our analyses of takeaway food exposure, mutual adjustment for supermarkets proved to be critical. In models that omitted supermarket exposure as a covariate, the associations between combined takeaway food outlet exposure, consumption of takeaway food, and body mass index were attenuated towards the null (web figs 5 and 6, upper right panels, respectively). We also found an inverse association between combined supermarket exposure, takeaway food consumption, and body mass index (web figs 5 and 6, lower left panels, respectively). Again, we found that the associations were attenuated towards the null if mutual adjustment for exposure to takeaway food outlets was not made (web figs 5 and 6, lower right panels, respectively).

## Discussion

To our knowledge, this is the first study of takeaway food outlet exposure to account for home, work, and commuting route environments, providing a more complete assessment of exposure to these outlets<sup>50</sup> in relation to the consumption of energy dense takeaway foods and measured body mass index. We found evidence of an environmental contribution to the consumption of takeaway food and body mass index in all exposure domains studied. For exposure to takeaway food outlets in the work neighbourhood, we saw a strong and significant association between the density of takeaway food outlets, takeaway food consumption, and body mass index, with evidence of a dose-response effect. After combining the exposures for home, work, and commuting environments, we found a highly significant association between increased exposure to takeaway food outlets and consumption of takeaway food, body mass index, and odds of obesity. Again, the combined domains showed evidence of a dose-response effect, with especially large effect sizes for body mass index and odds of obesity.

In our analyses, compared with people least exposed to takeaway food outlets, we estimate those most exposed consumed an additional 5.7 g per day of takeaway food, which would constitute a 15% higher consumption than those least exposed. In a week, this translates into an additional 39.9g of takeaway food. This weekly amount constitutes more than half a small serving of McDonald's French Fries (typically 71 g per serving)<sup>51</sup> and about one quarter of the grams of takeaway food purchased per person per week in the UK in 2010.<sup>52</sup>

Other studies have found small but potentially meaningful effect sizes similar to those found in our study. A US based study found that a 1% increase in exposure to takeaway food outlets in the home environment was associated with a 0.13% increase in takeaway food consumption.<sup>53</sup> From the current evidence base—which mostly focuses on the frequency of fast food consumption or fast food outlet visits in relation to body weight—it is difficult to determine whether this difference in consumption of takeaway food is clinically relevant in terms of its contribution to weight gain. However, longitudinal studies have found that increased patronage of fast food outlets was associated with excess weight gain over time in young adults.<sup>13 12</sup>

It has also been suggested that studies generally find more robust environmental associations with body mass index than with diet.<sup>54</sup> Indeed, associations were generally stronger with body mass index and odds of obesity than with diet in this study, although we found consistent and complementary associations between environmental exposure and both dietary and body weight outcomes throughout. Bias in our measurement of takeaway food consumption could explain why larger dietary effect sizes were not observed. Our measure was intended to be specific, although may not have been sensitive enough to capture all types of takeaway foods consumed.

Omitting soft drink consumption from our analysis could also have underestimated the wider intake of takeaway food associated with exposure; we focused on energy dense takeaway foods in particular. People most exposed overall to takeaway food outlets in this study were estimated to have a body mass index more than one unit greater than those least exposed, and to have nearly twice the odds of being obese. These differences in body weight and odds of obesity are substantial, and might be cued by the increased consumption of takeaway foods, which we also observed. Unlike previous studies,<sup>55 53 55</sup> we found no evidence to suggest that these associations varied according to

sex. Trends in diet and body mass index were consistent between men and women in response to this environmental exposure.

Among the three foodscape domains (home, work, and commuting), we found the greatest environmental associations with consumption of takeaway food at work. This result suggests the notion that such consumption is both place and time specific,<sup>39</sup> although more research is needed to investigate this hypothesis. A recent study identified an association between consumption of fast food at lunchtime and exposure to fast food outlets around school for children.<sup>56</sup> Similarly at work, we suggest that time imperatives drive food purchases from more proximal food outlets, selling ready prepared meals,<sup>57</sup> which could partly explain the strong associations observed in our study between these exposures and consumption of takeaway food.<sup>58</sup>

In relation to body mass index and odds of obesity, we found similar or stronger associations with maximum exposure to takeaway food outlets at home than with maximum exposure at work. However, this difference could indicate residual confounding, owing to unobserved environmental or social attributes covarying with exposure to takeaway food outlets in residential neighbourhoods only. Furthermore, workplace specific associations with body mass index have been found previously,<sup>35</sup> and while this was not the case here, the dose-response nature of this association provides complementary evidence that this exposure domain could be important in the determination of body weight.

We observed the strongest and most significant environmental associations when combining the exposures at home, at work and along commuting routes, which is consistent with the notion that behaviours are best understood in the context of the activity space.<sup>30</sup> The associations between exposure to takeaway food outlets, consumption of takeaway food, and body mass index were most consistent and robust, and were slightly stronger when domains were combined than in each domain separately. This association could reflect the greater and more realistic exposures estimated when accounting for the contributions of takeaway environments across three salient domains. Therefore, in developing our understanding of obesogenic environments, it is with caution that we should rely on studies suggesting a minimal environmental contribution to diet and weight from home neighbourhoods only.<sup>33</sup> Such a limited appreciation of exposure could partly explain the limited and mixed evidence base that has developed around foodscape contributions to diet and adiposity.

Our models were also sensitive to the inclusion or omission of supermarket exposure as a covariate. This sensitivity reflects the importance of accounting for the wider food environment as opposed to assessing exposure to perhaps only one type of food outlet. Previous studies have called for the assessment of exposure to this wider collective environment,<sup>26 59 60</sup> although such mutual adjustment is rarely made in the literature. Future studies should aim to provide a more comprehensive examination of food environment context, to detect more realistic associations between specific exposures and outcomes of interest.

## Implications for policy

Using local planning laws, policy initiatives have developed with the intention to limit neighbourhood access to sources of “unhealthy” food. These restrictions have historically been based on concerns over noise, litter, and neighbourhood aesthetics, but more recently have come to acknowledge the potential adverse effects of these food outlets on diet and health.<sup>5 61</sup> For

example, in 2009, Waltham Forest Borough Council in the UK banned outlets selling hot takeaway food (class A5, similar to the types of food outlet examined here) within 400 m of schools, while using planning laws to limit clustering of hot food takeaways more generally throughout their London borough.<sup>7</sup> The London Borough of Barking and Dagenham has similar restrictions on hot food takeaway outlets.<sup>9</sup>

Although these have been isolated initiatives so far, the principles of altering the geography of food availability to promote healthier choices have been most recently adopted by the *Takeaway Toolkit*, published by the Greater London Authority.<sup>8</sup> This document encourages a more widespread uptake of this intervention where appropriate. However, it also notes that “these policies should be well thought through and evidence based.” As already stated, such policies are predicated on a limited understanding in the UK of the relationship between individuals and their environments. Our findings can therefore contribute to public policy, tentatively suggesting that such initiatives might help to reduce both takeaway consumption and body weight. Such interventions could be more effective if focused on work neighbourhoods, although environmental change in one setting may lead to behaviour change in another. For example, a person may adapt their commuting route to work in order to purchase takeaway food that is no longer available in the work neighbourhood. This represents a key question for future longitudinal studies.

## Methodological considerations and limitations

We used a 1 mile radius circular buffer to represent home and work neighbourhoods. However, neighbourhood definitions are likely to vary from person to person, or between home and work, and are influenced by subjective considerations (such as perceptions of safety, social cohesion, and “sense of place”<sup>43 62</sup>). Our neighbourhood definition was theoretically linked to a distance that could be walked by an adult in 15 minutes,<sup>63</sup> and based on a notion of neighbourhood extent described by participants in a study of UK adults.<sup>43</sup> The limitations of using relatively arbitrary definitions of neighbourhood are also not unique to this study, and have been discussed previously.<sup>39</sup> Although we accounted for food environment context to a degree, takeaway foods can be purchased from other types of food outlets (such as canteens at work, for which we had insufficient information). We did not control for the existence of these types of food outlets.

Our cross sectional study design prevented us from inferring causal associations between the environment, diet, and body mass index. Individuals with a preference for takeaway food consumption and increased body mass index may have simply opted for residential neighbourhoods with better access to takeaway food outlets. However, food consumption and body mass index were systematically associated with exposure at work, with self selection bias in the workplace probably less of a concern than at home.

Temporal mismatch was also inevitable, which arises when data sources from different time points are used in cross sectional research.<sup>59</sup> Because outcomes were measured in the Fenland Study between 2005 and 2013, and exposures were calculated using local council data from 2011, the consumption levels of takeaway food and body mass index values for some participants predated their estimated exposure level. This is a common consideration in research of this type.<sup>21</sup> Moreover, we did not know how long our participants had been exposed to their current environments, both at home and at work. Recent residential moves and employment changes could render

exposure to past foodscapes more important than to contemporaneous ones, thereby distorting our results.

As discussed previously,<sup>39</sup> we acknowledge the potential inaccuracy of using the shortest street network distance to model commuting routes.<sup>64-65</sup> Furthermore, the accuracy of modelled commuting routes could vary by transport mode. Previous research suggests that the length of car journeys could be underestimated by shortest network routes, and the lengths of journeys on foot and by bike could be overestimated.<sup>66</sup> However, increased journey length does not necessarily equate to greater exposure, so it is unclear how such inaccuracies might have biased our results.

The Fenland Study was designed to be representative of the Cambridgeshire region, achieving sample characteristics congruent with the region's demographic characteristics (educated, employed, and white British). However, the sample may be less representative of other regions within the UK. Future research might consider focusing on the effects of food environment exposures on people of low socioeconomic status and unemployed people in particular, who may be more constrained to their residential neighbourhoods.<sup>67</sup> Such focus was not possible here owing to the characteristics of the Fenland Study sample. Future research should also use longitudinal and experimental designs while accounting for residential and perhaps occupational histories.

## Conclusions

This study used an innovative metric of exposure to takeaway food outlets, in multiple environmental domains, to explain patterns of takeaway food consumption and body mass index in a UK sample of working age adults. The study showed an environmental contribution to the consumption of takeaway foods, and especially to body mass index and the odds of being obese in this sample. In doing so, we provide novel UK evidence suggesting that policies designed to improve diets through restricting takeaway food availability may work, and may be most effective if focused around workplaces, where food availability of this type might be most important.

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Contributors: The study analysis was devised by TB and PM. TB was responsible for data collection from local councils, and led on data analysis, in consultation with PM, NGF, SJG, and NJW. TB and PM drafted the manuscript together. All authors read and approved the final manuscript. TB is the guarantor.

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Research, and Wellcome Trust, under the auspices of the UK Clinical Research Collaboration, for the submitted work; no financial relationships with any organisations that might have an interest in the submitted work in the previous three years; no other relationships or activities that could appear to have influenced the submitted work.

Ethical approval: Fenland study volunteers gave written informed consent and the study was approved by the local research ethics committee for Cambridge. All other data analysed were in the public domain.

Data sharing: No additional data available.

Transparency: The lead author (the manuscript's guarantor) affirms that the manuscript is an honest, accurate, and transparent account of the study being reported; that no important aspects of the study have been omitted; and that any discrepancies from the study as planned (and, if relevant, registered) have been explained.

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**What is already known on this topic**

In the UK, expenditure on foods consumed outside of the home has increased 29% in the past decade, accompanied by a proliferation of takeaways and other hot food outlets

Studies examining whether exposure to such food outlets can influence diet and body weight have mostly focused on residential neighbourhoods, with inconsistent findings

Despite the equivocal evidence, policies to promote healthier diets are increasingly based on the notion of reducing neighbourhood exposure to takeaway food outlets

**What this study adds**

We examined environmental exposure to takeaway food outlets, in Cambridgeshire, UK, based on domains at home, at work, and along commuting routes

Overall, access to takeaway food outlets in all three domains combined was positively associated with takeaway food consumption, body weight, and obesity

Policies designed to improve diets and bodyweight by restricting takeaway food access may work, and could be most successful if focused around the workplace

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## Tables

**Table 1 | Characteristics of participants in the Fenland Study sample, Cambridgeshire, UK**

	Men (n=2470)	Women (n=2972)	All (n=5442)
Age	47.2 (7.4)	47.8 (7.1)	47.5 (7.2)
Energy (kJ/day)	8807 (2905)	7608 (2437)	8147 (2725)
Physical activity energy expenditure (kJ/kg per day)	59.9 (23.3)	49.4 (19.0)	54.2 (21.7)
Household income >£40 000 (no (%) of participants)	1389 (56.2)	1374 (46.2)	2763 (50.8)
Age at highest educational qualification >18 years (no (%) of participants)	883 (35.7)	886 (29.8)	1769 (32.5)
Current or ex-smoker (no (%) of participants)	1117 (45.2)	1278 (43.0)	2395 (44.0)
Owens car (no (%) of participants)	2321 (94.0)	2769 (93.2)	5090 (93.5)
Commuting travel mode (modal class)	Car	Car	Car
Anthropometric or dietary outcomes:			
Body mass index	27.1 (4.0)	26.3 (5.2)	26.7 (4.7)
Takeaway food consumption (g/day)	43.0 (33.0)	28.5 (25.9)	35.1 (30.2)
Food environment exposures*:			
Home supermarket availability	2.3 (3.1)	2.0 (2.8)	2.1 (3.0)
Home takeaway availability	9.9 (11.7)	8.9 (11.0)	9.3 (11.3)
Work supermarket availability	3.2 (3.5)	3.2 (3.2)	3.2 (3.4)
Work takeaway availability	13.4 (13.6)	14.1 (12.7)	13.8 (13.1)
Commuting supermarket availability	2.1 (2.4)	1.9 (2.2)	2.0 (2.3)
Commuting takeaway availability	9.6 (10.7)	9.0 (9.7)	9.3 (10.2)
Combined supermarket availability†	7.7 (5.9)	7.1 (5.6)	7.4 (5.7)
Combined takeaway availability†	32.8 (23.0)	32.0 (22.4)	32.4 (22.7)

Data are mean (standard deviation) unless stated otherwise. 4.18 kJ=1 kcal.

\*Based on counts of food outlets across home, work, commuting route, and combined domains.

†Combined=home, work, and commuting route exposures combined.

**Table 2| Odds of being overweight and obese relative to being of normal weight, per quarter of exposure to takeaway food outlets, modelled using multinomial logistic regression analysis in the Fenland Study sample (n=5442), Cambridgeshire, UK**

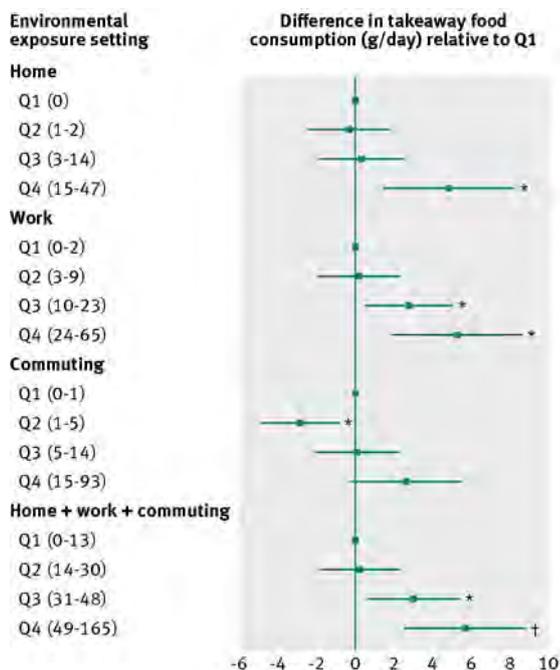
Environmental domain	Odds ratio (95% CI)	
	Odds of being overweight	Odds of being obese
At home		
Quarter 1	Reference	Reference
Quarter 2	1.03 (0.86 to 1.23)	1.06 (0.85 to 1.33)
Quarter 3	0.99 (0.82 to 1.190)	1.22 (0.96 to 1.54)
Quarter 4	1.26 (0.93 to 1.70)	2.15 (1.50 to 3.10)†
At work		
Quarter 1	Reference	Reference
Quarter 2	0.91 (0.76 to 1.09)	1.04 (0.83 to 1.30)
Quarter 3	0.90 (0.74 to 1.10)	1.28 (1.01 to 1.63)*
Quarter 4	0.95 (0.71 to 1.28)	1.47 (1.03 to 2.10)*
Along commuting route		
Quarter 1	Reference	Reference
Quarter 2	0.90 (0.76 to 1.07)	0.93 (0.75 to 1.17)
Quarter 3	0.92 (0.76 to 1.11)	0.97 (0.76 to 1.22)
Quarter 4	1.28 (0.99 to 1.65)	1.38 (1.01 to 1.88)*
All domains combined		
Quarter 1	Reference	Reference
Quarter 2	0.99 (0.83 to 1.19)	1.10 (0.88 to 1.38)
Quarter 3	1.09 (0.88 to 1.35)	1.32 (1.01 to 1.71)*
Quarter 4	1.27 (0.96 to 1.67)	1.80 (1.28 to 2.53)*

Odds ratios (95% confidence intervals) presented for being overweight and obese compared with being of normal weight, per quarter of exposure to takeaway food outlets relative to least exposed quarter (quarter 1). Body weight thresholds based on WHO standards: underweight and normal weight (body mass index <25), overweight ( $\geq 25$ -30), obese ( $\geq 30$ ). All models control for age, sex, household income, and highest educational qualification, smoking status, physical activity energy expenditure, car ownership, and supermarket availability. Commuting and combined models also adjust for journey length.

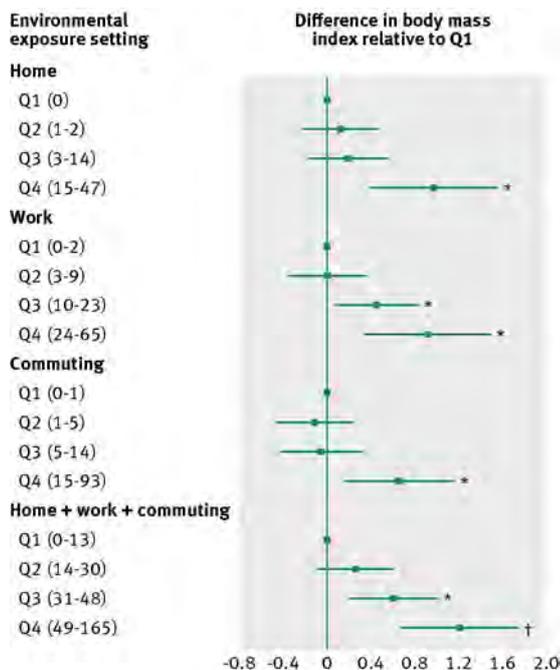
\*P<0.05.

†P<0.001.

## Figures



**Fig 1** Difference in consumption of takeaway food per quarter of exposure to takeaway food outlets, in the Fenland Study sample (n=5594). Differences are relative to the least exposed quarter (Q1). All models control for age, sex, household income, highest educational qualification, daily energy intake, car ownership, and supermarket availability. Commuting and combined models also adjust for journey length. \*P<0.05. †P<0.001. Data points=β coefficients; error bars=95% confidence intervals; Q1=quarter least exposed to takeaway food outlets; Q4=quarter most exposed to takeaway food outlets. Numbers in brackets represent numerical limits (counts of food outlets) for each quarter of exposure



**Fig 2** Difference in body mass index per quarter of exposure to takeaway food outlets, in the Fenland Study sample (n=5442). Differences are relative to the least exposed quarter (Q1). All models control for age, sex, household income, and highest educational qualification, smoking status, physical activity energy expenditure, car ownership, and supermarket availability. Commuting and combined models also adjust for journey length. \*P<0.05. †P<0.001. Data points=β coefficients; error bars=95% confidence intervals; Q1=quarter least exposed to takeaway food outlets; Q4=quarter most exposed to takeaway food outlets. Numbers in brackets represent numerical limits (counts of food outlets) for each quarter of exposure

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## HUDU Planning for Health

# Using the planning system to control hot food takeaways

## A good practice guide



February 2013

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## HUDU Planning for Health

# Using the planning system to control hot food takeaways

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## Introduction

Many local authorities have developed policies and guidance to control hot food takeaways in response to local concerns about a proliferation of takeaways and the effect on diets and eating behaviour and obesity, in particular childhood obesity. This good practice guide reviews the policy approaches taken and recommends a coordinated approach using planning policies together with other local authority initiatives. The London Health Improvement Board, which comprises the Mayor of London, London Councils and the NHS has identified childhood obesity is a key priority. The board are developing a London Obesity Framework that will draw together a broad range of activity into a coherent, strategic approach for tackling obesity across London

This guidance focuses in particular on the role of the planning system. Further advice on other initiatives, such as working with businesses and schools can be found in a [Takeaways Toolkit \(November 2012\)](#) developed by the London Food Board, the Chartered Institute of Environmental Health and the Mayor of London.

## Recommendations

1. A planning policy approach to mitigating the health and other impacts of hot food takeaways should be developed in partnership with other local authority departments, including environmental health, public health and education.
2. Planning policies to restrict new hot food takeaways should be based on clear evidence and included in a development plan document or a supplementary planning document. Local evidence and circumstances will determine the appropriate planning policy response and evidence could include the Joint Strategic Needs Assessment, mapping exercises, research studies, surveys and qualitative information, using public consultation exercises to support policies.
3. A range of policies or criteria should be used together to control and manage the impact of new hot food takeaways, addressing:
  - a concentration and clustering of hot food takeaways in town or local centres
  - hot food takeaways in close proximity to schools

- restaurants providing a takeaway service
  - hot food takeaways in new developments
  - residential amenity, such as noise and odour
4. Planning controls should be part of a coordinated approach to tackle unhealthy diets and obesity, including
- Working with local takeaway businesses and the food industry to make food healthier
  - Working with schools to promote a healthier diet and reduce opportunities to purchase junk food, such as 'stay on site' policies.
  - Improving access to healthy food through the planning system and through initiatives such as Capital Growth by creating spaces for community food growing.
  - Other regulatory controls including enforcement of environmental health and waste regulations and use of street trading policies.
  - Promoting healthy eating and physical activity, including the 'Change4Life' initiative which includes advice on cooking and meals and on active lifestyles, and public health advice on nutrition and diet.

## What is the problem?

Some hot food takeaways offer 'energy-dense' or 'fast food' with high levels of fat, sugar and salt which are linked to obesity and related health conditions including cardiovascular disease, type 2 diabetes, stroke and some cancers. Of particular concern is the effect of fast food consumption on children's diets and eating behaviour as significant health problems related to obesity start to develop at primary school age and behaviour established in early life has been shown to track into adulthood<sup>1</sup>.

Obesity is one of the biggest health challenges facing the UK. Just over a quarter (26%) of adults are obese and 3 in 10 children aged 2 to 15 are either overweight or obese<sup>2</sup>. In 2007, the Government-commissioned Foresight report 'Tackling Obesity: Future Choices'<sup>3</sup> predicted that if no action was taken, 60% of men, 50% of women and 25% of children would be obese by 2050. The report also estimated the direct costs to the NHS of treating obesity-related illnesses to be £4.2bn per year with the wider cost to the UK economy of £15.8 billion per year.

London experiences a significant variation in obesity levels. In 2010/11 obesity prevalence varied from 6.4% in Richmond and Twickenham to 14.6% in City & Hackney for Reception children and from 10.7% in Richmond and Twickenham to 26.4% in Southwark for Year 6 children.

Food availability and accessibility are both key features of an 'obesogenic' environment where the widespread availability of fast food and an environment that promotes sedentary behaviour is of concern.

### **Proliferation of takeaways**

Many local authorities across the country have observed an increase in the number and density of hot food takeaways. For example, St Helens have identified a proliferation of hot food takeaways, especially in proximity to schools as a key local issue. The Borough is 'saturated' with 161 hot food takeaways with 20,000 obese residents costing the local health service an estimated £3.6 million per year<sup>4</sup>. In Tower Hamlets, a study found that there were 42 junk food outlets per school and that 97% residents live within ten minutes of a fast-food outlet<sup>5</sup>.

It is considered that a proliferation of takeaways could tempt children into consuming greater quantities of unhealthy food which would undermine initiatives to promote a healthy diet, particularly in schools. In 2008, the Children's Food Trust (then called the School Food Trust) produced a 'temptation town' measure of the ratio of 'junk food' outlets (including fast food outlets and confectionery shops) to secondary schools<sup>6</sup>. Temptation to eat fast food is only partly influenced by the availability and accessibility of fast food outlets, but also by other factors which influence eating behaviour, such as advertising, marketing, economics, and peer group pressure. Nevertheless, some takeaways located near schools may target school children by selling foods within their price range and offer special deals<sup>7</sup>.

A study published in 2008 found that secondary school pupils got more food from 'fringe' shops (including takeaways and convenience stores) than from the school canteen and that this food was often high in fat or sugar<sup>8</sup>. Whilst schools might have a stay-on-site policy during lunch hours, research has indicated that the most popular time for purchasing food from shops is after school<sup>9</sup>. This includes older primary school children who might not be accompanied by an adult to and from school. Many local authorities have come to the conclusion that takeaways within walking distance of schools are contributing to rising levels of childhood obesity.

### **Links between obesity and deprivation**

There is a strong relationship between socioeconomic deprivation (as measured by the 2010 Index of Multiple Deprivation score) and obesity prevalence in children. Obesity prevalence among Year 6 children attending schools in the least deprived decile was 13.7% compared with 24.3% among those attending school in the most deprived decile. There are a number of other socio-demographic factors that are linked with obesity prevalence, most notably ethnicity.

The National Obesity Observatory (NOO) found a strong association between deprivation and the density of fast food outlets with more deprived areas having more fast food outlets per 100,000 population<sup>10</sup>. Also a separate review of 13 studies found a positive association between deprivation and the availability (proximity and density) of fast food outlets<sup>11</sup>.

Conversely, the availability of healthy food, and in particular fresh produce, is often worse in deprived areas. This has led some to propose that the creation of so-called 'food deserts' (areas where there is poor access to healthy and fresh foods) in deprived areas may contribute to obesity<sup>12</sup>. The Food Standards Agency have found that low income groups are more likely to consume 'energy-dense' foods than higher income groups<sup>13</sup>.

Whilst there is a link between obesity and deprivation and between the density of fast food outlets and deprivation it is difficult to show a direct relationship between fast food and obesity. However, the Foresight report notes that deprived areas tend to have a higher concentration of fast food outlets and levels of obesity tend to be higher in deprived areas than in wealthier areas<sup>14</sup>.

### **Links between obesity and fast food takeaways**

There are a number of American studies that have found a causal link between over-concentration of and proximity to fast food outlets and obesity<sup>15</sup>. They point to an association between obesity levels and the density of fast food outlets<sup>16</sup>.

In Leeds, an observational study identified a positive relationship between the density of fast food outlets per area and the obesity status of children<sup>17</sup>.

National consumer surveys in the UK suggest that the accessibility of fast-food outlets (including proximity and opening hours) is a factor that influences use<sup>18</sup>. American researchers found that students with fast food restaurants within a half a mile of their

schools consumed fewer servings of fruits and vegetables and were more likely to be overweight or obese than students whose schools were not near fast-food restaurants<sup>19</sup>. Other US researchers have found that fast food restaurants within 160 metres of a school (0.1 miles) is associated with a 5 per cent increase in obesity<sup>20</sup>. However, another study using a 'buffer zone' of 800 metres (but with no analysis at a 400 or 200 metre level) found no correlation between the proximity of fast-food takeaways to schools and childhood obesity<sup>21</sup>.

The distance between fast food outlets and schools will vary from place to place depending on the type of area – rural, suburban or inner city - travel routes and the density of schools and fast food outlets. Children may visit takeaways on route to and from school. In London children can take a free bus to reach the cheapest takeaway.

In general, there is more evidence for links between obesity and hot food takeaways than for there being no link. However, it may be difficult to demonstrate a direct relationship, particularly the relationship between the proximity of takeaways to schools and childhood obesity. Nevertheless, the density of hot food takeaways, particularly in a deprived area, is a factor which influences eating habits and so in turn levels of obesity.

Perhaps as important as quantitative data is qualitative evidence into people's perceptions of their built environment and how it affects their behaviour. Responses to public consultations on planning policy documents give a useful insight into local concerns and perceptions. A number of consultations have highlighted that a proliferation of takeaways is a key local issue which requires a policy response.

## National policy and advice

There have been several documents which have reviewed the evidence on obesity and provided guidance on the range of policy instruments and actions needed to tackle obesity.

*The Foresight report (2007)*<sup>22</sup> argued that obesity should be tackled by a multi-faceted way with interventions addressing the many causes of obesity, supporting communities to eat healthily and become more active. Foresight and other analysis emphasised the role of the built environment in influencing decisions on physical activity and a healthy diet.

A number of studies are cited by Foresight<sup>23</sup> who concluded that increased availability of and access to and reliance on 'food on the go' (including, but not restricted to, fast food) is an important consideration for planners.

*The Marmot Review (2010)*<sup>24</sup> highlighted a social gradient in health which is related to deprivation. Health inequalities are determined by social inequalities, including environmental inequalities. Those living in the most deprived neighbourhood are more exposed to environmental conditions, which negatively affect health. In response, actions are needed across the social gradient and across the determinants of health. This includes actions to improve the food environment in local areas and fully integrate the planning, transport, housing, environmental and health systems to address the social determinants of health in each locality.

A report on the implications for spatial planning arising from the Marmot Review<sup>25</sup> noted that deprived areas could particularly benefit from policies which aim to improve availability of healthier food options and better access to shopping facilities, coupled with planning restrictions to control the density of fast food outlets.

Guidance in May 2011 from the *National Institute for Health and Clinical Excellence (NICE)* on the prevention of cardiovascular disease and Type 2 diabetes<sup>26</sup> recognises that planning mechanisms can help promote healthy diets by controlling fast-food outlets and improving access to food retailing. It recommends that local planning authorities regulate the number of takeaways and other food retail outlets in specific areas (for example, within walking distance of schools) and regulate the opening hours of outlets, particularly those near schools that specialise in foods high in fat, salt or sugar. Such controls should be complimented by initiatives to improve the nutritional quality of food available in existing takeaways and other food outlets.

In November 2010, the Coalition Government published its *Public Health White Paper*<sup>27</sup> setting out a range of reforms to the responsibilities, powers and resources for addressing public health. It takes forward the focus on tackling health inequalities as highlighted by the Marmot Review and the role of local government to create healthy places by bringing together a wider range of services, including planning. The White Paper recognises the potential for local planning authorities to influence access to healthy food and manage a concentration of fast food outlets.

The Government's *'A Call to Action on Obesity in England (Oct 2011)'*<sup>28</sup> places an emphasis on empowering people and communities to take action where behaviour is influenced by a range of factors, including the neighbourhood that people live in. Tackling obesity requires a comprehensive and integrated range of interventions. It states that there is clear evidence that the built and physical environments are important factors in influencing people's physical activity, access to and consumption of healthy food, and social interaction. It acknowledges the potential of the planning system to create a healthier built environment and notes that a number of local areas have taken steps to limit the growth of fast food takeaways, for example by developing supplementary planning documents. Allotments and food growing projects can provide some opportunities for people to be more active and eat more healthily.

The *National Planning Policy Framework (March 2012)*<sup>29</sup> identifies that the planning system can play an important role in creating healthy, inclusive communities (paragraph 69). In drawing up local plans, local planning authorities should pursue policies to support the vitality and viability of town centres (paragraph 23) and deliver social, recreational and cultural facilities and services the community needs (paragraph 70). Planning policies and decisions should take account of and support local strategies to improve health and wellbeing for all (paragraph 17). When preparing local plans, local planning authorities should work with public health officers and health organisations to understand and take account of the health status and needs of the local population and the barriers to improving health and well-being (paragraph 171).

The *Public Health Outcomes Framework (Jan 2012)*<sup>30</sup> offers a broad range of opportunities to improve and protect health across the life course and to reduce inequalities in health by tackling determinants of lifestyle diseases. Many of the proposed indicators are relevant to fast food takeaways, including excess weight in adults, recorded diabetes and mortality from all cardiovascular diseases.

## London policy and guidance

The *Mayor of London's Health Inequalities Strategy (April 2010)*<sup>31</sup> recognises that London is facing an obesity epidemic with obesity levels highest among those in 'routine and manual occupations' often living in those parts of London with the poorest health and deprivation indicators. It notes that access to affordable fresh food varies across London and tends to be lower in areas of high deprivation where there is a proliferation of fast food shops and restaurants. The strategy seeks to help Londoners adopt healthier behaviours, to influence the food industry to reduce unhealthy food content and to create healthy places where there is access to affordable fresh food.

*A Tale of Two Obesities (September 2010)*<sup>32</sup> recommends 11 broad actions which could help London and New York reduce childhood obesity. For land use and planning it recommends using land use and other regulatory controls to limit access to fast food and increase the availability of healthy, affordable food, and incorporate active design principles into strategies and neighbourhood planning.

The *London Plan (July 2011)*<sup>33</sup> seeks to address the main health issues affecting the capital, including obesity, "by seeking to ensure that developments are designed, constructed and managed in ways that improve health and reduce health inequalities (para 3.10)". The plan aims to increase access to healthy foods which are complemented by other measures, such as local policies to address concerns over the development of fast food outlets close to schools.

The *London Health Improvement Board* is a partnership between the Mayor of London, London Councils and the NHS, to improve the health of all Londoners. It has identified childhood obesity as one of four priorities and is developing a London Obesity Framework that will draw together a broad range of activity into a coherent, strategic approach. A key element of this work is supporting local authorities and their partners to promote a food and retail environment in London that supports children and their families to make healthy food choices. *Tackling Childhood Obesity in London: The case for action (2011)*<sup>34</sup> sets out why coordinated action is needed to tackle obesity, given the complexity of the problem.

## The role of the planning system

A concentration of hot food takeaways has long been an area of concern for communities in terms of the impact on the retail character and economic health of town centres and the adverse impacts on the amenity of residents associated with noise, fumes, parking, litter and anti-social behaviour. In recent years, this has extended to health issues, concerning poor diet and obesity.

Traditionally land use planning has focused on the regulation and control of land and development. The concept of 'spatial planning' provides greater scope to integrate policies and programmes to influence the nature of places and how they function.

There is a strong relationship between spatial planning and the wider determinants of health<sup>35 36</sup>. The planning system can shape the built environment and influence human behaviour and lifestyles.

In response to obesity, planning can help to:

- Improve healthy eating choices and opportunities for urban growing.
- Promote physical activity by encouraging active travel and improving access to open spaces and sports and recreation facilities.

The planning system defines and manages the role and function of town centres and other centres and seeks to maintain their economic vitality and viability. An overconcentration of non-retail uses can harm the economic health of centres.

The Town and Country Planning (Use Classes) Order 1987 (as amended) defines broad classes of use for buildings or other land. Hot food takeaways are classified as A5 use, while restaurants and cafés for the consumption of food and drink within the premises are classified as A3 use.

Planning permission is not required when both the present and proposed uses fall within the same class, or in certain situations specified in the Order where a change of class is permitted. For example, an A5 hot food takeaway can change to an A3 restaurant without the need for planning permission. However a shop (Class A1) or a restaurant (Class A3) cannot change to an A5 hot food takeaway without planning permission.

National planning policy advocates the use of planning conditions to resolve issues relating to the impact of the development on traffic and the amenity of neighbouring residents, such as hours of operation. Therefore, conditions could be attached to planning permissions for new hot food takeaways to control the hours of operation and odour and noise.

There are other planning tools which can be used to extend or restrict 'permitted development rights'. A Local Development Order could identify an area within which changes of use could occur without planning permission. Conversely, an Article 4 Direction can restrict permitted development rights where there is a particular need to do so. However, the use of Article 4 directions to remove national permitted development rights should be limited to situations where this is necessary to protect local amenity or the wellbeing of the area<sup>37</sup>.

The Localism Act (2011)<sup>38</sup> introduces new rights and powers to allow local communities to shape new development by preparing neighbourhood plans and by permitting certain types of development through neighbourhood development orders. Article 4 Directions remain a key neighbourhood planning tool and, in theory, could be used to restrict changes within use classes<sup>39</sup>. However, Article 4 Directions require both detailed evidence before being applied and careful monitoring afterwards, and can lead to compensation being payable.

The Localism Act has amended proposals for the Community Infrastructure Levy to allow for a 'meaningful' proportion<sup>40</sup> of funds to be passed onto neighbourhoods and

to allow for funds to be used for the future maintenance costs of providing infrastructure. Neighbourhoods will be able to spend the funds on the infrastructure that they want. Therefore, the Community Infrastructure Levy could be used for initiatives to tackle childhood obesity such as providing local open space provision, playgrounds and cycle paths where the funding supports the development of the area<sup>41</sup>.

A recent High Court case (the 'Cable Street' case) ruled that healthy eating and the proximity of a proposed hot food takeaway to a school is capable of being a material planning consideration<sup>42</sup>. This reinforces the role of planning to reflect health and wellbeing strategies and take into account healthy eating policies and programmes.

The planning system has a role to play in promoting healthy eating and controlling fast food outlets by restricting the number of new A5 hot food takeaways in an area created either through new development or through the change of use of existing premises. However, the role of the planning system is limited.

- All outlets which sell hot food for consumption off the premises are classified as Class A5. The Use Classes Order does not define what type of food can be sold.
- There is no definition of an unhealthy hot-food takeaway. Not all Class A5 uses are unhealthy. The salt and fat content of takeaway food varies considerably. A 'healthy' A5 hot takeaway could be replaced by an 'unhealthy' hot food takeaway without the need for planning permission. Of particular concern is fried fast food which, depending on the frying oil used, can contain high levels of trans fats which increase the risk of coronary heart disease.
- The planning system cannot deal with existing takeaways, other than to take enforcement action on unauthorised uses.
- 'Fast food' outlets are not defined and a wide range of outlets sell 'energy-dense' food, i.e. bakers, newsagents, grocers and supermarkets. Other types of outlets may cause problems, i.e. 'burger vans'.
- Many restaurants provide a take-away service, but are classified in a different use class (Class A3).
- Many hot food takeaways operate a home delivery service rather than rely solely on passing trade.

## Developing a planning policy response

Many local authorities have developed policies and guidance to control hot food takeaways. Some local authorities have chosen to develop specific supplementary planning documents (SPDs) to provide guidance to support existing or emerging development plan policies. Although an SPD does not have the same status as the development plan it is still an important material consideration in the determination of planning applications.

In allowing a planning appeal in the London Borough of Tower Hamlets the inspector found that the Council lacked specific local policies to restrict hot food takeaways and evidence to demonstrate an overconcentration of takeaways and the link between proximity to a school and childhood obesity<sup>43</sup>. In response as part of its Healthy Borough programme it produced a report 'Tackling the Takeaways'<sup>44</sup> which provides the evidence to support its policy approach towards hot food takeaways in its Managing Development DPD<sup>45</sup>.

The London Borough of Waltham Forest worked closely with London Metropolitan University and the research on school 'fringe' food shops and developed a supplementary planning document in response to widespread public concerns about the rise in fast food outlets in the Borough.

A food outlet mapping exercise in the London Borough of Newham<sup>46</sup> drew on existing evidence in terms of obesity and the links with consumption of energy-dense food. It identified a concentration of hot food takeaways and relatively poor availability of healthy food and recommended restricting new hot food takeaways within a 400m 'exclusion zone' around the boundary of existing or proposed secondary schools to help to influence young people's access to such food. The report provided the evidence to support Policy SP2 on healthy neighbourhoods in the Borough's Core Strategy.

Mapping exercises, research studies and surveys can help build a case for taking action to address the impact of fast food takeaways. Information from the Joint Strategic Needs Assessment can provide evidence on obesity, deprivation, diet and lifestyles.

Local evidence and circumstances will determine the appropriate planning policy response. This evidence can also be qualitative, using public consultation exercises to support policies to control hot food takeaways.

## **Monitoring and effectiveness**

Local authorities are committed to reviewing the effectiveness of their planning policies through an Annual Monitoring Report. St Helens will review its hot food takeaway supplementary planning document against a set of indicators and targets in its Annual Monitoring Report and in particular will monitor the effectiveness and extent of its exclusion zone.

Waltham Forest's Annual Monitoring Report 2011/12 (December 2012) includes an indicator on the number of hot food takeaways in the Borough and sets a target of no increase in the number and % of hot food takeaways. It notes that since the adoption of its Hot Food Takeaway Supplementary Planning Document in March 2009 25 planning applications for hot-food-takeaways were refused and 6 were allowed under special circumstances. There was a decrease of 2 takeaway premises between 2010/11 and 2011/12 on the Waltham Forest Food Premises Register. A fall in childhood obesity rates has also been reported and the success in implementing the SPD is seen as a contributory factor.

Barking and Dagenham report that only one new takeaway has been permitted in the Borough (on appeal) since 2009 and eight hot food takeaway applications have been refused.

Sandwell Council has produced a data sheet to monitor its Supplementary Planning Document on hot food takeaways. It includes data on the concentration of A5 uses in each centre which will be updated at regular intervals to ensure that the guidance remains relevant.

## A comprehensive policy approach

Tackling the issues of fast food takeaways and obesity requires a co-ordinated response across a much wider set of policy and regulatory instruments than planning. Nevertheless, the planning system can play a significant role, and a range of policies or criteria can be used together to control and manage the impact of new hot food takeaways, addressing:

- a concentration and clustering of hot food takeaways in town and local centres
- hot food takeaways in close proximity to schools
- restaurants providing a takeaway service
- hot food takeaways in new developments
- residential amenity

### **A concentration and clustering of hot food takeaways**

Most local planning authorities have policies which seek to control a concentration and clustering on non-A1 (shop) uses within shopping centres in order to protect the vitality and viability of centres, such as restaurants, betting shops and hot food takeaways. An acceptable proportion of non-A1 uses can vary depending on the type of the centre and its place in the shopping centre hierarchy. A concentration and clustering of uses can be measured in terms of an entire centre or within a specific retail frontage.

This established approach to protect the economic health of shopping areas can also help prevent a proliferation of Class A5 hot food takeaways. However, a finer grain approach is required with a specific policy setting out thresholds whereby further hot food takeaway uses would be resisted.

For example, St Helens Council<sup>47</sup> and the London Boroughs of Waltham Forest<sup>48</sup> and Barking and Dagenham<sup>49</sup> restrict the number of A5 uses to 5% of the total number of units within a centre or frontage. They also restrict the clustering and distribution of A5 units within a centre so that no more than two adjacent A5 units are allowed and at least two non-A5 uses are located between an A5 use. Furthermore, Waltham Forest limits no more than one A5 unit within 400m of an existing A5 in areas outside designated frontages and outside designated centres (called tertiary zones).

## Hot food takeaways in close proximity to schools

A proliferation of hot food takeaways within walking distance of locations where children and young people congregate, particularly schools is seen by many local authorities as a contributing factor to rising levels of childhood obesity.

The London Boroughs of Barking and Dagenham and Waltham Forest apply an 'exclusion zone' policy to restrict new A5 uses within 400m of the boundary of a primary school and secondary school. Waltham Forest consider that 400m is equivalent to a 10 minute walk when taking into account physical barriers, rather than as the 'crow flies'.

Similarly, the London Borough of Greenwich's draft Core Strategy restricts hot food takeaways within 400m of the boundary of a primary or secondary school. The 400m distance is considered sufficient to deter school children from walking to the takeaways during their lunch period or after school. It considers that by limiting the unhealthy food options available, there is an opportunity to improve the health of the Borough's children<sup>50</sup>.

The London Borough of Newham's Core Strategy seeks to address the cumulative impact of hot food takeaways by excluding new premises within 400 metres of a secondary school<sup>51</sup>. Proximity to primary schools is not addressed as secondary schools pupils are considered to have greater mobility and independence compared to primary school pupils.

In a recent planning appeal in Newham the Inspector dismissed an appeal against refusal for a change of use from A1 to A5 as the proposal would add to a local clustering of A5 uses contrary to policy. Furthermore, the proposed A5 use would be located within one of the Council's preferred 'exclusion' zones within 400m of a secondary school and as such would conflict with the Council's policy to promote healthy lifestyles<sup>52</sup>.

In allowing a planning appeal in Barking and Dagenham the inspector considered that 400 metres would equate to a 5 minute walk as the crow flies and that taking into account site specific factors the actual journey time from the nearest school would take longer than 5 minutes. As a result the inspector considered it unlikely that the proposed takeaway would therefore attract custom from pupils of the school<sup>53</sup>. This is the first new takeaway permitted in the Borough since 2009.

Therefore, although the 400m distance is a useful guideline, site specific factors, such as physical barriers to pedestrian movement and the number and location of other takeaways along the school route should be taken into account.

The London Borough of Waltham Forest also expands its zone to cover youth centres and parks where children congregate. However, Barking and Dagenham did not consider this necessary as the 400m exclusion zone around schools was extensive and covers many of these areas. St Helens have chosen to include sixth form colleges as well as schools.

Eating fast food outside of school may also undermine school healthy eating initiatives. Whilst schools may have a stay-on-site policy during lunch hours, there is the temptation to buy fast food before or after school.

In a planning appeal decision in Rotherham<sup>54</sup>, the Inspector noted that a proposed KFC restaurant/takeaway drive through would be located approximately 40 metres from a primary school which holds a Healthy School certificate and provides a “nutritionally balanced breakfast and lunch and teaches its pupils the importance of a healthy lifestyle”.

The Inspector noted that the council had no policy to restrict hot food takeaways near schools or youth facilities, although she did accept that the health and wellbeing of residents was a material consideration. She noted that as a primary school, children were not usually permitted to leave the school at lunchtime, and that “given the age of the children, it is unlikely that they would travel to and from school unaccompanied by an adult.” Therefore, she concluded that “I do not accept that the presence of a KFC restaurant/drive through would jeopardise the local healthy-eating initiatives.”

A planning appeal in Barking and Dagenham<sup>55</sup> for the change of use to a hot food takeaway was dismissed as the proposal would harm the vitality and viability of the district centre. The property was located within 400m of a school with ‘Healthy School’ status and in line with the Council’s SPD, the Inspector considered that health was a key issue. He considered that a condition requiring the counter service to be closed between 15.00 and 16.30 each afternoon on schooldays would have prevented over-the-counter sales to parents and children immediately after school and as such would have ‘neutralised’ the effect on health and wellbeing. However, restricting hours of operation may harm the vitality and viability of a centre.

### **Restaurants providing a takeaway service**

Many restaurants and cafes provide a takeaway service. To be classified as a Class A3 restaurant the dominant use of the premises should be to sell food for consumption on the premises, with the takeaway service remaining ancillary. Some local authorities are concerned with the issue of ‘A5 by the back door’ whereby permission is granted for a A3 use, but the premises operates predominately as an A5 use. Often, the proposed layouts provide a clear guide to the dominant use of the premises, in particular the number of tables or chairs to be provided for customer use.

Policies to control concentrations of A3 restaurants could limit the availability of takeaway services in addition to those provided by A5 hot food takeaways.

### **Hot food takeaways in new developments**

Although the policy focus has been on restricting new hot food takeaways created through changes of use, the planning system can limit or resist new hot food takeaways proposed in new developments through the use of area based policies and planning conditions. For example, Barking and Dagenham seeks to restrict hot food takeaways in the new town centres within development at Barking Riverside, which is the Borough’s largest housing site.

## Residential amenity

Historically, policies have sought to control the impact of hot food takeaways on residential amenity (from increased noise, odour, traffic, litter and anti-social behaviour). In particular, where takeaways are concentrated or clustered together they can cause noise and traffic disturbance and fear of crime which in turn can have a negative impact on mental health and wellbeing. Planning conditions can be imposed to control certain impacts, such as odours (by providing adequate extraction systems), litter and hours of operation. Waltham Forest's SPD on hot food takeaways is based on a number of criteria, including these amenity concerns.

## A strategic response

Many existing policy documents on hot food takeaways have been developed as a result of coordinated concern and action to address issues associated with hot food takeaways. Waltham Forest's SPD originated from consultation on the Borough's Sustainable Community Strategy and the need to develop a joined-up approach to tackle the proliferation of fast food outlets. This gained significant political support. A hot food takeaway corporate steering group was established that included representatives from planning alongside enforcement, food standards, education and NHS Waltham Forest.

St Helens' SPD on hot food takeaways is part of a broader strategy to tackle obesity as set out in its Health Inequalities Plan and "sends a clear message" that the Borough intends to address the "serious issues of poor diet and obesity to improve the health of the Borough"<sup>56</sup>.

Barking and Dagenham's SPD is one of a range of measures set out in the Borough's Childhood Obesity Strategy and Action Plan. Tower Hamlets' research report 'Tackling the Takeaways' was produced as part of the Healthy Borough Spatial Planning Project initiative and supported by a steering group including planners, academics and public health officers.

Tackling obesity requires a multi-faceted response. Planning policies to limit the concentration and location of new takeaways should be seen as part of a strategic response to promote healthy eating. Many areas are already 'saturated' with takeaways and wider measures can help address the impacts of existing hot food takeaways and other fast food outlets and promote healthy eating.

A joined-up strategic response could include:

Working with takeaway businesses to provide healthy choices, adopt nutrient labelling and to reduce the sugar, salt and fat content of the foods that they sell. This requires a multi-department approach involving nutrition professionals as well as environmental health or trading standards officers. Training and award schemes have proved popular.

Working with schools to improve the eating environment, quality of school food and the ease of purchasing - see Children's Food Trust (formerly School Food Trust)

standards and advice and the Food for Life Partnership. A 'stay on site' policy can help prevent children from accessing unhealthy food at lunch time.

Improving access to healthy food through initiatives such as Capital Growth (creating spaces for community food growing) and 'Buywell' projects with food retailers. The planning system can support these initiatives by ensuring a range of shops in town and local centres and protecting and promoting markets, allotments and community food growing spaces. Some local authorities have sought to promote healthier food choices in public buildings, for example leisure centres, workplaces and healthy options in vending machines.

Other regulatory controls and services such as increased enforcement of environmental health and waste regulations and use of street trading policies to restrict the operation of mobile fast food vans, particularly around schools. Where opportunities arise to renew leases on Council owned properties, it could place restrictions on the type of food which can be offered and / or limit the number of A5 units..

Promoting healthy eating and physical activity including 'Change4Life' which includes advice on cooking and meals and active lifestyles and public health advice on nutrition and diet.

Barking and Dagenham's SPD includes a levy on new hot food takeaway outlets where a contribution of £1,000 can be allocated towards initiatives to tackle childhood obesity in the Borough. The Community Infrastructure Levy could be used for neighbourhood initiatives to tackle childhood obesity such as providing local open space provision, playgrounds and cycle paths.

## Conclusions

Government advice and guidance encourages planning authorities to support local strategies to improve health and wellbeing and to maximise the role of the planning system to create a healthier built environment, for example, by controlling a proliferation of hot food takeaways. Addressing a proliferation of takeaways will both help maintain the economic vitality and viability of town and local centres and promote healthy lifestyles.

Obesity is one of the biggest health challenges facing the UK. There are significant variations in obesity levels linked to deprivation where there is an association between deprivation and the density of fast food outlets. However, proving a direct relationship between the density of fast food outlets and obesity is difficult. Nevertheless, the Foresight report and other studies identify an association.

Local authorities consider that the location of hot food takeaways in close proximity to schools could tempt children into consuming a greater amount of unhealthy food which would undermine initiatives to promote a healthier diet, particular in schools. Many local authorities have come to the conclusion that takeaways within walking distance of schools influence eating behaviour and contribute to rising levels of childhood obesity.

The availability of fast food is seen to be part of an obesogenic environment and the planning system has an important role to play to promote healthy eating and physical activity. Healthy eating and the proximity of a proposed hot food takeaway to a school is capable of being a material planning consideration. However, restricting hot food takeaways must be supported by planning policies based on evidence.

To be effective a range of planning policies or criteria should be developed where local evidence and circumstances will determine the appropriate policy response. Evidence can be both quantitative and qualitative, including public consultation exercises to understand how people perceive their built environment and how it influences their behaviour.

The ability of the planning system to address the health impact of fast food is limited in that it can only control new hot food takeaways and cannot deal with the problems of existing takeaways and other fast food outlets. Therefore, planning controls should be seen as part of a strategic response, including initiatives to work with takeaway businesses and with schools, and the combined use of other regulatory controls and public health interventions.

Many planning policies and guidance on hot food takeaways have been developed as a result of coordinated concern and action which has facilitated joint working and raised the profile of planning and its ability to address health issues. Such opportunities may increase as local authorities take on responsibility for public health and health and wellbeing boards and joint health and wellbeing strategies address the wider determinants of health, including those determinants influenced by spatial planning.

HUDU/Feb 2013

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London Health Improvement Board Tackling Childhood Obesity in London: The case for action

London Metropolitan University, Nutritional Policy Unit (July 2008) The School Fringe What Pupils Buy and Eat from Shops Surrounding Secondary Schools

London Metropolitan University, Nutrition Policy Unit (April 2010) The Takeaway Snowball

Mayor of London (November 2012) Takeaways Toolkit

NICE (June 2010) Prevention of cardiovascular disease at population level PH25

NICE (May 2011) Preventing type 2 diabetes – population and community interventions PH35

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The Information Centre for Health and Social Care National Child Measurement Programme: England, statistics on obesity, physical activity and diet  
[http://www.ic.nhs.uk/statistics-and-data-collections/health-and-lifestyles/obesity and health surveys](http://www.ic.nhs.uk/statistics-and-data-collections/health-and-lifestyles/obesity-and-health-surveys) <http://www.ic.nhs.uk/statistics-and-data-collections/health-and-lifestyles-related-surveys/health-survey-for-england>

National Heart Forum (2010) Assessing the options to use the regulatory environment to promote local physical activity and healthy eating. The National Heart Forum has developed an interactive online 'Healthy Places' resource looking at the ways in which the regulatory environment, including planning can promote and support healthy living. It currently focuses on physical activity and healthy eating.  
[www.healthyplaces.org.uk](http://www.healthyplaces.org.uk)

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- <sup>37</sup> Department for Communities and Local Government (March 2012) National Planning Policy Framework.
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- <sup>39</sup> In a House of Commons debate on 24 November 2010 Planning Minister Robert recommended the use of an Article 4 Directions to control betting shops within the A2 Use Class.
- <sup>40</sup> Planning Minister Nick Boles announces new cash incentives (10 January 2013) to indicate that neighbourhoods may receive up to 25% of Community Infrastructure Fund revenues.
- <sup>41</sup> Department for Communities and Local Government (October 2011) Community Infrastructure Levy Detailed proposals and draft regulations for reform consultation
- <sup>42</sup> Regina (Copeland) v London Borough of Tower Hamlets 11 June 2010

<sup>43</sup> 375 Cable Street, London Borough of Tower Hamlets appeal allowed for a change of use from A1 to A5 hot food takeaway (ref: APP/E5900/A/10/2141935)

<sup>44</sup> NHS Tower Hamlets (2011) Tackling the takeaways: A new policy to address fast-food outlets in Tower Hamlets

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<sup>46</sup> London Borough of Newham (July 2010) Food Outlet Mapping

<sup>47</sup> St Helens Council (June 2011) Hot Food Takeaways Supplementary Planning Document

<sup>48</sup> London Borough of Waltham Forest (March 2009) Hot Food Takeaway Supplementary Planning Document and Local Plan Development Management Policies Proposed Submission July 2012 Policy DM24

<sup>49</sup> London Borough of Barking and Dagenham (July 2010) Saturation Point: Addressing the health impacts of hot food takeaways Supplementary Planning Document

<sup>50</sup> London Borough of Greenwich, Draft Core Strategy with Development Management Policies November 2010, Policy TC(d) Hot Food Take-aways

<sup>51</sup> London Borough of Newham adopted Core Strategy (January 2012), Policy SP2.

<sup>52</sup> 77 Plashet Road, London E13 appeal dismissed for change of use from A1 to hot food takeaway (ref: APP/G5750/A/11/2162904)

<sup>53</sup> 122 Fanshawe Avenue, Barking, appeal allowed for a change of use from A2 to A5 takeaway (ref: APP/Z5060/A/11/2167225)

<sup>54</sup> Canklow Hotel, Canklow Road, Rotherham, appeal allowed for a KFC Restaurant/Drive through A3/A5 use (ref: APP/P4415/A/11/2159082).

<sup>55</sup> 233 Heathway, Dagenham, appeal by Domino Pizza Group Limited dismissed for a change of use to hot-food take-away (ref: APP/Z5060/A/10/2136264/NWF)

<sup>56</sup> Cabinet Member for Adult Social Care and Health, Councillor Joe Pearson, Fast Food Exclusion Zone set up, The Independent 29 June 2011.



# PUBLIC HEALTH OUTCOMES FRAMEWORK (PHOF): Telford & Wrekin Update Report, August 2016

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## Introduction

The Public Health Outcomes Framework (PHOF) for England<sup>1</sup>, was first published in January 2012 by Public Health England (PHE). The overarching vision of the PHOF is improving and protecting the nation's health and wellbeing, and improving the health of the poorest fastest. This vision is encompassed in the framework's two high level outcomes:

- **Outcome 1:** Increased healthy life expectancy
- **Outcome 2:** Reduced differences in life expectancy and healthy life expectancy between communities

The framework aims to deliver these outcomes through improvement across 71 public health indicators and a series of sub indicators grouped into five domains.

## Purpose

PHE refresh and update the data the PHOF indicators at quarterly intervals in August, November, February and May. This report provides an updated overview and key headlines for Telford & Wrekin from the most recent PHOF, comprising updates released by PHE in August 2016.

## Key Headlines for Telford & Wrekin (August 2016)

Summary tables of all the PHOF indicators are included in the Appendix 1.

### New or updated indicators showing improvement

- The rate of **emergency hospital admissions for intentional self-harm** has seen a statistically significant decrease from 257.38 for 2013/14 to 206.94 for 2014/15 improving the RAG rating from red to amber.
- The proportion of **adults meeting the recommended '5-a-day' on a 'usual day'** has increased from 46.4% in 2014 to 48.6% in 2015 improving the RAG rating from red to amber.
- The **average number of portions of vegetables consumed daily by adults** is now similar to the England average at 2.2, a slight increase from 2.1 in 2014.
- The **percentage of females aged 16-64 in employment** has increased from 64.8% for 2013/14 to 66.2% for 2014/15, this indicator remains similar to the England average.
- **Smoking prevalence in adults** has fallen from 20.0% in 2014 to 18.2% in 2015, this indicator remains similar to the England average. This is encouraging in terms of the continued downward trend each year since 2012 when the rate was 21.9%.

### New or updated indicators showing deterioration

- The **proportion of users with successful completion of alcohol treatment** fell to 30.6% in 2014, ranking it worse than the England average. However, more recent local data indicates an improvement in 2015.

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<sup>1</sup> <https://www.gov.uk/government/publications/healthy-lives-healthy-people-improving-outcomes-and-supporting-transparency>

- The **percentage of males aged 16-64 in employment** fell from 79.1% in 2013/14 to 76.4% in 2014/15, this indicator remains similar to the England average.
- The **smoking prevalence in adults in routine and manual occupations estimate** increased from 27.3% to 32.0% in 2015, this indicator remains similar to the England average (26.5%).

### **New or updated indicators without previous RAG rating**

- The proportion of **children aged 4-5 classified as overweight or obese** is rated amber for 2014/15 with a figure of 23.5%. There was no previous RAG rating for 2013/14 as the figures were suppressed for disclosure purposes.
- The proportion of **children aged 10-11 classified as overweight or obese** is rated red for 2014/15 with a figure of 33.2%. There was no previous RAG rating for 2013/14 as the figures were suppressed for disclosure purposes.

### **New and updated indicators with no RAG rating**

The following indicators without polarity have seen a statistically significant decline:

- Population vaccination coverage – Flu (aged 65+) fell from 73.06% for 2014/15 to 71.12% for 2015/16 a statistically significant change.
- Population vaccination coverage – Flu (at risk individuals) fell from 55.82% for 2014/15 to 49.07% for 2015/16, a statistically significant change.
- Population vaccination coverage – Flu (2-4 years old) fell from 39.72% for 2014/15 to 30.91% for 2015.16 a statistically significant change.

### **New Indicators and sub-indicators**

There have been a number of new sub-indicators included in the PHOF since the last update in May 2016:

- 1.08i – Percentage of people aged 16-64 in employment (persons, male and female)
- 1.13iii – First time offenders
- 1.15i – Statutory homeless – eligible homeless people not in priority need
- 2.08ii – Percentage of children where there is cause for concern
- 2.10ii – Emergency hospital admissions for intentional self harm (rated amber).
- 2.14 – Smoking prevalence in adults – current smokers (APS) [new source]
- 2.14 – Smoking prevalence in adult in routine and manual occupations – current smokers (APS [new source]
- 2.15iii – successful completion of alcohol treatment (rated red)
- 2.15iv – Deaths from drug misuse
- 2.20iv – Abdominal aortic aneurysm screening – coverage (rated green)
- 3.03xii – population vaccination coverage – HPV vaccination coverage for one dose (females 12-13 years old)
- 3.03xvii – population vaccination coverage – shingles vaccination coverage (70 years old)
- 3.03xviii – population vaccination coverage – Flu (2-4 years old)
- 4.02 – Proportion of five year old children free from dental decay (rated amber).
- 4.09ii – Proportion of adults in the population in contact with secondary mental health services.

## PHOF Summary for Telford & Wrekin, August 2016

### Domain 0 – Overarching Determinants of Health

There are two primary indicators with a total of 12 sub-indicators in this domain with reported data. There were no new sub-indicators for this domain;

No indicators have been updated in the August 2016 release.

The Telford & Wrekin position is significantly worse than the England average for all eight sub-indicators that have been compared.

#### Better than average indicators:

#### Worse than average indicators:

- Healthy life expectancy at birth (male and female)
- Life expectancy at birth (male and female)
- Life expectancy at 65 (male and female)
- Gap in life expectancy at birth between each LA and England (male and female)

### Domain 1 – Wider Determinants of Health

There are 17 primary indicators with a total of 51 sub-indicators with reported data in this domain. There have been five new sub-indicators:

- Percentage of people aged 16-64 in employment (persons, male and female)
- First time offenders
- Statutory homelessness – eligible homeless people not in priority need. This replaces the previous 'Statutory homelessness – homelessness acceptances – not applicable' indicator

Indicator 1.01 has also been renamed 'Children in low income families' from the previous 'children in poverty'.

A total of three sub-indicators have had data updates since the May 2016 release:

- Pupil absence
- 16-18 year olds not in education employment or training
- The rate of complaints about noise

The Telford & Wrekin position is significantly worse than the England average for five sub-indicators and significantly better for nine sub-indicators

#### Better than average indicators:

- School readiness: the percentage of Year 1 pupils achieving the expected level in the phonics screening check (persons/male/female, Free school meals persons/male/female)
- Killed and seriously injured (KSI) casualties on England's roads
- Hospital admissions for violence

- The rate of complaints about noise
- Households in temporary accommodation

**Worse than average indicators:**

- Children in low income families (under 20 and under 16)
- First time entrants to the youth justice system
- 16-18 year olds not in education employment or training
- Fuel poverty

## **Domain 2 – Health Improvement**

There are 22 primary indicators with 56 sub-indicators with reported local data in this domain.

There have been six new indicators and ten amendments to indicator names, titles or sources since the May 2016 update.

- Percentage of children where there is cause for concern
- Emergency hospital admissions for intentional self-harm
- Proportion of the population meeting the recommended '5-a-day' at age 15
- Successful completion of alcohol treatment
- Deaths from drug misuse
- Abdominal Aortic Aneurysm Screening coverage

Indicator 2.14 Smoking prevalence has is a new data source (APS) replacing the previous data.

Indicator 2.06 has been renamed 'Child excess weight in 4-5 and 10—11 year olds' to include the word 'child'

Indicator 2.08i 'Average difficulties score for all looked after children aged 5-16 who have been in care for at least 12 months on 31<sup>st</sup> March' has been renumbered from the previous 2.08 to allow for additional indicator 2.08ii 'percentage of children where there is cause for concern'.

Indicator 2.11i has been renamed 'proportion of the population meeting the recommended '5-a-day' on a 'usual day' (adults)' to include the reference to 'usual day' and 'adults'.

Indicators 2.11ii and 2.11iii (average number of portions of fruit/vegetables eaten (adults)' have been renamed to include the word 'adults'

Indicator 2.20xi 'Newborn blood spot screening – coverage' has been renumbered, previously 2.21iv.

Indicator 2.20xii 'Newborn hearing screening – coverage' has been renumbered, previously 2.21v.

A total of five indicators have been updated since the last release:

- Percentage of physically active adults
- Percentage of physically inactive adults
- Cumulative percent of the eligible population aged 40-74 offered an NHS Health Check
- Cumulative percent of the eligible population aged 40-74 offered an NHS Health Check who received an NHS Health Check

- Cumulative percent of the eligible population aged 40-74 who received an NHS Health Check.

Overall, Telford & Wrekin is significantly better than the England average in 16 of the sub-indicators and significantly worse in 13.

#### **Better than average indicators:**

- Smoking prevalence at age 15 – current smokers
- Smoking prevalence at age 15 – regular smokers
- Cancer screening coverage – breast cancer
- Cancer screening coverage – cervical cancer
- Abdominal aortic aneurysm screening – coverage
- Newborn blood spot screening
- Newborn hearing screening
- Injuries due to falls in people aged 65 and over (persons/male/female, aged 65-79 persons/male/female, aged 80+ persons/male/female)

#### **Worse than average indicators:**

- Breastfeeding – breastfeeding initiation
- Smoking status at time of delivery
- Under 18 conceptions
- Child excess weight - 10-11 year olds
- Hospital admissions caused by unintentional and deliberate injuries in children (aged 0-14 years and aged 0-4 years)
- Average number of portions of fruit consumed daily (adults)
- Excess weight in adults
- Successful completion of alcohol treatment
- Cancer screening coverage – bowel cancer
- Cumulative percentage of the eligible population aged 40-74 offered an NHS Health Check
- Cumulative percentage of the eligible population aged 40-74 offered an NHS Health Check who received an NHS Health Check
- Cumulative percentage of the eligible population aged 40-74 who received an NHS Health Check

### **Domain 3 – Health Protection**

There are six primary indicators with 25 sub-indicators that have reported local data in this domain.

There have been three new indicators since the May 2016 update.

- Population vaccination coverage – HPV vaccination coverage for one dose (females 12-13 years old) –Female
- Population vaccination coverage - Shingles vaccination coverage (70 years old)-Persons
- Population vaccination coverage - Flu (2-4 years old)-Persons

A total of five indicators have been updated since the previous release.

- Chlamydia detection rate (15-24 year olds) (persons, male and female)
- Population vaccination coverage – Flu (aged 65+ and at risk individuals)

The Telford & Wrekin position is significantly better than the England average for 11 of the sub-indicators and significantly worse for one.

**Better than average indicators:**

- Population vaccination coverage – Dtap/IPV/Hib (1 year old and 2 year old)
- Population vaccination coverage – MenC
- Population vaccination coverage – PCV
- Population vaccination coverage – Hib/MenC booster (2 years old and 5 years old)
- Population vaccination coverage - PCV booster
- Population vaccination coverage – MMR for one dose (2 years old and five years old)
- Incidence of TB

**Worse than average indicators:**

- Population vaccination coverage - PPV

**Domain 4 – Healthcare and Premature Mortality**

There are 16 primary indicators with a total of 63 sub-indicators with reported local data in this domain.

There have been two new indicators since the May 2016 updated.

- Proportion of five year old children free from dental decay. Replaces previous indicator 4.02 'Tooth decay in children aged 5'.
- Proportion of adults in the population in contact with secondary mental health services.

Indicator 4.08 'Mortality rate from a range of specified communicable diseases, including influenza' has had the definition updated and been renamed to include reference to 'specific and 'influenza'.

Indicator 4.09i 'excess under 75 mortality rate in adults with serious mental illness' has been renumbered to allow for the inclusion of a new 4.09ii indicator.

A total of five indicators have been updated since the last release.

- Infant mortality
- Preventable sight loss – age related macular degeneration (AMD)
- Preventable sight loss – glaucoma
- Preventable sight loss – diabetic eye disease
- Preventable sight loss – sight loss certifications

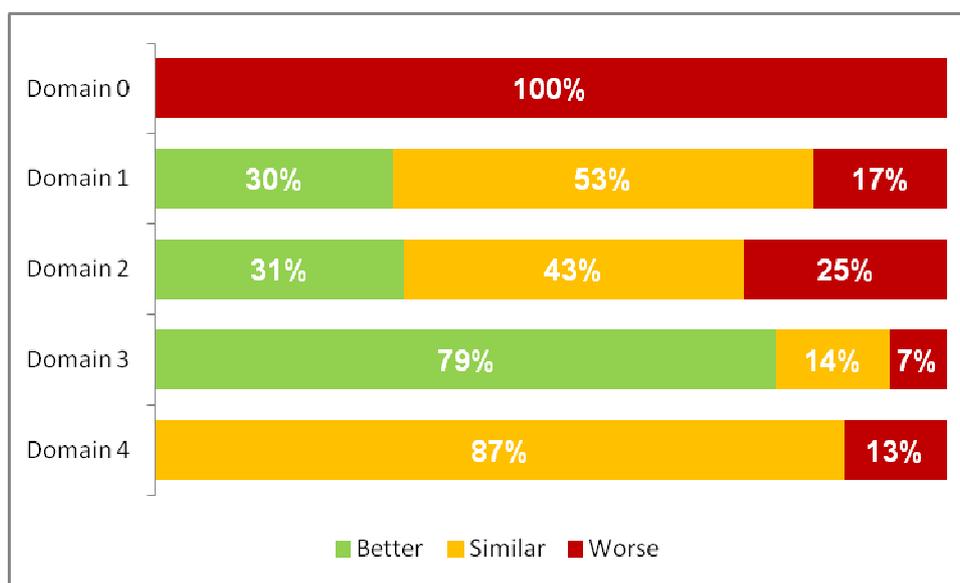
The Telford & Wrekin position is significantly worse than the England average for eight of the sub-indicators. There are no local indicators better than the national average.

**Worse than average indicators:**

- Infant mortality
- Mortality rate from causes considered preventable
- Under 75 mortality rate from cancer (persons and male)
- Under 75 mortality rate from cancer considered preventable (persons and male)
- Proportion of adults in the population in contact with secondary mental health services
- Health related quality of life for older people

## Summary of benchmarked indicators

- **Domain 0: Overarching Determinants of Health** has the greatest proportion of indicators where the Telford & Wrekin position is worse than the England average, with 100% of benchmarked indicators rated red. *(total 8 indicators)*
- **Domain 4: Healthcare and Premature Mortality** is the area where the benchmarked Telford & Wrekin position is closest to the England average. This domain has the highest proportion of indicators that are statistically similar to the England average, with 87% of benchmarked indicators rated amber. *(total 62 indicators)*
- **Domain 3: Health Protection** is the area where Telford & Wrekin has the highest proportion of indicators rated better than the England average, with 79% of benchmarked indicators rated green. *(total 14 indicators)*



# Appendix 1

## Key to RAG rating

Telford & Wrekin position significantly worse than the England average or goal	Telford & Wrekin position similar to the England average or goal	Telford & Wrekin position significantly better than the England average or goal
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The RAG rating in these tables uses the statistical significance as calculated and presented by Public Health England (PHE) in the PHOF release May 2016. Indicators without RAG ratings are those where PHE have not applied statistical comparisons.

Ref	Indicator	Telford and Wrekin	England	Time Period
0.1i	Healthy life expectancy at birth-Male	59.76	63.43	2012 - 14
0.1i	Healthy life expectancy at birth-Female	58.17	64.00	2012 - 14
0.1ii	Life expectancy at birth-Male	78.70	79.55	2012 - 14
0.1ii	Life expectancy at birth-Female	81.80	83.20	2012 - 14
0.1ii	Life expectancy at 65-Male	18.20	18.77	2012 - 14
0.1ii	Life expectancy at 65-Female	20.30	21.19	2012 - 14
0.2iii	Slope index of inequality in life expectancy at birth within English local authorities, based on local deprivation deciles within each area-Male	6.95	-	2012 - 14
0.2iii	Slope index of inequality in life expectancy at birth within English local authorities, based on local deprivation deciles within each area-Female	2.84	-	2012 - 14
0.2iv	Gap in life expectancy at birth between each local authority and England as a whole-Male	-0.85	0.00	2012 - 14
0.2iv	Gap in life expectancy at birth between each local authority and England as a whole-Female	-1.40	0.00	2012 - 14
0.2vi	SII in healthy life expectancy based within local authorities, based on deprivation within Middle Super Output Areas -Male	11.81	-	2009 - 13
0.2vi	SII in healthy life expectancy based within local authorities, based on deprivation within Middle Super Output Areas -Female	12.10	-	2009 - 13
Supporting Information	Deprivation score (IMD 2010)-Persons	23.63	21.69	2010
Supporting information	Deprivation score (IMD 2015)-Persons	24.85	21.78	2015
Supporting information	% population aged <18-Persons	23.02	21.34	2014
Supporting information	% population aged 65+-Persons	16.07	17.56	2014
Supporting information	% population from Black and Minority Ethnic (BME) groups-Persons	7.34	14.58	2011

## Domain 1: Wider Determinants of Health

Ref	Indicator	Telford and Wrekin	England	Time Period
1.01i Renamed	Children in low income families (all dependent children under 20)-Persons	22.00	18.00	2013
1.01ii Renamed	Children in low income families (under 16s)-Persons	23.00	18.60	2013
1.02i	School Readiness: the percentage of children achieving a good level of development at the end of reception-Persons	66.61	66.26	2014/15
1.02i	School Readiness: the percentage of children achieving a good level of development at the end of reception-Male	58.28	58.63	2014/15
1.02i	School Readiness: the percentage of children achieving a good level of development at the end of reception-Female	74.91	74.28	2014/15
1.02i	School Readiness: the percentage of children with free school meal status achieving a good level of development at the end of reception-Persons	52.04	51.20	2014/15
1.02i	School Readiness: the percentage of children with free school meal status achieving a good level of development at the end of reception-Male	39.70	42.62	2014/15
1.02i	School Readiness: the percentage of children with free school meal status achieving a good level of development at the end of reception-Female	64.77	60.33	2014/15
1.02ii	School Readiness: the percentage of Year 1 pupils achieving the expected level in the phonics screening check-Persons	81.53	76.78	2014/15
1.02ii	School Readiness: the percentage of Year 1 pupils achieving the expected level in the phonics screening check-Male	77.67	72.98	2014/15
1.02ii	School Readiness: the percentage of Year 1 pupils achieving the expected level in the phonics screening check-Female	85.89	80.75	2014/15
1.02ii	School Readiness: the percentage of Year 1 pupils with free school meal status achieving the expected level in the phonics screening check-Persons	71.43	64.67	2014/15
1.02ii	School Readiness: the percentage of Year 1 pupils with free school meal status achieving the expected level in the phonics screening check-Male	64.68	59.51	2014/15
1.02ii	School Readiness: the percentage of Year 1 pupils with free school meal status achieving the expected level in the phonics screening check-Female	78.87	70.06	2014/15
1.03 Update	Pupil absence-Persons	4.56	4.62	2014/15
1.04	First time entrants to the youth justice system-Persons	549.45	409.06	2014
1.05 Update	16-18 year olds not in education employment or training-Persons	7.91	4.18	2015
1.06i	Adults with a learning disability who live in stable and appropriate accommodation-Persons	53.75	73.32	2014/15
1.06i	Adults with a learning disability who live in stable and appropriate accommodation-Male	55.32	73.23	2014/15
1.06i	Adults with a learning disability who live in stable and appropriate accommodation-Female	51.52	73.11	2014/15
1.06ii	Percentage of adults in contact with secondary mental health services who live in stable and appropriate accommodation-Persons	65.10	59.70	2014/15
1.06ii	Percentage of adults in contact with secondary mental health services who live in stable and appropriate accommodation-Male	65.80	58.40	2014/15
1.06ii	Percentage of adults in contact with secondary mental health services who live in stable and appropriate accommodation-Female	64.50	61.30	2014/15

Ref	Indicator	Telford and Wrekin	England	Time Period
1.08i	Gap in the employment rate between those with a long-term health condition and the overall employment rate-Persons	12.00	8.60	2014/15
1.08ii	Gap in the employment rate between those with a learning disability and the overall employment rate-Persons	69.40	66.90	2014/15
1.08ii	Gap in the employment rate between those with a learning disability and the overall employment rate-Male	73.40	71.80	2014/15
1.08ii	Gap in the employment rate between those with a learning disability and the overall employment rate-Female	65.60	62.30	2014/15
1.08iii	Gap in the employment rate for those in contact with secondary mental health services and the overall employment rate-Persons	64.10	66.10	2014/15
1.08iii	Gap in the employment rate for those in contact with secondary mental health services and the overall employment rate-Male	69.30	72.60	2014/15
1.08iii	Gap in the employment rate for those in contact with secondary mental health services and the overall employment rate-Female	58.80	59.30	2014/15
1.08iv New	Percentage of people aged 16-64 in employment-Persons	71.40	72.90	2014/15
1.08iv New	Percentage of people aged 16-64 in employment-Male	76.40	78.20	2014/15
1.08iv New	Percentage of people aged 16-64 in employment-Female	66.20	67.60	2014/15
1.09i	Sickness absence - the percentage of employees who had at least one day off in the previous week-Persons	3.20	2.44	2011 - 13
1.09ii	Sickness absence - the percent of working days lost due to sickness absence-Persons	1.72	1.52	2011 - 13
1.10	Killed and seriously injured (KSI) casualties on England's roads-Persons	21.57	39.26	2012 - 14
1.11	Domestic abuse-Persons	17.78	20.42	2014/15
1.12i	Violent crime (including sexual violence) - hospital admissions for violence-Persons	31.27	47.49	2012/13 - 14/15
1.12ii	Violent crime (including sexual violence) - violence offences per 1,000 population-Persons	15.77	13.54	2014/15
1.12ii	Violent crime (including sexual violence) - rate of sexual offences per 1,000 population-Persons	2.24	1.40	2014/15
1.13i	Re-offending levels - percentage of offenders who re-offend-Persons	24.73	26.36	2013
1.13ii	Re-offending levels - average number of re-offences per offender-Persons	0.78	0.82	2013
1.13iii New	First time offenders-Persons	248.66	262.58	2014
1.14i Update	The rate of complaints about noise-Persons	4.47	7.13	2014/15
1.14ii	The percentage of the population exposed to road, rail and air transport noise of 65dB(A) or more, during the daytime-Persons	0.83	5.17	2011
1.14iii	The percentage of the population exposed to road, rail and air transport noise of 55 dB(A) or more during the night-time-Persons	2.02	8.01	2011
1.15i New	Statutory homelessness - Eligible homeless people not in priority need-Persons	-	0.90	2014/15
1.15ii	Statutory homelessness - households in temporary accommodation-Persons	0.91	2.85	2014/15
1.16	Utilisation of outdoor space for exercise/health reasons-Persons	17.29	17.91	Mar 2014 - Feb 2015
1.17	Fuel poverty-Persons	10.82	10.39	2013

Ref	Indicator	Telford and Wrekin	England	Time Period
1.18i	Social Isolation: percentage of adult social care users who have as much social contact as they would like-Persons	43.20	44.80	2014/15
1.18ii	Social Isolation: percentage of adult carers who have as much social contact as they would like-Persons	34.50	38.50	2014/15

## Domain 2: Health Improvement

Ref	Indicator	Telford and Wrekin	England	Time Period
2.01	Low birth weight of term babies-Persons	2.47	2.86	2014
2.02i	Breastfeeding - breastfeeding initiation-Female	67.48	74.33	2014/15
2.02ii	Breastfeeding - breastfeeding prevalence at 6-8 weeks after birth-Persons	41.06	43.82	2014/15
2.03	Smoking status at time of delivery-Female	21.18	11.38	2014/15
2.04	Under 18 conceptions-Female	32.61	22.80	2014
2.04	Under 18 conceptions: conceptions in those aged under 16-Female	5.90	4.38	2014
2.06i Renamed	Child excess weight in 4-5 and 10-11 year olds - 4-5 year olds-Persons	23.50	21.89	2014/15
2.06ii Renamed	Child excess weight in 4-5 and 10-11 year olds - 10-11 year olds-Persons	36.21	33.24	2014/15
2.07i	Hospital admissions caused by unintentional and deliberate injuries in children (aged 0-14 years)-Persons	142.95	109.59	2014/15
2.07i	Hospital admissions caused by unintentional and deliberate injuries in children (aged 0-4 years)-Persons	175.75	137.47	2014/15
2.07ii	Hospital admissions caused by unintentional and deliberate injuries in young people (aged 15-24 years)-Persons	118.00	131.71	2014/15
2.08i Renumbered	Average difficulties score for all looked after children aged 5-16 who have been in care for at least 12 months on 31st March -Persons	13.90	13.90	2014/15
2.08ii New	Percentage of children where there is a cause for concern-Persons	34.00	37.00	2014/15
2.09i	Smoking prevalence at age 15 - current smokers (WAY survey)-Persons	5.98	8.20	2014/15
2.09ii	Smoking prevalence at age 15 - regular smokers (WAY survey)-Persons	4.06	5.45	2014/15
2.09iii	Smoking prevalence at age 15 - occasional smokers (WAY survey)-Persons	1.92	2.74	2014/15
2.10ii New	Emergency Hospital Admissions for Intentional Self-Harm-Persons	206.94	191.43	2014/15
2.11i Renamed	Proportion of the population meeting the recommended '5-a-day' on a 'usual day' (adults)-Persons	48.60	52.30	2015
2.11ii Renamed	Average number of portions of fruit consumed daily (adults)-Persons	2.20	2.51	2015
2.11iii Renamed	Average number of portions of vegetables consumed daily (adults)-Persons	2.17	2.27	2015
2.11iv New	Proportion of the population meeting the recommended "5-a-day" at age 15 -Persons	49.70	52.40	2014/15
2.12	Excess weight in Adults-Persons	71.92	64.59	2012 - 14

Ref	Indicator	Telford and Wrekin	England	Time Period
2.13i Update	Percentage of physically active and inactive adults - active adults-Persons	53.80	57.05	2015
2.13ii Update	Percentage of physically active and inactive adults - inactive adults-Persons	28.47	28.65	2015
2.14 New source	Smoking Prevalence in adults - current smokers (APS)-Persons	18.21	16.93	2015
2.14 New source	Smoking Prevalence in adult in routine and manual occupations - current smokers (APS)-Persons	32.01	26.51	2015
2.15i	Successful completion of drug treatment - opiate users-Persons	8.17	7.38	2014
2.15ii	Successful completion of drug treatment - non-opiate users-Persons	40.43	39.19	2014
2.15iii New	Successful completion of alcohol treatment-Persons	30.60	38.75	2014
2.15iv New	Deaths from drug misuse-Persons	-	3.40	2012 - 14
2.16	People entering prison with substance dependence issues who are previously not known to community treatment-Persons	42.20	46.87	2012/13
2.17	Recorded diabetes-Persons	6.62	6.37	2014/15
2.18	Admission episodes for alcohol-related conditions - narrow definition-Persons	667.79	640.78	2014/15
2.18	Admission episodes for alcohol-related conditions - narrow definition-Male	877.80	826.92	2014/15
2.18	Admission episodes for alcohol-related conditions - narrow definition-Female	476.09	474.24	2014/15
2.19	Cancer diagnosed at early stage (experimental statistics)-Persons	48.60	50.66	2014
2.20i	Cancer screening coverage - breast cancer-Female	78.60	75.40	2015
2.20ii	Cancer screening coverage - cervical cancer-Female	74.65	73.45	2015
2.20iii	Cancer screening coverage - bowel cancer-Persons	53.93	57.09	2015
2.20iv New	Abdominal Aortic Aneurysm Screening - Coverage -Male	83.38	79.37	2014/15
2.20xi Renumbered	Newborn Blood Spot Screening – Coverage -Persons	97.01	95.83	2014/15
2.20xii Renumbered	Newborn Hearing Screening – Coverage -Persons	99.21	98.53	2014/15
2.22iii Update	Cumulative percentage of the eligible population aged 40-74 offered an NHS Health Check-Persons	55.71	56.44	2013/14 - 15/16
2.22iv Update	Cumulative percentage of the eligible population aged 40-74 offered an NHS Health Check who received an NHS Health Check-Persons	40.32	48.59	2013/14 - 15/16
2.22v Update	Cumulative percentage of the eligible population aged 40-74 who received an NHS Health check-Persons	22.46	27.42	2013/14 - 15/16
2.23i	Self-reported wellbeing - people with a low satisfaction score-Persons	3.97	4.79	2014/15
2.23ii	Self-reported wellbeing - people with a low worthwhile score-Persons	-	3.82	2014/15
2.23iii	Self-reported wellbeing - people with a low happiness score-Persons	10.12	8.95	2014/15
2.23iv	Self-reported wellbeing - people with a high anxiety score-Persons	20.28	19.36	2014/15

Ref	Indicator	Telford and Wrekin	England	Time Period
2.24i	Injuries due to falls in people aged 65 and over-Persons	1402.00	2124.61	2014/15
2.24i	Injuries due to falls in people aged 65 and over-Male	1134.49	1739.76	2014/15
2.24i	Injuries due to falls in people aged 65 and over-Female	1669.51	2509.46	2014/15
2.24ii	Injuries due to falls in people aged 65 and over - aged 65-79-Persons	716.14	1011.97	2014/15
2.24ii	Injuries due to falls in people aged 65 and over - aged 65-79-Male	533.23	825.71	2014/15
2.24ii	Injuries due to falls in people aged 65 and over - aged 65-79-Female	899.06	1198.22	2014/15
2.24iii	Injuries due to falls in people aged 65 and over - aged 80+-Persons	3390.98	5351.28	2014/15
2.24iii	Injuries due to falls in people aged 65 and over - aged 80+-Male	2878.15	4390.51	2014/15
2.24iii	Injuries due to falls in people aged 65 and over - aged 80+-Female	3903.81	6312.04	2014/15

### Domain 3: Health Protection

Ref	Indicator	Telford and Wrekin	England	Time Period
3.01	Fraction of mortality attributable to particulate air pollution-Persons	4.63	5.33	2013
<a href="#">3.02 Update</a>	Chlamydia detection rate (15-24 year olds)-Persons	2013.00	1887.00	2015
<a href="#">3.02 Update</a>	Chlamydia detection rate (15-24 year olds)-Male	1236.10	1276.00	2015
<a href="#">3.02 Update</a>	Chlamydia detection rate (15-24 year olds)-Female	2845.80	2492.10	2015
3.03i	Population vaccination coverage - Hepatitis B (1 year old)-Persons	100.00	-	2014/15
3.03i	Population vaccination coverage - Hepatitis B (2 years old)-Persons	83.33	-	2014/15
3.03iii	Population vaccination coverage - Dtap / IPV / Hib (1 year old)-Persons	97.49	94.23	2014/15
3.03iii	Population vaccination coverage - Dtap / IPV / Hib (2 years old)-Persons	97.19	95.74	2014/15
3.03iv	Population vaccination coverage - MenC-Persons	97.22	93.89	2012/13
3.03v	Population vaccination coverage - PCV-Persons	96.89	93.88	2014/15
3.03vi	Population vaccination coverage - Hib / MenC booster (2 years old)-Persons	94.56	92.13	2014/15
3.03vi	Population vaccination coverage - Hib / Men C booster (5 years old)-Persons	95.33	92.39	2014/15
3.03vii	Population vaccination coverage - PCV booster-Persons	95.05	92.20	2014/15
3.03viii	Population vaccination coverage - MMR for one dose (2 years old)-Persons	95.50	92.29	2014/15
3.03ix	Population vaccination coverage - MMR for one dose (5 years old)-Persons	97.23	94.37	2014/15

Ref	Indicator	Telford and Wrekin	England	Time Period
3.03x	Population vaccination coverage - MMR for two doses (5 years old)-Persons	94.03	88.62	2014/15
3.03xii New	Population vaccination coverage – HPV vaccination coverage for one dose (females 12-13 years old) -Female	91.34	89.43	2014/15
3.03xiii	Population vaccination coverage - PPV-Persons	66.07	69.79	2014/15
3.03xiv Update	Population vaccination coverage - Flu (aged 65+)-Persons	71.12	70.99	2015/16
3.03xv Update	Population vaccination coverage - Flu (at risk individuals)-Persons	49.07	45.14	2015/16
3.03xvii New	Population vaccination coverage - Shingles vaccination coverage (70 years old)-Persons	58.66	59.05	2014/15
3.03xviii New	Population vaccination coverage - Flu (2-4 years old)-Persons	30.91	34.36	2015/16
3.04	HIV late diagnosis -Persons	43.75	42.23	2012 - 14
3.05i	Treatment completion for TB-Persons	-	84.79	2013
3.05ii	Incidence of TB-Persons	6.92	13.52	2012 - 14
3.06	NHS organisations with a board approved sustainable development management plan-Not applicable	60.00	56.51	2014/15

#### Domain 4: Healthcare and Premature Mortality

Ref	Indicator	Telford and Wrekin	England	Time Period
4.01 Update	Infant mortality-Persons	6.04	3.97	2012 - 14
4.02 New	Proportion of five year old children free from dental decay -Persons	77.02	75.20	2014/15
4.03	Mortality rate from causes considered preventable-Persons	198.44	182.70	2012 - 14
4.03	Mortality rate from causes considered preventable-Male	250.04	230.09	2012 - 14
4.03	Mortality rate from causes considered preventable-Female	149.10	138.39	2012 - 14
4.04i	Under 75 mortality rate from all cardiovascular diseases-Persons	80.33	75.72	2012 - 14
4.04i	Under 75 mortality rate from all cardiovascular diseases-Male	112.91	106.21	2012 - 14
4.04i	Under 75 mortality rate from all cardiovascular diseases-Female	49.14	46.89	2012 - 14
4.04ii	Under 75 mortality rate from cardiovascular diseases considered preventable-Persons	51.96	49.19	2012 - 14
4.04ii	Under 75 mortality rate from cardiovascular diseases considered preventable-Male	77.19	74.14	2012 - 14
4.04ii	Under 75 mortality rate from cardiovascular diseases considered preventable-Female	27.84	25.62	2012 - 14
4.05i	Under 75 mortality rate from cancer-Persons	159.40	141.51	2012 - 14
4.05i	Under 75 mortality rate from cancer-Male	179.03	157.67	2012 - 14

Ref	Indicator	Telford and Wrekin	England	Time Period
4.05i	Under 75 mortality rate from cancer-Female	141.16	126.60	2012 - 14
4.05ii	Under 75 mortality rate from cancer considered preventable-Persons	95.24	82.95	2012 - 14
4.05ii	Under 75 mortality rate from cancer considered preventable-Male	108.63	90.49	2012 - 14
4.05ii	Under 75 mortality rate from cancer considered preventable-Female	82.90	76.08	2012 - 14
4.06i	Under 75 mortality rate from liver disease-Persons	21.25	17.78	2012 - 14
4.06i	Under 75 mortality rate from liver disease-Male	25.80	23.39	2012 - 14
4.06i	Under 75 mortality rate from liver disease-Female	16.91	12.39	2012 - 14
4.06ii	Under 75 mortality rate from liver disease considered preventable-Persons	18.90	15.67	2012 - 14
4.06ii	Under 75 mortality rate from liver disease considered preventable-Male	24.38	21.00	2012 - 14
4.06ii	Under 75 mortality rate from liver disease considered preventable-Female	13.64	10.55	2012 - 14
4.07i	Under 75 mortality rate from respiratory disease-Persons	32.72	32.62	2012 - 14
4.07i	Under 75 mortality rate from respiratory disease-Male	34.10	38.25	2012 - 14
4.07i	Under 75 mortality rate from respiratory disease-Female	31.33	27.37	2012 - 14
4.07ii	Under 75 mortality rate from respiratory disease considered preventable-Persons	19.13	17.83	2012 - 14
4.07ii	Under 75 mortality rate from respiratory disease considered preventable-Male	19.25	20.14	2012 - 14
4.07ii	Under 75 mortality rate from respiratory disease considered preventable-Female	18.94	15.69	2012 - 14
4.08 Renamed	Mortality rate from a range of specified communicable diseases, including influenza -Persons	8.54	10.16	2012 - 14
4.08 Renamed	Mortality rate from a range of specified communicable diseases, including influenza -Male	-	11.20	2012 - 14
4.08 Renamed	Mortality rate from a range of specified communicable diseases, including influenza -Female	-	9.30	2012 - 14
4.09i Renumbered	Excess under 75 mortality rate in adults with serious mental illness-Persons	528.40	351.80	2013/14
4.09ii New	Proportion of adults in the population in contact with secondary mental health services -Persons	5.82	5.27	2013/14
4.10	Suicide rate-Persons	11.63	9.99	2012 - 14
4.10	Suicide rate-Male	17.77	15.76	2012 - 14
4.10	Suicide rate-Female	-	4.50	2012 - 14
4.11	Emergency readmissions within 30 days of discharge from hospital-Persons	11.45	11.78	2011/12
4.11	Emergency readmissions within 30 days of discharge from hospital-Male	11.57	12.13	2011/12
4.11	Emergency readmissions within 30 days of discharge from hospital-Female	11.27	11.46	2011/12

Ref	Indicator	Telford and Wrekin	England	Time Period
4.12i <a href="#">Update</a>	Preventable sight loss - age related macular degeneration (AMD)-Persons	135.86	118.08	2014/15
4.12ii <a href="#">Update</a>	Preventable sight loss - glaucoma-Persons	15.63	12.82	2014/15
4.12iii <a href="#">Update</a>	Preventable sight loss - diabetic eye disease-Persons	4.20	3.23	2014/15
4.12iv <a href="#">Update</a>	Preventable sight loss - sight loss certifications-Persons	43.67	42.38	2014/15
4.13	Health related quality of life for older people-Persons	0.70	0.73	2013/14
4.14i	Hip fractures in people aged 65 and over-Persons	548.02	571.34	2014/15
4.14i	Hip fractures in people aged 65 and over-Male	394.30	425.07	2014/15
4.14i	Hip fractures in people aged 65 and over-Female	701.73	717.62	2014/15
4.14ii	Hip fractures in people aged 65 and over - aged 65-79-Persons	250.61	239.18	2014/15
4.14ii	Hip fractures in people aged 65 and over - aged 65-79-Male	102.94	166.78	2014/15
4.14ii	Hip fractures in people aged 65 and over - aged 65-79-Female	398.27	311.57	2014/15
4.14iii	Hip fractures in people aged 65 and over - aged 80+-Persons	1410.50	1534.63	2014/15
4.14iii	Hip fractures in people aged 65 and over - aged 80+-Male	1239.25	1174.08	2014/15
4.14iii	Hip fractures in people aged 65 and over - aged 80+-Female	1581.76	1895.17	2014/15
4.15i	Excess winter deaths index (single year, all ages)-Persons	10.05	11.63	Aug 2013 - Jul 2014
4.15i	Excess winter deaths index (single year, all ages)-Male	23.83	9.98	Aug 2013 - Jul 2014
4.15i	Excess winter deaths index (single year, all ages)-Female	-2.45	13.21	Aug 2013 - Jul 2014
4.15ii	Excess winter deaths index (single year, age 85+)-Persons	10.69	15.85	Aug 2013 - Jul 2014
4.15ii	Excess winter deaths index (single year, age 85+)-Male	28.42	16.38	Aug 2013 - Jul 2014
4.15ii	Excess winter deaths index (single year, age 85+)-Female	0.60	15.53	Aug 2013 - Jul 2014
4.15iii	Excess winter deaths index (3 years, all ages)-Persons	15.80	15.65	Aug 2011 - Jul 2014
4.15iii	Excess winter deaths index (3 years, all ages)-Male	22.85	13.67	Aug 2011 - Jul 2014
4.15iii	Excess winter deaths index (3 years, all ages)-Female	9.39	17.52	Aug 2011 - Jul 2014
4.15iv	Excess winter deaths index (3 years, age 85+)-Persons	24.47	22.26	Aug 2011 - Jul 2014
4.15iv	Excess winter deaths index (3 years, age 85+)-Male	34.29	21.78	Aug 2011 - Jul 2014
4.15iv	Excess winter deaths index (3 years, age 85+)-Female	19.24	22.53	Aug 2011 - Jul 2014
4.16	Estimated diagnosis rate for people with dementia-Persons	-	52.50	2013/14

Source: [www.phoutcomes.info](http://www.phoutcomes.info)

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