# Public Health - delivering the fifth wave in Trafford

Public Health has been described as having had four 'waves' to date, each characterised by a focus on different aspects of population health improvements.

The first wave (approximately 1830–1900) is typified by classic structural public health interventions, such as water and sanitation. The second wave (approximately 1890–1950) used the scientific breakthroughs in many fields including manufacturing, and medicine, to develop biomedical programmes such as mass immunisation against disease. The third wave (approximately 1940–1980) includes the emergence of the welfare state, including the National Health Service, social housing, and universal education. Within the fourth wave (approximately 1960–present) there has been a focus on effective health-care interventions help to prolong life, an understanding of risk factors and lifestyle and an increased concern with social inequalities in health. In 2014 Sally Davies, Chief Medical Officer for England, in an article in *The Lancet*, further developed the emerging view that we were now entering a fifth wave of Public Health. The following paper borrows substantially from her exposition of what this means in practice.

The fifth wave recognises that one of the greatest challenges facing societies in the 21st century is the changing burden of disease, with a shift from communicable to non-communicable diseases. The rising burden of chronic disease poses a challenge for all public health systems and requires innovative approaches to improve population health. Chronic diseases are typically multifactorial nature and frequently have strong links to lifestyle-related factors such as smoking, diet, alcohol use, and physical activity. Persisting health inequalities are of particular concern, with people disadvantaged because of education, income, or social position less likely to participate in healthy behaviours, and people living in deprived areas tending to have higher rates of multiple risk factors than those living in more affluent areas. This pattern of health inequality is noted internationally.

The premise of the fifth wave is that population health improvement requires a culture in which healthy behaviours are the norm, and in which the institutional, social, and physical environment support this mindset. This will involve a broad range of stakeholders, both to promote the active participation of the population as a whole; and to work together towards health as a common good. It recognises that we need to act together and tackle a more diverse range of factors if we are to stop our more deprived populations from continuing to fall behind, and to enable everyone to achieve a healthy old age. It identifies that all of us need to make significant changes to our lifestyles, and that we cannot do this without changes to the culture and environment in which we live. Three key mechanisms are required to achieve this: **maximisation of the value of health and incentives for healthy behaviour; promotion of healthy choices as default; and minimisation of factors that create a culture and environment which promote unhealthy behaviour**.

**The first element for our investment proposition is therefore that we should invest in activities which maximise of the value of health and incentives for healthy behaviour.**

When seeking to encourage individuals to make healthy choices it is important to know whether health is a valued commodity for them – the more highly it is valued, the more likely they will engage, so maximising the value of health is important. This can be done first, through an increase in the intrinsic value that individuals attach to health and, second, by increasing the value of factors associated with good health— eg, through the reward of healthy behaviours. Achievement of the former requires changes in culture and attitudes, with respect both to the value placed on health by the individual, and by society shaping an institutional and social environment that supports individuals in the choices that they make.
This leads to a number of proposed actions:

- **Social networks could be used as messengers** to help to set norms and create local feedback conducive to healthy behaviours, as there is evidence demonstrating the importance of social networks in individuals' adoption of behaviours.

- **Incentives to encourage healthy behaviours—eg, through making healthier products cheaper, or taxing unhealthy products—can be effective to elicit behaviour change.** Examples include the effect of increasing the price of cigarettes on consumption, or the use of pricing policies to address hazardous alcohol consumption. In the context of food, findings from a systematic review of US interventions suggest that **subsidies that reduce the cost of fruits and vegetables for lower-socioeconomic populations might be effective in reducing obesity**. Taxing of less healthy foods enhances the value of healthy foods, thus incentivising purchases of healthy alternatives and acting as a barrier to unhealthy behaviour.

- **There should be an exploration at the Greater Manchester level of the opportunities afforded through the devolution powers to change taxation levels on unhealthy products such as alcohol or high fat, high sugar, high salt foods.**

- Evidence of the effectiveness of paying individuals directly to improve health-related behaviours is less clear, but i**nterventions focusing on group-level structures**, rather than individualised incentives, could have greater efficacy. For example, findings from a randomised controlled trial showed that a **workplace or group-based financial incentive was more effective than was an individual incentive for promotion of weight loss among obese employees,** at least in the short term. (Kullgren, JT, Troxel, AB, Loewenstein, G et al. Individual- versus group-based financial incentives for weight loss: a randomized, controlled trial. Ann Intern Med. 2013; 158: 505–514). **Trafford employers could be encouraged to test this approach.**

- Changes in the funding model of preventive health interventions towards one that emphasises outcomes could assist efforts seeking to increase the value placed on health.  One such method is the **Social Impact Bond model,** trialled in the field of social services; for example, such an outcome-based funding model is being trialled at Peterborough prison.

**The second element is to develop an environment where the promotion of healthy choices is the default option**

Not only is it important that health is valued, but also that choosing healthy options is relatively easy. This tenet was articulated in the Ottawa Charter by the term "making the healthy choice the easier choice". (WHO. The Ottawa Charter for Health Promotion 1986). This aim requires an environment that allows healthy choices to more readily become the default. Examples include **community-wide efforts such as reduction of the density or proximity of alcohol and tobacco outlets** to help to reduce consumption, and the learning from the LGA case studies of the use of planning powers to **limit hot food takeaways** (Tipping Point; LGA January 2016)  in using our licensing laws to help promote healthy eating and reduce obesity.

In addition, the NHS Forward View – Healthy New Towns prospectus July 2015 sets out a number of steps to building healthier homes and environments that support independence at all stages of life. This has six key recommendations in the following areas:

- to  promote new ways of **integrating housing, care and communities** to keep people independent and in their own homes, and, for those who do need support, more innovative residential care facilities may be combined with flexible housing options and step-up or respite care.
- **To tackle unhealthy (and "obesogenic") environments by creating walkable neighbourhoods,** delivering radically improved infrastructure for **safe active travel and more accessible public transport**, and by providing easy access to healthy and affordable food in the local area.  Active travel has been described as 'win win win' by the WHO, with **a return on investment within 5 years and multiple health, social and environmental benefits.**  Practical aspects include increasing 20mph zones, reducing reliance on private cars and improving public transport.
- To implementing a new 'operating system' for health and care that achieves **"triple integration" between primary and secondary care, mental and physical health, and health and social care**. This means developing a flexible health and care infrastructure that is linked to specialist care when needed, but provides many more services in the home, in primary care and alongside other public services. This infrastructure would also provide a strong platform for people to manage their own health and care, together with their peers and the voluntary sector, by making the most of mobile and digital channels.
- To create **connected neighbourhoods, strong communities and inclusive public spaces** that enable people of all ages and abilities from all backgrounds to mix. Examples include 'dementia-friendly' design or ensuring that public spaces include features such as public toilets or benches that can make the difference between people being able to get out and about and being confined to their homes.
- To **design healthy workplaces, schools and leisure facilities** that make the most of opportunities to encourage physical activity, healthy eating and positive mental health and wellbeing. This includes, but

is not limited to, the development of 'wellness' services, with use of whole-person approaches to improving health and integrating mental and physical health and wellbeing (as distinct from diagnosis and treatment of illness).

**Within Trafford, we should develop multi agency, intersectoral plans that address each of these key recommendations.  We will need to make progress in all six areas in order to realise the full benefits of any one element.**

**The third element is the minimisation of factors that create a culture and environment which promote unhealthy behaviour**.

Promotion of a culture encouraging healthy behaviour requires the minimisation of factors that promote a culture of unhealthy behaviour, such as the marketing of unhealthy products or products that might promote unhealthy behaviours. Available evidence suggests that the comprehensive set of tobacco advertising bans introduced in the UK  in 2003 can reduce tobacco consumption. For other products, such as alcohol or unhealthy foods, restrictions on marketing are less advanced, and tend to focus on concerns around children's exposure to marketing as exposure to alcohol marketing has been associated with the likelihood of the initiation of alcohol use in adolescents, and increased consumption in those already drinking. A study of primary school children in Wales showed high recognition of alcohol brands, emphasising how even young children develop brand awareness for unhealthy products. (Making an impression: recognition of alcohol brands by primary school children. Alcohol Concern, London; 2012).

Similar findings were noted for children and food marketing, (Harris, JL, Pomeranz, JL, Lobstein, T, and Brownell, KD. A crisis in the marketplace: how food marketing contributes to childhood obesity and what can be done. Annu Rev Public Health. 2009; 30: 211–225) and for teenagers in relation to cigarette brands. Therefore, to promote a society in which healthy choices are the default, **further effort is needed to limit the effects that encourage unhealthy behaviours.** The introduction of such changes as described in section 2 above on their own is unlikely to encourage behaviour change; such changes need to be embedded in the wider context within which people live. For example evidence suggests that provision of green space on its own is unlikely to encourage physical activity without complementary strategies that address determinants of health-related behaviour. Evidence shows that involvement of multiple stakeholders, including employers and the local private sector, contributes to favourable and sustained population health outcomes.

Designing away the need for cars has been assessed as the most important step in creating sustainable places.  This has the triple effect of lowering our energy use (especially imported oil), reducing global warming emissions, and raising our quality of life in cities by increasing mobility and convenience. Local authorities and other employers can take steps to reduce the car usage of their workforces, and **in Trafford**

**we could learn from areas such as Nottingham, where car use has decreased, and London, where cycling has significantly increased. The LGA has produced guidance on the steps required to achieve this** (Healthy people, healthy places briefing Obesity and the environment: increasing physical activity and active travel November 2013) and these should be implemented in Trafford.

Harrison and colleagues have drawn attention to the importance of effective communication of the health effects of choices to address the burden of chronic disease. They propose **the use of 'health footprints', which were defined as interventions that "bring the health consequences of a particular decision to the individual at the point of decision"**, (Harrison, O, Hajat, C, Cooper, C, Averbuj, G, and Anderson, P. Communicating health through health footprints. J Health Commun. 2011; 16: 158–174) as helping to steer health-related choices. This approach seeks to address the tendency for people to apply future discounting—when future outcomes are discounted relative to present outcomes—to their decisions related to health behaviour. The approach is supported by the evidence for the effectiveness of health warning messages on tobacco packages, and the emerging evidence on food labelling points to potential benefits of nutrient profiling using traffic-light signalling on consumer choices.

## Conclusion

Cultural values are shaped by all members of society, and realisation of the fifth wave involves individuals, the community, institutions, local and national government, and the private sector. The fifth wave considers the role of individuals as members of communities with a shared responsibility for putting processes in place to encourage healthier behaviour as the default, and supporting others to live healthy lives with empowered communities taking control of their own lives helping us to move towards this aim.

Achieving this collaboration between different groups will require alignment of motivations, attitudes, and trust to respond in innovative ways. The fifth wave of public health takes the learning from previous waves and syntheses this into the new wave. Collaborative efforts are needed to address contemporary and emerging public health challenges, while remaining alert to re-emergent challenges. For example, evidence is growing of the effect of lifestyle factors on immune response and health protection, such as the increased risk in smokers of becoming infected when exposed to tuberculosis.

Different groups are likely to contribute in different ways. Some of these groups are outside our immediate control.  For example, governments need to ensure that public health policy is informed by evidence and rigorously assessed, and coordinated between government ministries. Doing so would facilitate a health-in-all policies approach that involves intersectoral working on issues that affect health such as climate change; agricultural policies; transport; housing; infrastructure planning; and food standards.

In England, the transfer of some public health functions to local government and the establishment of Health and Wellbeing Boards provide opportunities for cross-sector coordination locally.

These Boards are fora in which key leaders from the health and social care system work together to improve the health and wellbeing of their local population and reduce health inequalities. In view of the wide remit of local government, including local infrastructure planning, waste and recycling, leisure and tourism, social care, and others, there are several opportunities to promote healthy environments, and the governance structure for this needs to be further developed. As examples, action could include **reduction of the density and proximity of alcohol, tobacco, and fast food outlets** through incorporation of a form of health impact assessment into approval processes for planning. The promotion of active travel could see bicycle storage and secure bicycle parking built into housing and street design.

The private sector can also play a part, as employers, as building and land owners, and through their effect on consumers. **In particular, as employers, industry** has a role in the promotion of the health and wellbeing of their present and potential workforce.

**Health and social care professionals can influence at an individual level**, supporting individuals to adopt healthier lifestyles and so improve health outcomes. At the same time, integrated public health services are needed to address multiple lifestyle factors. New challenges, such as the growth in antimicrobial resistance, infections and the rise of antimicrobial resistance, and growing numbers of people with chronic diseases leading to increased numbers of people who are immuno-suppressed, require the adoption of health improvement strategies to address these health protection challenges. As an example, tuberculosis outbreaks that involve smoking cessation as part of the response will need to become the norm.

This paper has taken as its starting point the article by the CMO, Sally Davies, in the Lancet in 2014: For debate – a new wave in Public Health improvement http://thelancet.com/journals/lancet/article/PIISO140-6736(13)62341-7

Further articles on delivering urban sustainability include the following:
www.smith-institute.org.uk/wp-content/uploads/2016/07/Towards-a-suburban-renaissance.pdf (this includes Greater Manchester as case study)
and www.fastcoexist.com/3016816/the-10-cities-that-are-leading-the-way-in-urban-sustainability


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