Healthy lives

Why are 'healthy lives' interventions so challenging?

May 2016 (updated January 2017)

This work is funded by the Health Foundation and produced by C3 Collaborating for Health.
The Health Foundation is an independent charity committed to bringing about better health and health care for people in the United Kingdom

Director: Christine Hancock
CAN Mezzanine, 7–14 Great Dover Street, London SE1 4YR, United Kingdom; Tel +44 (0) 20 3096 7706
www.c3health.org; Twitter @c3health

1. Executive summary

This paper goes beyond the evidence, initiatives and themes set out in a series of briefing papers (on Early Years, Children and Young People, Communities and Workplace) to draw out what can be done to foster a health-promoting environment and initiatives – or, more specifically, to understand why more is not being achieved.

Section 2 sets out the challenge: that life expectancy in the United Kingdom is the highest it has ever been but although we are living longer, we are not necessarily living healthier. Much of this ill-health could be prevented or delayed through lifestyle change – but the levers that can facilitate this, for the most part, lie outside the health services: the case study of tobacco control is provided as an exemplar of success (albeit with some caveats). Sustainable behaviour change needs a health-promoting environment – allowing interventions to take root and become (healthy) habits – but the environment is too often stubbornly un-health-promoting.

The barriers to creating this health-promoting environment are detailed in section 3, illustrated throughout with examples (macro-level policy interventions and on a more local level). These barriers include thinking only within silos rather than taking a 'whole-of-government, whole-of-society' approach, and failing to factor in long-term benefits of health-promotion efforts across departments and budgets. Difficulties in measuring and evaluating the impact of initiatives is a theme that has run throughout the suite of briefing papers, and is dealt with here. The difficulties of replicating initiatives – which can be successful in one place, but fail in another cultural, social or physical setting, or with a different leader – are covered. Lack of resources, particularly in an era of shrinking public-health budgets, is often cited as a reason why interventions do not take root – but there are ways to activate existing physical and human assets within communities, which can be particularly effective when combined with good connections between the many initiatives that are already ongoing. Finding information on what works (or, just as important, what doesn't work) is also challenging. Finally, the barriers to the creation of a 'culture of health' are listed – such as unhealthy social norms, low expectations, vested interests and misleading messaging.

The paper concludes with ideas and approaches that could begin to shift the paradigm from a culture of sickness towards a culture of health. As Lord Crisp noted in 2015 in the *British Medical Journal*, 'The UK was one of the pioneers in introducing a universal healthcare system available to the whole population. It could lead again in the development of a health creating society.'

2. Introduction

Life expectancy in the United Kingdom is the highest it has ever been: 79.5 for men and 83 for women, a rise of over 30 years since the turn of the 20th century (Newton 2015). However, recent increases in life expectancy are not always accompanied by equivalent improvement in healthy life expectancy – we may be **living longer, but we are not necessarily living healthier**, particularly those in lower socioeconomic groups (Jagger 2015). Many older people are living with chronic, non-communicable diseases such as cardiovascular disease, type 2 diabetes, cancer and dementia, which are causing distress to individuals and families, and placing an increasingly heavy burden on the NHS.

The tragedy is that many of these conditions – over half of type 2 diabetes, for example – could be prevented or delayed through healthier lifestyles: a better diet (including not drinking to harmful levels), quitting smoking, and being more physically active. Often, however, the environment in which we live, learn, work and play mitigates against health: the easy choice is not the healthy choice. We all face barriers to leading healthy lives, but it is often particularly challenging for those who are less well off: the social determinants of (ill-)health are well documented.

The NHS *Five Year Forward View* has begun to take a longer-term, more holistic approach to health, and the embedding of Health and Wellbeing Boards in local authorities also gives an opportunity to orient towards a broader definition of health. As Simon Stevens, the CEO of NHS England, has noted, it is at our peril that we forget that the 'H' in 'NHS' stands for 'health', not 'sickness'.[1] However, the **levers of change** in our everyday lives – the environments, organisations and individuals that shape our decisions on health – lie largely outside the medical community: with businesses, community leaders, transport officials, teachers, faith leaders, and many others.

We each make myriad daily decisions that impact upon our health. As Nobel Laureate Daniel Kahneman (2011) and many others have written, the majority of these decisions are fast, instinctive and automatic, rather than slower, more deliberative and logical – so an environment and initiatives that are conducive to **healthier automatic or low-agency choices** are the most sustainable and should be targeted as part of public-health efforts (Marteau et al. 2012; Adams et al. 2016). What begins as an intervention can then take root and become a (healthy) habit.

This paper focuses on what can be done to foster a health-promoting environment and initiatives – or, more specifically, on **why more is not being achieved**. Making an impact on people's health is difficult and, even where we think we know what to do to make it easier to be healthy, or where interventions have been proven to be successful, there are serious barriers to wider implementation. The environment, and behaviour (both of individuals and institutions) within that environment, often remain stubbornly un-health-promoting. The paper details many of these barriers, providing examples (macro-level policy interventions as well as at more local level) both of what has not worked and of when the challenges have been overcome, in the hope that this can point the way forward to progress in the future. It builds on the evidence, initiatives and themes of the series of briefing papers produced by C3 Collaborating for Health for The Health Foundation (Early Years, Children and Young People, Communities and Workplace) but goes beyond them to draw out the wider challenges and opportunities.[2]

A note on terminology: Words such as 'intervention' and 'initiative', used throughout this paper, do not always refer to formal programmes of work. Instead, they may be very informal – people taking part would not regard them as 'interventions'.

[1] Speech at Nesta conference, 'The future of people-powered health', 9 February 2016.

[2] C3 also gratefully acknowledges the help given by the following at a brainstorming session to inform this paper, held in April 2016: Justin Varney (Public Health England), Mark Cobain (Younger Lives), Phil Veasey (MyTime Active), Emma Spencelayh (The Health Foundation), Jane Abraham (Flourish Workplace), and Chris Holmes, Pat Hughes, Pat Goodwin (C3 expert associates). The discussion was held under the Chatham House Rule.

Tobacco in the United Kingdom: an exemplar of success?

In the 1950s, when **compelling evidence** was established that linked smoking and lung cancer, tobacco use among adults in the United Kingdom stood at around 80 per cent among men, with the rate among women peaking in the mid-1960s at 45 per cent (ASH 2016). Today, this has fallen to 20 per cent of men and 17 per cent of women – a public-health exemplar, albeit over a long period of time.

It took years for the medical profession and government to accept the evidence (initially seen as scaremongering and failing to show causation (Peto and Beral 2010)) and become **leaders** in the drive to reduce tobacco, but over half of doctors who smoked gave up between 1951 and 1964. Since then, reductions in tobacco use have been encouraged through strong **fiscal policy**: tax on tobacco products has been dramatically increased (particularly from the early 1990s onwards) to its current level of around 75 per cent of the total price of a packet of cigarettes.* There have also been many public campaigns to highlight the risks of tobacco use (focusing not only on health, but also the impact of smoking on looks).

Legislation has also been used to make tobacco products **less readily available** – for example, there are restrictions on sale of cigarettes to children (introduced as early as 1933, in the Children and Young Persons Act) and, since 2011, cigarettes cannot be sold in vending machines.

Smoking is an addiction, and reducing smoking through **medical means** is more feasible than many of the lifestyle risk factors addressed in this thinkpiece, such as nicotine replacement therapy, hypnotherapy and counselling – and e-cigarettes are also increasingly being used by people who are trying to quit. There are also evidence-based apps on offer to provide behavioural-change support.

There is clear evidence of the harm caused by second-hand smoke, which increases the chance of heart disease and lung cancer by around a quarter among non-smokers exposed to it, as well as links with stillbirth, conditions such as asthma and dementia (ASH 2014). Smoking is an unhealthy behaviour whose consequences reach far beyond the individual. This evidence was an important driver of the **ban on smoking in enclosed public places**, which came into effect in 2007 in England.

In addition to the smoking ban, a wide range of legislative and informal steps have been taken to **change the visibility and acceptability** of smoking (ASH 2015), for example:

- tobacco advertising on broadcast media (television and radio) was banned in the 1990s, followed in 2003–5 by print media, billboard, direct marketing and sponsorship (including of sporting events);
- in the 1950s, smoking in the movies was sexy; today, this framing of smoking is far less common;
- following initial restrictions on point-of-sale advertising in 2004, tobacco products are now hidden from sight when on sale; and
- hard-hitting advertisements on TV and the graphic imagery added to (unbranded) packaging are shock tactics to discourage smoking – including at the point of sale.

The combination of all these factors has been the creation of a **new social norm**. The younger generation are growing up having never seen advertisements for cigarettes or tobacco companies sponsoring sporting events; smoking is something that takes place away from others (and particularly children); it is no longer normal for non-smokers to return from a night out smelling of cigarette smoke. The social narrative as well as the environment for smoking has changed, with the impact taking place to scale.

There are, however, some **important caveats**. Tobacco companies are finding new ways to circumvent legislation and promote their products – whether through placement in television programmes or films, or (particularly) through the internet, which is largely unregulated. And, crucially, the headline rate of smoking masks serious differences between socioeconomic and demographic groups: smoking among girls is at twice the rate of boys (HSCIC 2015), and the rate of smoking among the poorest quintile is double (men: 32.9 per cent; women 26.1 per cent) that of the most well off (men 14.3 per cent; women 10.2 per cent) (ONS 2014). The battle is far from won.

* The 'price elasticity' of cigarettes is estimated at around -0.4 – i.e. a 10 per cent price increase causes a 4 per cent fall in consumption – and higher among teenagers and young adults (Gallet and List 2003).

3. Why is more not being achieved?

Note: This paper does not address in detail the psychological barriers (mentioned in section 2) or the underlying biological factors that can influence behaviour and be used to design personalised approaches to interventions to, for example, nutrition and physical activity. Instead, this paper focuses on the systemic and environmental barriers to behaviour change.

3.1 Thinking outside silos and across time

The majority of things that can be done to benefit health do not fall within the purview of the health services (McGovern et al. 2014). This is a particular challenge as the financial return on investing in health often falls outside the sector in which the investment was made – the health benefits are a positive externality (see Box: Active travel – a sector connector, on the next page). Ways need to be found to ensure 'diagonal accounting' (ensuring that the payback from health improvement forms part of the investment decision across sectors) and 'societal accounting' (ensuring that the full societal benefits are factored in) (see also Box: Social Value Act).

Pooling resources across sectors (making investment and benefit fall within the same budget), or innovative ways to align incentives, could make a difference here. This is only possible by **thinking across the traditional silos** within which government departments and voluntary organisations function – moving away from a culture of specialisation towards more joined-up thinking. There is already an All-Party Parliamentary Group on 'Health in all policies' (Parliament 2016), an approach encouraged by the World Health Organization and other international bodies (WHO 2013a). But as a minimum, government departments should stop undermining each other in health (Crisp 2015), with attempts made to achieve policy alignment between national policy, health bodies, local authorities and voluntary organisations. The World Health Organization has described a 'whole-of-government, whole-of-society' approach (WHO 2013b) as essential for making progress in healthy lifestyles.

Social Value Act

The Social Value Act 2013 provides an opportunity to take wider returns on investment into consideration in procurement, requiring commissioners in the public sector (including local authorities and health-sector bodies) to look beyond efficiencies and the headline cost, taking economic, social and environmental wellbeing ('social value') into account. This can improve service delivery, increase economic growth and improve community relations – for example, employing local people, prioritising local supply chains, acknowledging and harnessing the expertise of local voluntary and community groups, limiting local environmental impacts, and requiring contractors to pay a living wage (Allen and Allen 2015). It could also begin to redress the cuts in funding that in half of all authorities in 2012 had been falling disproportionately on the voluntary sector, by acknowledging, valuing and harnessing the expertise of local community groups (Compact Voice 2012).

- *Example*: **parkrun** is a free-to-participate, weekly, 5km run, currently participated in by around 120,000 people each week in over 400 locations around the country. Stoke Gifford Parish Council became the first council to attempt to charge the 200-odd runners to take part, claiming that they were causing wear and tear to the paths, and ignoring the long-term health benefits of the weekly exercise. Rather than becoming a source of income, the run was cancelled – simultaneously reducing use of the public park and making it harder for local people to prioritise their health (Sellick 2016).
- *Example*: The **MEND** – Mind, Exercise, Nutrition, Do It! – programme is an RCT-proven weight-management initiative aimed at overweight children and their families (Sacher et al. 2010). Prior to the Health and Social Care Act, MEND was commissioned by PCTs, but the initiative could not sustain itself for the period in which responsibility for health and wellbeing moved into local authorities. It avoided going into administration when it was taken over by MyTime Active at the end of 2012 (Walker 2012).
- *Example*: Efforts by the Scottish government to introduce **minimum pricing for alcohol** have been challenged in the European Court of Justice, on the grounds that it will impede the alcohol industry's right to trade freely (BBC News 2015). It was found by the European Court not to be a breach of European law, and was also backed by the Scottish courts in 2016 (BBC News 2016).

A further barrier to joined-up thinking is that the **payback from health-promotion activities may not be seen for many years**.[3] Investment decisions are often short term, driven by businesses' reporting cycles (which may deter investment in workplace health) or by political cycles, which are much shorter than the time periods needed to realise the long-term savings of, for example, diabetes prevention initiatives. The timescale needed may even extend **intergenerationally** – efforts to improve the health of young women (help with quitting smoking and maintaining a healthy weight) can have multiplier effects across into the next generation.

One way to address this issue is to identify shorter-term paybacks of initiatives that can motivate the investment. For example, addressing physical activity and diet will reduce levels of hypertension in the short term as well as type 2 diabetes in the long term. And encouraging an active school day is unlikely to be achieved through a focus on the children's chances of heart disease in 40 years; instead, focusing on the benefits for concentration and academic attainment will motivate headteachers to include physical activity as central to the curriculum.

Active travel – a sector connector

An example of an approach that has co-benefits beyond the health sector is active travel: promoting walking and cycling. Physical activity's benefits for health are well documented (C3 Collaborating for Health 2012), and a recent study found 'robust, independent associations between active commuting and healthier bodyweight and composition' (Flint and Cummins 2016).

In addition to the health of individuals, active travel can benefit *employers* (through improved productivity and reduced sickness absence among fitter employees), *teachers* (through better pupil concentration in class), and *wider society* through reduced road danger from fewer cars, and reductions in noise pollution and, particularly, air pollution, to which an estimated 40,000 deaths are attributable in the United Kingdom each year (RCP/RCPCH 2016).

However, these benefits largely fall outside the transport budget, so a cross-cutting case needs to be made – and this can be made more complicated by vested interests that oppose improvements to active-travel infrastructure, such as lobbying against the Cycle Superhighways in London (Boardman 2014). HEAT – the Health Economic Assessment Tool – developed by the World Health Organization, estimates the longer-term cost-benefit of investing in active travel (Kahlmeier 2014). A study by public-health economists estimated that if walking was doubled and cycling increased eight-fold between 2010 and 2030 (as called for by the then chief medical officer of England), the savings would be roughly £17 billion for the NHS in England and Wales (Jarrett et al. 2012).

3.2 What, how and when to evaluate?

The failure to obtain sufficient data to be able to prove impact – and in some cases the failure to measure any data at all – is a problem because **what is not measured cannot be managed**. But capturing data and using it to evaluate the impact of interventions takes time, money and expertise, of which many local initiatives – in businesses or local communities, for example – are often short (see section 3.4).

Traditional randomised controlled trials (RCTs) – the gold standard for medical research – are impossible in complex systems where there are too many variables for which to control. Interventions to improve healthy lifestyles:

- often address many co-challenges to health, which are hard to unpick;
- take place in the settings in which we live, learn, work and play – which are unlikely to be sufficiently comparable to be used as a control/trial site;
- would benefit from rapid feedback loops (adjusting the initiative as people's behaviour or environment changes) – which traditional research approaches may not permit (Edovald 2016); and

[3] There are parallels here with the failure to take earlier action to counter the long-term threat of climate change.

- struggle with what to measure and whether it gives the full picture. For example, an obvious set of data to collect in workplaces is absenteeism – but where there is pressure to be at work, employees may then attend work, while ill (presenteeism), affecting both their own productivity and, potentially, impacting the health of others.

In an attempt to ensure rigour in collecting evidence, Nesta has produced a Standards of Evidence framework (Puttick and Ludlow 2013) (see Box). However, **the vast majority of health initiatives do not meet these standards**. For example, a 2014 survey of over 950 physical activity interventions (PHE 2014) found that fewer than a third (263) stated that they had undergone any kind of external evaluation. When these were investigated to see how they matched up to the Nesta standards of evidence, 192 were rejected because they did not use control groups or did not provide information on the external evaluation. Of the remainder, none reached level 4 (proven practice), two reached level 3 (promising practice), 28 reached level 2 (emerging practice) and four reached level 1 (developing practice).

- **Nesta: Standards of Evidence**
- Level 1: You can describe what you do and why it matters, logically, coherently and convincingly
- Level 2: You capture data that shows positive change, but you cannot confirm you caused this
- Level 3: You can demonstrate causality using a control or comparison group
- Level 4: You have one or more independent replication evaluations that confirms these conclusions
- Level 5: You have manuals, systems and procedures to ensure consistent replication and positive impact

Despite these challenges, evidence-gathering and evaluation is important both to show impact and to demonstrate cost-benefit if replication or scaling up is being considered. The impact of many workplace-health initiatives cannot be assessed, for example, because no form of baseline or ongoing measurement or evaluation has taken place (see the Workplace paper in this series, section 3.1.2). Where possible, evaluation should be part of the stated objectives of an intervention (Lobstein 2015), not just an add-on or an afterthought. Care should also be taken not to be deceived by average results, when it is the hardest-to-reach who are in most need of empowering to lead healthier lives.

It is worth noting, however, that many small community-based interventions are initiated and run by volunteers, so requiring overly onerous data gathering could overburden the project to the extent that it fails.

Quantitative evaluation is not the only data that is of value in this space. Qualitative evaluation – **hearing the stories of people who have taken part** – can provide a powerful motivator: anecdotal evidence can begin to change the societal narrative around health.

- *Example*: The **Daily Mile** run, instigated by the headteacher of a Stirling primary school, is making an – initially formally unevidenced – impact on wellbeing: the children love it, obesity rates are said to have fallen in the school, parents report that children are sleeping better. Even without formal evaluation, already inspired a Daily Mile movement around the country (http://thedailymile.co.uk/).[4] While evidence can catalyse action, **the lack of (robust, peer-reviewed) evidence must not stymie action!** And this is now being proved to be a good course of action – a study in Waltham Forest found significant increases in fitness among children taking part, and it may have contributed to improvements in academic testing (London Playing Fields Foundation et al. 2017).

3.3 Transplanting success: social and physical environments

One of the most serious – and unpredictable – barriers to the replication of health interventions is that **success may be highly dependent on factors such as culture and place**. Everyone and everywhere is

[4] Further evalution is planned by Edinburgh University and Stirling University, with the research title: Using the Daily Mile to turn the WHEEL (Wellbeing Health Enjoyment Exercise Learning): a pilot study to assess body composition, physical activity, cognition and wellbeing in pupils who take part in the daily mile.

different, and the success of a health intervention is dependent on appropriate targeting, taking into account the **social as well as physical environment** within which people live.

- *Example*: When free school meals were offered only to those whose families were on the lowest incomes, an estimated 500,000 children did not take it up, due to the **stigma** of being seen to be less well-off (The Children's Society 2012). However, once the meals were offered to everyone (since 2014 to all reception, year 1 and year 2 pupils), uptake of the meals and academic achievement increased, particularly among the children from lower socioeconomic groups (Kitchen et al. 2013; Department for Education 2014).
- *Example*: **Family Nurse Partnerships** is based on a successfully implemented US programme, in which a specially trained family nurse visits first-time mothers aged 19 or under to help them have a healthy pregnancy, improve their child's health and development, plan their own futures and achieve their aspirations. However, an RCT in England (Robling et al. 2015) found no impact across the study's four main short-term outcomes – prenatal tobacco use, birth weight, subsequent pregnancy by 24 months and A&E attendances and hospital admissions in the first two years of life. These less positive results are perhaps explained by the young mothers not being as disadvantaged as those in the US trials, and the higher levels of universal and specialist services available in the United Kingdom.

Failure to assess communities' assets and needs or to co-create solutions with the people themselves is a major barrier to successful implementation (see section 3.2 of the Communities briefing paper in this series). In many deprived communities, individuals' wellbeing concerns will be around the social determinants of health, such as debt and relationships. (For examples, see the vox pop interviews conducted by the Guy's and St Thomas' Charity (GSTT Charity 2015) and the public dialogues undertaken by the What Works Wellbeing Centre (2014).) They may have very low self-efficacy, and without taking control of these issues interventions are likely to fail.

- *Example*: A successful, holistic, community-based initiative is the **Bromley by Bow Centre** in a deprived area of Tower Hamlets, East London. Working in partnership with organisations including the local housing association, patients are referred to non-medical sources of support – social prescription – through local services, programmes and projects, such as healthy-eating groups or arts and crafts, befriending services and to health, wellbeing and healthy lifestyles support, social welfare or employment programmes. The Centre has been running since 1984, and is held up as a model of best practice. It has contributed to the development of a number of national policy initiatives (such as the Health Trainer initiative) and a report into its effectiveness has been commissioned with Public Health England. The Centre recommends that those wishing to replicate it should instead think about what can be 'translated' from the model – starting small, and based on compassion, positive design and fun (BBBC undated).

Sociocultural differences between populations – such as around food, physical activity, and body-size perception – can prevent the successful translation of efforts to improve health.

- *Example*: Following three consistently positive pilots in New Zealand, the **Pacific Obesity Prevention In Communities Project (OPIC)** was extended to South Auckland (an area with a high proportion of the population from the Pacific Islands), and to Fiji and Tonga (Swinburn et al. 2011). Here, because of cultural differences, it was met with a notable lack of success: indeed, during the study period the proportion of the Tongan population with overweight or obesity increased from 55 to 65 per cent (Fotu et al. 2011).

The **location of delivery** of interventions (such as GP surgeries) can be intimidating, but providing advice on health issues where people actually live, work or study lowers this barrier (a 'low agency' decision – see section 2).

- *Example*: Diabetes UK has used '**healthy lifestyle roadshow buses'**, which can be parked in (for example) supermarket car parks to reach people who would not usually go to a GP surgery for advice (Diabetes UK 2014). Those attending are asked a series of questions and their BMI measured; anyone considered to be at high or moderate risk of developing type 2 diabetes in the next 10 years is asked to visit a GP for further tests and discussion.

- *Example*: '**Health huts'** are safe spaces – sheds – where young people can receive confidential advice from trained health-improvement advisers. It is a drop-in service, normally running for three hours or over school lunchtime (Community Southwark 2014).

As well as community consultation, if strong **leadership and vision** are lacking then initiatives are unlikely to take off (see also section 3.4) – notable leaders include Andrew Mawson and Sir Sam Everington (Bromley by Bow Centre) and Hazel Stuteley (The Beacon Project). There is, however, a danger that initiatives may rely too much on the inspiration and dynamism of an individual, making them hard to replicate, and the impetus for initiatives may vanish if the leader moves on. If a leader is politically appointed – a mayor or a mayoral employee, for example – the end of term can mean the end of an initiative. **A tipping point is reached when a successful intervention no longer needs a specific individual to be sustainable**.

3.4 Where are the resources?

Compared to the resources that go into treatment, **prevention is woefully under-resourced**. In 2015, only 5.4 per cent of health-related research expenditure by the largest government and charity funders was dedicated to primary disease prevention or health promotion (UKCRC 2015). In addition, local-authority funding for public health – in contrast to the NHS budget, which is ringfenced – was cut by 7.4 per cent (£200 million) in 2015. This notable failure of joined-up thinking was described by the chief executive of the Royal Society of Public Health as 'entirely inconsistent with Government's stated priorities and especially considering the "radical upgrade in prevention and public health" highlighted in the 5 Year Forward View' (Cramer 2015).

Even when funding is found to establish initiatives, if **economic sustainability** is not factored into the design then the programme will end when the grant ends. Even initiatives such as Shape Up Somerville, which is held up in the United States and internationally as an exemplar on what can be done to reduce childhood obesity, has been funded through a series of one-off grants, and may struggle to maintain itself in the long term.

As initiatives expand there is a danger of **scaling but failing**, due to the extra burden that it places on the organisation's human resources (people and time), which may not be able to adapt rapidly enough.

However, finding local people who are willing to take a lead in health interventions, and local physical assets with under-used capacity (such as school sports facilities), may not be as difficult as anticipated. **Identifying and activating these people and assets** is likely to make initiatives far more sustainable than had been anticipated – a practical incarnation of the parable of the loaves and fishes.

- *Example*: **Workplace health champions** are employees who take a lead role in promoting healthy lifestyles to their peers, equipped through a health champions programme with the knowledge, confidence and skills to make a difference in their workplace. These initiatives can have benefits for champions themselves (to their physical health and their confidence), for colleagues at the sites, and outcomes related to indirect beneficiaries (e.g. employees' families).
- *Example*: The **Square Mile (Mile^2)** community-engagement initiative in Leicester is an initiative of De Montfort University in an area local to the university. It brings together academic expertise and a network of student volunteers in harnessing, supporting and coordinating local organisations to offer potentially life-changing services in the local community, including in schools (such as subject-specific mentoring, sports activities and IT training for parents and children) and health projects (such as a successful campaign to recruit people to the stem cell register and a project helping people living with diabetes to manage their condition) (DMU 2016).

Training people to **factor health into their current role** – to do things differently – can also make an impact. Professionals including GPs, pharmacists (particularly community pharmacists), faith leaders, teachers and occupational health professionals can all be trained to think more holistically about their role in healthy lifestyles.

- *Example*: The **HENRY (Healthy Exercise and Nutrition for the Really Young) programme** includes training for health and early-years practitioners, individual or group-based family interventions, and

parent-led peer-support schemes, enabling child-care settings to model a healthy lifestyle and providing accessible resources to support work with families. The HENRY e-learning course has been piloted on 535 community and health professionals from 115 Children's Centres. This light-touch approach embeds knowledge about healthy lifestyles into existing roles at very low cost, and has had significant success (Willis et al. 2013).

- *Example*: **Making Every Contact Count** (MECC) is a behaviour-change approach using the millions of interactions that take place in the public sector between health professionals, the police and others every day with those with whom they work, to support them in making positive lifestyle changes. MECC encourages the opportunistic delivery of consistent and concise healthy lifestyle information through brief discussions on health and wellbeing (PHE et al. 2016b).

3.5 Finding out – and understanding – what can be done

Too often, there is not enough knowledge about what can be done to improve health, which at an individual level can be due to poor education (see Box on health literacy) – although knowledge is only one step in the process: self-efficacy and an environment that enables healthy choices are also required for sustained behaviour change.

Lack of understanding of what needs to be done extends far beyond the individual:

- Public health has been located within council services since 2012, but there is limited knowledge as to how to access the resources that make public health everyone's business – hence, existing resources are not activated, publicised or connected. Public-health teams are overstretched and facing budget cuts, and do not have the time to look across the whole system to join up all the many existing resources. One suggestion to enable the delivery chain to do this to better effect could be to fund **system translators** to forge relationships between the health services and local government (NLGN / Collaborate 2016). They could also create links with other professions that touch on public health – such as the fire services, hairdressers, housing professionals and postal workers – who are the target of the Royal School of Public Health's work on 'rethinking the public health workforce' (RSPH 2016).
- **Community connectors** – the town criers of today – are people at the heart of communities, able to spread the word about what is going on locally, and make links and build trust and engagement between residents, services and opportunities. Failure to connect with such individuals will stymie efforts to connect and embed healthy-living initiatives. (An example of this model, focusing on older people, is Camden Community Connectors: http://www.camdencommunityconnectors.org.uk/.)

It is also **challenging to find resources** – for example, case studies on how to put theory into practice. Public Health England has a knowledge library, and there is relevant guidance (for example on workplace health and community engagement) from the National Institute of Health and Care Excellence (NICE). However, this is hard to find online and much harder to translate into practice. In addition, what doesn't work is often not published – so the same mistakes may be repeated when they could have been avoided. (There is a parallel here with calls to tackle the reporting of medical studies only when they have positive results (All Trials 2014; WHO 2015).)

Embedding knowledge into practice can take time. The Royal College of GPs has recently stated that physical activity is one of its priorities for the next three years – this will not have an immediate impact on the knowledge and approach of GPs, but is a positive shift in attitude towards prevention. There is certainly much more to be done – despite the clear benefits of physical activity on recovery from many cancers, for example, a 2012 UK survey showed that 82 per cent of people living with cancer had not been spoken to about physical activity by their GP (Macmillan Cancer Support 2012).

Finally, there is a **failure to share knowledge among different groups**: who is it who wants to know what is out there and what can be done, and how can this be better communicated? There is a need for better communication and understanding between academia and policymakers (whose policies can help or hinder the development of initiatives) (Cairney and Oliver 2016), as well as those running initiatives on the ground.

Understanding health: literacy

Low levels of educational attainment are a key social determinant of health and inequality. This inequality begins in childhood and persists into adulthood: between 2003 and 2011, the proportion of adults reading at the lowest level increased from 3.4 per cent to 5 per cent (BIS 2011), with the highest illiteracy rates in areas of deprivation (McCoy 2013). From this springs low levels of health literacy, which is predictive of poor diet, smoking and lack of physical activity, is associated with an increased risk of disability and premature death in older adults, and is more common in people with long-term conditions such as depression, diabetes or heart disease (PHE 2015). However, studies of health literacy tend to focus on it as a clinical tool (e.g. how health literacy is linked to taking medication or to effective rehabilitation) – there is an **apparent gap in the research around health literacy as the ability to take control of your health** (and lifestyle) more broadly (Carbone and Zoellner 2012). There is also insufficient information available in the peer-reviewed literature on how effective interventions to promote health literacy are in attracting the target population, or achieving an effect that is sustainable (Allen et al. 2011).

A more recent layer of health literacy is **e-health literacy** – and even populations of college students (who would be expected to be more computer literate than average) may lack the skills to interpret and apply health information drawn from the internet (Stellefson et al. 2011).

3.6 Creating a culture of health?

In the United Kingdom, health and wellbeing are not a 'whole-of-government, whole-of-society' concern, nor is there 'health in all policies', as noted in section 3.1. Instead, the environment is too often obesogenic (Foresight 2007), policies are contradictory, and many individuals' circumstances severely constrain their freedom to make healthy choices.

In the United States, the Robert Wood Johnson Foundation is spearheading a new movement towards a 'culture of health' in which 'well-being [is placed] at the center of every aspect of life. It's a culture in which communities flourish and individuals thrive. A culture that enables everyone in our diverse society to lead healthier lives, now and for generations to come' (RWJF 2016). This follows the realisation that 'we have started to recognize that health can be greatly influenced by complex social factors. But those working to improve health, well-being, and equity still too often find themselves traveling on parallel paths that rarely intersect.' However, there are significant barriers to achieving such progress in health and wellbeing more broadly.

- **Politics**: 'Individual responsibility' is at the core of the prevailing political philosophy of political parties and the majority of the general population – 71 per cent of participants in a 2014 opinion poll agreed with the statement 'Individuals should be responsible for their own lifestyle choices and the government should not interfere' (Snowdon 2015).

  There are, however, examples of reaching a tipping point of public opinion after which there is a political imperative to act to improve health – most notably the ban on smoking in public places, the imposition of the tax on sugary drinks, the requirement to wear seatbelts, or the drive towards improved, free school meals.

  There is also a gap between policy and implementation – while politicians have delivered good policies on (for example) physical activity, implementing them in practice has proved much more problematic: 24 per cent of men and 27 per cent of women are classified as 'inactive', doing less than 30 minutes of physical activity a week (Sport England 2017).

- **Austerity**: Delivery of policies is complicated by the twin political drivers of low taxation and balancing budgets, which is reducing funding for public health (section 3.4) and for local initiatives. At least in the short term, finding innovative ways to work within this framework is necessary. While government cannot be expected to fund the myriad initiatives that benefit health – many of which are initiated and run by the voluntary sector – the case does need to be made that it can help to provide the fertile ground in which these can take root.

- **Vested interests**: Big business – such as the food industry, and car or computer-game manufacturers – have powerful vested interests that can conflict with public-health aims. However, while these organisations have helped to create the current obesogenic environment (through marketing techniques, increased portion size etc. – Sonntag et al. 2015), there are also indications that they can make a positive difference. The most notable example is the voluntary reformulation of foods to reduce levels of salt – this has happened gradually (so palates have had time to adjust) and has led to an average fall in UK salt consumption from 8.8g per day in 2005/6 to 8g in 2014 (still well above the recommended maximum of 6g) (PHE 2016a).
- **Social norms**: Social norms around health and health behaviours are complex and changing. Portion sizes of food (and alcohol servings) have increased dramatically (CDC 2006) and have changed perceptions of how much we should eat (Heike 2016). There is concerning evidence that many parents do not now recognise excess weight in their children, because overweight is the 'new normal' in their social group – and this has been linked by researchers to a lack of action being taken to improve diet (Almoosawi et al. 2016). Similarly, the trend for 'vanity sizing' – the increasing trend for clothing manufacturers labelling clothes with sizes smaller than the actual cut of the items – may improve self-esteem (Hoegg et al. 2014) but also lulls individuals into a false sense of security about their weight.

  Tobacco control (see Box, section 2) is a positive example of strong evidence and numerous interventions combining over time to bring about a new social norm (at least among the majority of the population).
- **Awareness and expectations**: Among some socioeconomic groups, expectations of ageing healthily are very low, which is linked with poor health behaviour, such as very sedentary lifestyles (Sarkisian 2005). And there are still groups for whom smoking is the norm – almost a third of men in the poorest quintile are smokers (ONS 2014).

  There is only so far that education can take individuals if their personal circumstances are highly constrained – but improving health literacy can create awareness of the benefits that can be delivered by healthy lifestyles (section 3.5). Health should be aspirational – it is about much more than just getting a pill from the doctor.
- **Language**: The failure to use language appropriate to different audiences is a significant barrier to partnership working. Talking about 'health' to businesses does not speak to the bottom line; instead, focusing on productivity, presenteeism and staff engagement is much more likely to result in action. Similarly, framing healthy lifestyles within the context of improving concentration and academic achievement will encourage headteachers to take wellbeing even more seriously. Finally, 'fun' and 'tasty' – not 'healthy' or 'good for you' – will engage those who are not reached by traditional public-health campaigns.
- **Messaging**: The conclusions of published scientific research can be misconstrued by journalists, resulting in misleading headlines. The failure to translate evidence into clear, actionable forms can also lead to confusion and is disempowering for those trying to understand what to do to live healthy lives.

A culture of health is only possible through a whole-systems approach – tackling all the issues covered in this paper.

- *Example*: Child-obesity initiatives **EPODE and Shape Up Somerville** both began as school-based interventions. However, it was only when researchers broadened the programmes into the whole of the local community – involving parents, teachers, businesses, health workers and others – that they began to show significant results (Borys et al. 2012; Shape Up Somerville 2013).
- *Example*: **Leeds Beckett University** was commissioned in 2015 by Public Health England, the Local Government Association and the Association of Directors of Public Health to lead a three-year programme (working with local government colleagues) to identify ways in which local authorities can foster a whole-systems approach to obesity (Leeds Beckett 2016).

The final section highlights some ways in which positive action can be taken to begin to create this shift.

4. The future – changing the paradigm

What has been noted in obesity is true for health promotion more broadly: 'The single most important intervention is to understand that there is no single most important intervention' (Rutter 2012). However, despite the challenges set out in section 3, there are positive approaches that can begin to facilitate the paradigm shift that is needed to move from a culture of sickness to a culture of health.

Thinking outside silos and across time

- Facilitate cross-sector design of interventions – for example, requiring that research proposals bring together different skill sets (intervention design, evaluation, community knowledge etc.).
- Compare the impact of similar initiatives in different geographical areas and demographics.
- Encourage professional generalists (rather than the traditional, sector-bound specialisations), who can make the links across sectors, rather than remaining within silos.
- Manage expectations: be realistic about what can be achieved, because overpromising could result in the premature end of interventions that could have had a significant impact if they had continued.

What, how and when to evaluate?

- Provide practical assistance with evaluation (for example, though better links between academics and providers) – designing the intervention to capture meaningful metrics, ensuring data-gathering is as light-touch as possible, and helping to make sense of the data and report on it appropriately.
- Develop better methods of societal accounting – which could enable the Social Value Act to be used to greater effect.

Transplanting success

- Identify ways to package the dynamism of individuals – whether they be business leaders, employees, community leaders, GPs, teachers, parents… – so that their enthusiasm can reach beyond their local community.

Where are the resources?

- Identify and unlock community assets – people and underused physical resources – as this can greatly increase the impact and sustainability of any initiative.
- Train professionals – pharmacists/teachers/faith leaders/GPs etc. – to take a more holistic view of health, incorporating it into their existing roles.

Finding out – and understanding – what can be done

- Develop new, accessible ways to share knowledge, including the background research and challenges, and publishing what didn't work as well as what worked (where there have been stumbles along the path to success).[5]
- Improve the translation of evidence into actionable form – bridging the gap between academia and practice (see, for example, Nesta / Alliance for Useful Evidence 2016).
- Develop realistic and practical criteria for the selection of best-practice case studies.
- Work to improve three-way communication and understanding between the people running initiatives, academics and policymakers.
- Work towards expanding the concept of 'health literacy' to include healthy lifestyles.

[5] Researching this paper was also challenging from an evidence perspective. Some concerns and examples that we hoped to include in the paper have been cited to C3 by more than one expert on more than one occasion, but **finding any reliable, respected online source to back up these reliable, respected anecdotal statements has proved impossible**. This illustrates the problem of lack of published evidence facing the whole sector.

- Help public health to coordinate and navigate all the existing assets and initiatives locally – perhaps through a fellowship scheme, embedded within the public-health system.
- Provide assistance to enable community communicators to understand and coordinate local opportunities.

Creating a culture of health

- Sir Nigel Crisp, in the *British Medical Journal*'s Christmas 2015 'call to action', proposed that the government establish a plan to improve policy alignment, preferably instigated by the prime minister and with a cabinet minister as its leader. This could lead the way in 'bring[ing] together the expertise and resources of all parts of society to improve health for all and build a health creating society' (Crisp 2015).
- Work towards a reimagining of health – something attractive, easy and affordable to which everyone can aspire.
- Identify ways to make individual behaviour change easier – for example, by changing the default choice to the healthy choice.
- Change the behaviour of providers of initiatives that impact on health – from reformulation of foods by food companies, to ensuring that headteachers prioritise physical activity in schools.
- Be prepared to put significant effort into reducing health inequalities – the universal, 'culture of health' approach can only deliver so much. Even if (when!) the curve of health begins to shift, do not forget the hardest-to-reach.
- Encourage the seeds of change, wherever they are.

In conclusion, there is a very wide landscape of possible interventions, each of which will work for different people in different places at different stages of their lives. The key is that the suite of interventions forms an environment that raises the profile of health and ultimately changes the culture, shifting the population curve in health across all socioeconomic demographics.

It is time for bravery and for action: 'The UK was one of the pioneers in introducing a universal healthcare system available to the whole population. It could lead again in the development of a health creating society' (Crisp 2015).

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