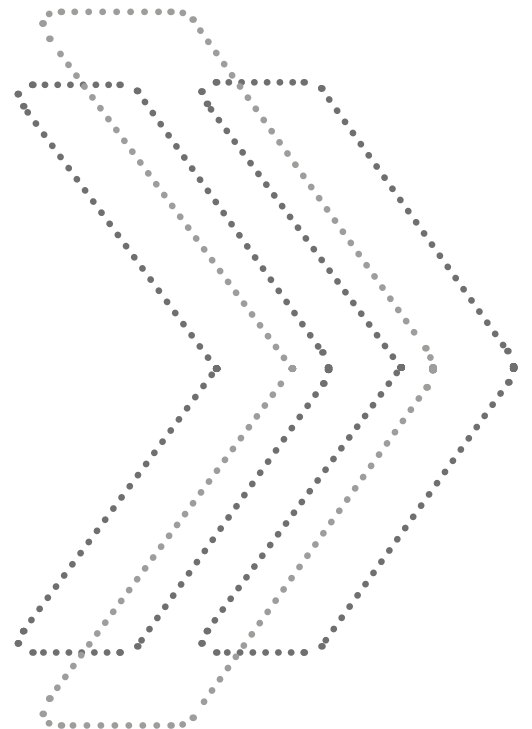

The district council contribution to public health: a time of challenge and opportunity

Authors

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This report was commissioned by the District Councils' Network (DCN) in 2015. Its intention is to contribute to the understanding, assessment and development of the role of district councils in improving the health of their citizens and communities. It focuses on district councils' role in promoting public health through some of their key functions and enabling roles. This report is entirely editorially independent and all views are those of the authors. For a list of acknowledgements please see relevant section.

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Key messages

The challenges and opportunities

- Our health is primarily determined by factors other than health care. District councils are in a good position to influence many of these factors through their key functions and in their wider role supporting communities and influencing other bodies.
- District councils face key challenges, the biggest of which is a fall in central government income. But public health reform and localism also create opportunities for them to increase their contribution to the health of their citizens. Moreover, many of their actions are likely to release savings to the public purse – primarily (but not solely) in the NHS. District councils therefore need to be more integrated in local health and social care policy than many currently are.
- In order to be more influential in improving their citizens' health and helping to deliver the 'radical upgrade in prevention' that the *NHS five year forward view* (Forward View) argues for, district councils need to:
 - ensure that their actions have a positive effect on public health
 - ensure that their actions are cost-effective and, where possible, offer a positive return on investment
 - take on a more enabling role in the health of their citizens and communities
 - innovate in services, and in their delivery.
- District councils not only affect public health through their direct roles and functions but also through their power to influence other bodies such as county councils, the local NHS, and health and wellbeing boards. District councils are not currently part of the mainstream public health policy discourse. This report shows why this is a mistake that urgently needs to be put right.
- District councils need to have better information and be clearer about the cost-effectiveness and return on investment of their actions on public health, and functions that affect it. However, they require a clearer framework on

how to use and interpret such information in order for it to support tough decisions about priorities.

Core functions

- Among their core functions, housing, leisure and green spaces, and environmental health are key areas that affect public health.

Housing

- Access to good-quality housing is critical to good mental and physical health. District councils have an important role to play in delivering this; in 2014/15, 40 per cent of housing completed by district councils was classed as affordable.
- Poor housing conditions are estimated to cost the NHS £2 billion every year and cost the wider economy even more. Yet improving poor homes pays back quickly in reduced costs across the public sector. District councils have a direct role in this, and also through their enforcement powers around the condition of private rented housing.
- District councils' efforts on housing advice and reducing homelessness are also likely to pay back in terms of finance, as well as health. On average, homeless people's health costs are four times those of non-homeless people, costing the NHS an additional £85 million annually.

Leisure and green spaces

- Physical inactivity is one of the biggest health challenges facing us as a nation. A quarter of women and a fifth of men are physically inactive, as are many children. Overall, physical inactivity is responsible for up to one in five premature deaths and is estimated to cost the UK economy more than £7 billion annually. Sport England suggests that the economic value of sport is around £11 billion every year, of which around £1.7 billion is related to avoidable NHS costs.
- District councils provide leisure services and access to green spaces. Innovative reduced-cost schemes and free access to leisure services suggests that up to £23 in value is created for every £1 invested. More broadly, access to green spaces is increasingly recognised to be as important to mental health as physical health, and has been shown to reduce the impact of income inequalities on mental health and wellbeing.
- District councils' wider role in delivering and lobbying for improvements in local natural habitats is also important. Tentative estimates suggest that a

1 per cent fall in sedentary behaviour as a result could produce nearly £2 billion in benefits through reduction in coronary heart disease (CHD), cancers, stroke, depression and anxiety.

Environmental health

- Most aspects of environmental health services are likely to have an impact on health. For example, air and noise pollution are both associated with a number of negative health outcomes, while food-borne diseases can result in hospital visits and time off work.
- Estimates suggest that the health costs arising from man-made pollution could be as high as £20 billion (2005); the UK-wide impact of noise pollution on health is estimated to be in the region of £2 billion to £3 billion per year (2008).
- The district council role in environmental health is potentially vast, covering functions such as monitoring and managing local air quality, noise nuisance, food safety, enforcing the smoking ban, ensuring compliance with occupational health and safety regulations, pest control, and dealing with contaminated land, among others.
- Perhaps because many of these functions are statutory, there is little published evidence on the effectiveness or cost-effectiveness of environmental health interventions. In a period when spending is being cut – particularly, it seems, in environmental health – this kind of evidence is urgently required to better inform difficult decisions about local priorities and to ensure value for money.

Enabling roles

- Beyond delivering the core functions outlined above, we believe that district councils have three enabling roles that underpin good public health. These both affect and shape how other functions are delivered and therefore their impacts on health; in this way, they underpin district councils' support for the development of community wellbeing.

Economic development

- A strong local economy is associated with a wide range of better health outcomes. Communities with higher levels of income deprivation are more likely to have lower life expectancy and poorer health than those with lower levels of income deprivation and for every 10 per cent increase in involuntary unemployment in a community, average life expectancy is one year lower.

- District councils have many levers for sustainable economic development, including the New Homes Bonus and Community Infrastructure Levy, and their role in Local Enterprise Partnerships and City Deals. They also have an important role in delivering the government's Troubled Families programme and benefit systems. They provide a wide range of direct and indirect support to employers, unemployed people, and other vulnerable groups.
- When it is well planned, economic development leads to good-quality stable employment, which helps improve the health of the individual, their family and wider networks. This is true across the life-course, but especially for young people who are less likely to find work later in life and more likely to experience poor long-term health if they are out of the workforce as younger people.
- However, how economic development 'is done' is often just as important to long-term health and wellbeing as the economic development itself. This is where the connection with district councils' other enabling roles – in good planning and community engagement in health – is so critical.

Planning

- Districts are responsible for planning in two-tier areas. Their approach is best viewed as an enabler rather than an intervention, partly because it affects and interacts with most other district functions, and so underpins the health and wellbeing of local communities.
- Planners fulfil a range of functions. These include assessing and processing planning applications, preparing long-term local plans for an area, securing the local infrastructure and investment needed by leveraging section 106 agreements, and applying the Community Infrastructure Levy.
- Evidence suggests that the spatial environment affects people's physical and mental health. Planning can, for example, encourage active commuting through the provision of walkways and cycle lanes; it can ensure an adequate supply of affordable housing and access to green space; it can restrict access to unhealthy food outlets and impose restrictions on traffic; and it can benefit the local economy by creating new local business opportunities and jobs.

Engaging with communities

- District councils have an important role to play in supporting social capital by strengthening social networks and community-centred approaches to health, potentially through enabling greater volunteer involvement in health care support. These approaches have been shown to have strong and direct links to health, being as powerful predictors of mortality in older populations as common lifestyle risks, such as moderate smoking, obesity, and high

cholesterol and blood pressure. They are also important in determining or averting health behaviours as well as resilience to, and recovery from, illness.

- However, the direct return on investment evidence of community-centred approaches to health is still developing, and there is limited evidence on the cost-effectiveness of community engagement interventions (although some reviews have reported cost benefits in some circumstances).

Ten recommendations for future action

As this report shows, district councils can make a huge contribution to the health of their citizens and local communities. While we could develop specific recommendations for each of these topics, we believe that there is a more pressing demand for action on important underpinning factors. Implementing the ten recommendations below will help ensure that the contributions district councils make in towards health improvement are maximised.

- Recommendation 1: The District Councils' Network (DCN) should develop an engagement and partnership strategy to support its members as they navigate the landscape that is emerging in the wake of recent public health reforms.
- Recommendation 2: The DCN should continue to advocate for and support its members in the ongoing negotiations around devolution and its implementation. The devolution agenda provides an ideal opportunity for district councils to ensure their long-term contribution to health improvement remains at the core of this agenda.
- Recommendation 3: Clinical commissioning groups (CCGs) and county councils should include district councils when discussing alignment as one key part of the 'out-of-hospital care' system. District councils are a key partner in improving the relationship between the health and social care system and the community.
- Recommendation 4: The DCN should work with directors of public health and their representative bodies (including the Association of Directors of Public Health and the Faculty of Public Health) and the NHS to better articulate district councils' prevention role in the Forward View (for example, through their role in providing leisure services).
- Recommendation 5: District councils should be more proactive in collating existing evidence on the health economics of their activities.
- Recommendation 6: Public Health England should work with the DCN to systematically develop the evidence on the health economics of district

councils' functions. This could be one of the first tasks under the aegis of Public Health England's new health economics framework.

- Recommendation 7: The DCN should work with Public Health England to skill up and train district council officers in health economics, to secure better decisions in the long term.
- Recommendation 8: The Chartered Institute of Environmental Health should, as a matter of urgency, work with the DCN and other relevant parties to better understand the cost-effectiveness and return on investment of environmental health services.
- Recommendation 9: District councils need to invest in health impact assessment (HIA) to move beyond innovative case studies of processes to show demonstrable improvements in health outcomes.
- Recommendation 10: Over time, the DCN, or designated body, should develop an accessible catalogue of relevant HIAs and make it available to all district councils.

1. Introduction

District councils have a key role to play in keeping us healthy. They have a distinct, local role in service provision, economic development, planning, and helping to shape and support their communities – all key areas that are increasingly recognised as vital components of a true population health system.

This report aims to highlight these roles and help district councils play their full part in improving the health of their communities. They will need to do that within a national and local policy framework and a financial situation that provides not just challenges but also many opportunities, working in partnership with other bodies and local communities themselves.

This is a time of paradox, a time of significant and enabling policy reform in public health coupled with unparalleled funding constraints, for district councils and wider local government. In this context we believe that the role of district councils in public health is ever more important. This report sets out some of the ways district councils are already improving public health and where they need to go further to maximise impact.

This introductory chapter sets out what determines our health, why district councils have an important role to play in shaping it, and the public health system and policy context in which district councils operate.

The rest of this report is structured as follows.

- In section 2 we describe the key areas in which district council functions contribute to public health.
- We provide a quick guide to the high level economics of public health for district councils in section 3.
- In section 4 we present key evidence, including the impact on health, effectiveness and, where available, cost-effectiveness and return on investment, for each of the core functions of housing, green space and leisure, and environmental health services.
- We argue in section 5 that district councils' wider enabling role, in economic development, planning and engaging with their communities has benefits for health.
- We present a number of short case studies of innovation in service delivery in relation to health and wellbeing in section 6.

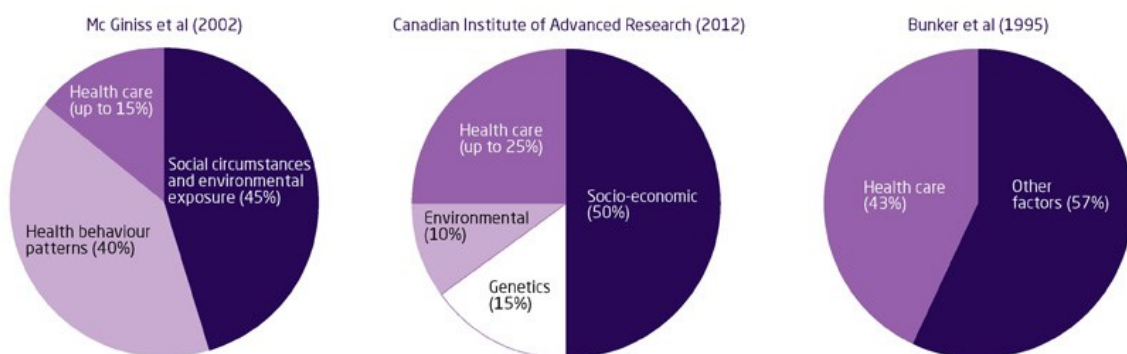
- In the final section we outline a set of high-level recommendations for district councils and other stakeholders to ensure that they take advantage of the opportunities on offer.

It is also important to be clear about what this report does not do. First, it does not cover everything that district councils do. We have agreed with the District Councils' Network (DCN) to focus on some critical areas that have particularly strong links with health. Second, our review of the impact of district council functions and activity is not systematic. We have, however, drawn on a wider literature review of academic and other sources, and our own accumulated knowledge, including our work on the health impacts of local authorities' actions (Buck and Gregory 2013) and The King's Fund's joint work with the Local Government Association, *Making the case for public health interventions* (The King's Fund and Local Government Association 2014). We have also benefited from the advice and knowledge of many stakeholders, including directors of public health. Finally, we have included some examples of innovation in this report. These are meant to be illustrative and helpful, but will not be applicable to all district councils and will need to be built on and reworked to meet the needs of individual areas.

What determines our health?

Our health is determined by a complex interaction between individual characteristics, lifestyle, and the physical, social and economic environment. Although there is always debate, most experts agree that these wider determinants of health and our health behaviours are more important than health care in ensuring a healthy population (Figure 1).

Figure 1 What determines our health?



Source: The King's Fund 2013

Most recently, the Global Burden of Disease study (Newton *et al* 2015) has tracked how the United Kingdom's health has changed over time. As the Chief

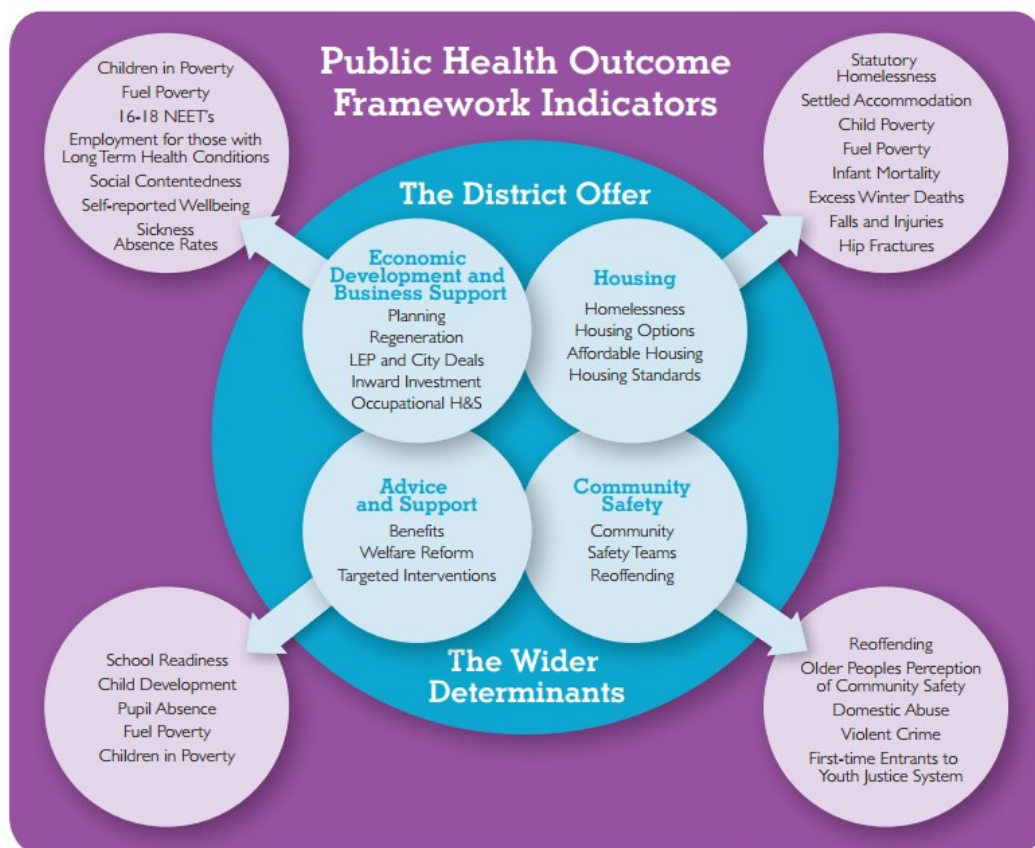
Executive of Public Health England, Duncan Selbie, said, in response to that report:

... risk factors that are potentially modifiable, explain around 40 per cent of total ill health in England. The leading overall risk is now diet, with smoking running a close second. The remaining 60 per cent is a combination of factors, some unknown, some genetic, but many socioeconomic and environmental – this makes economic growth and prosperity a legitimate public health matter as health and wealth are inseparable and is about everyone benefitting from that economic prosperity.

(Selbie 2015)

Clearly then, district councils have a role to play in supporting people to adopt and maintain behaviours that are good for health, and in shaping the wider determinants of health, including economic development. Some of these 'levers' have already been set out by the DCN (Figure 2).

Figure 2 The district council offer to public health



Source: District Councils' Network 2013

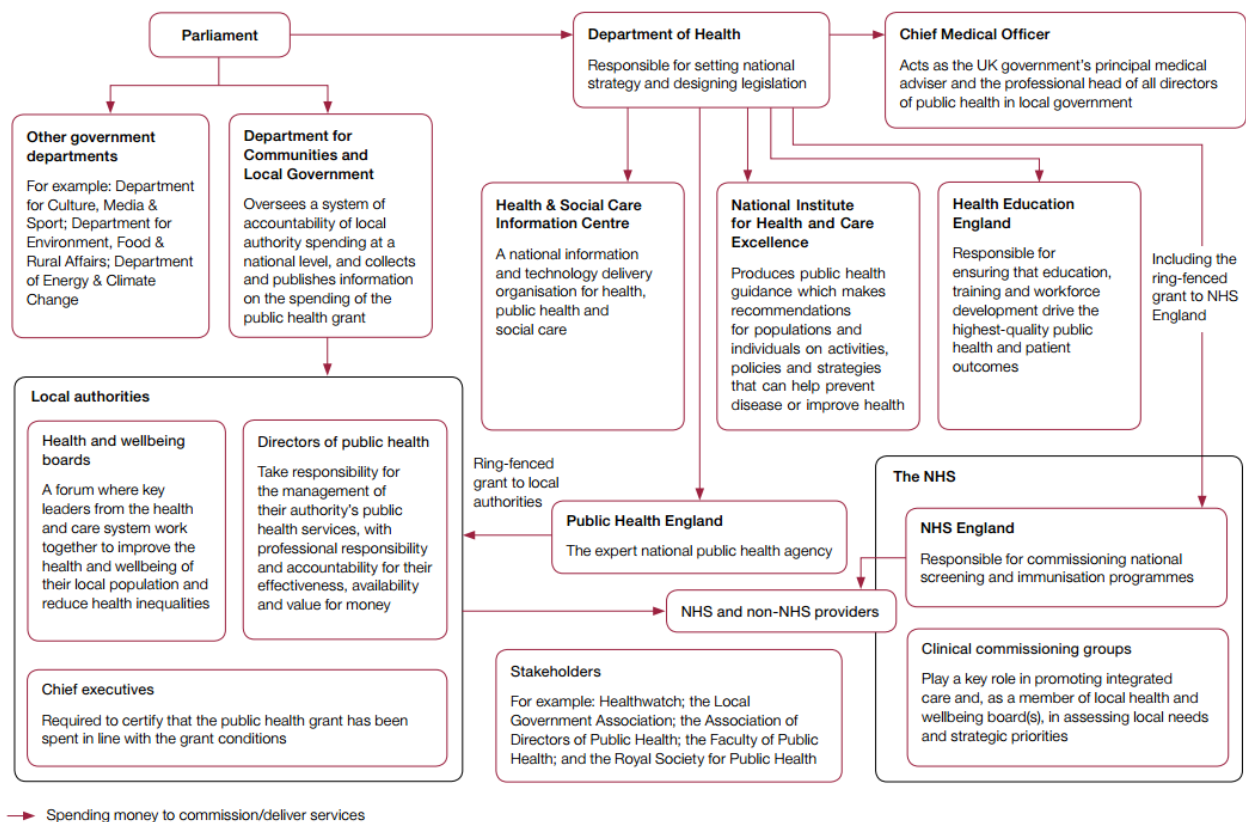
Policy reform

A new public health system

The coalition government's reforms to the public health system were greeted with almost universal approval. At their heart, they reflected the recognition that much of what keeps us healthy lies outside the NHS and social care system and that local government needed stronger responsibility, funding and support to provide relevant services and to more widely support individuals and local communities to be as healthy as they can.

The new structure of the public health system, as viewed by the National Audit Office, is set out in Figure 3.

Figure 3 The public health system from April 2013



Source: Comptroller and Auditor General, National Audit Office 2014

The key changes included:

- the transfer of responsibilities, with a ring-fenced grant, for some public health services to upper-tier local authorities from primary care trusts (PCTs)
- a ring-fenced grant to local authorities for some aspects of public health

- the creation of local health and wellbeing boards at upper-tier level (with a small number of statutory representatives, including the director of public health)
- the creation of Public Health England as a national executive agency of the Department of Health, with key roles in health protection, advising national government and supporting local government in its new role
- a public health outcomes framework (PHOF) to guide local and national action
- from October 2015, additional responsibility (and transfer of funding) for children's health services (covering 0–5 years) to local authorities.

Despite significant issues during the transition period, the new public health system – particularly the role of local authorities – appears to be settling down well (Ipsos Mori 2015; The Association of Directors of Public Health (UK) 2015; The King's Fund 2015; Comptroller and Auditor General, National Audit Office 2014).

What is notable by its absence from Figure 3 – and therefore from the vantage point of national policy – is the consideration of the role of district councils. They have no statutory role on health and wellbeing boards, nor are they obliged to appoint directors of public health.

However, both Baroness Northover and Anne Milton (then public health minister) recognised a role for district councils under the new system:

We expect upper-tier authorities with new public health duties to work with relevant district councils. We believe that health and well-being boards will need to involve district councils.

(House of Lords 2011)

Further, the Minister foresaw 'some devolution of [the public health] budget down to the second tier, without a doubt'.

(House of Commons Health Committee 2011, p 31)

Increasing devolution and localism

Alongside public health reform are wider policy reforms that affect the district council role in public health. Prime among these is the move towards more devolution and localism. The UK government is one of the most centralised in the developed world. For example, the latest data suggests that 75 per cent of tax revenue is raised centrally, putting it 7th highest among 30 Organisation for Economic Co-operation and Development (OECD) countries; while less than 5

per cent is raised through local government, putting it 24th among OECD countries (OECD 2014).

Devolution and localism open up significant opportunities, and some challenges, for local government generally and district councils in particular. The historic devolution agreement between the Chancellor and Greater Manchester, the more recent memorandum of understanding on public health there, and devolution conversations in other parts of the country, offer the prospect of much greater local co-ordination of funding pots, powers and service delivery. The decision to devolve business rates to local areas (Johnstone 2015) will also effect economic development, with consequences for health.

However, there is also much uncertainty and some risks too, including where exactly the local locus of power settles. District councils will need to be armed with cogent arguments and evidence on their role in public health if they are to be fully included in this locus of power and influence as devolution proceeds. We have set out our views on these issues elsewhere (see Fabian Society 2015; Local Government Association 2015a).

Other reforms

How other government reforms are implemented – in areas that fall under district council responsibility and more broadly – will affect the health of local communities.

One of those areas is planning policy and practice. The purpose of the planning system is to contribute to achieving sustainable development, playing a core role in creating 'a high-quality built environment, with accessible local services that reflect the community's needs and support its health, social and cultural well-being' (Department for Communities and Local Government 2012).

Planning underpins – or at least affects or interacts with – most district council functions (see section 5 for more on this). It is therefore best viewed not as an intervention in itself but as an enabler. There are several reforms that are due to be brought before parliament, which could affect district councils' planning and, therefore, public health (Smith 2015).

District councils are also affected by other aspects of reform. Recent examples include proposals in the summer Budget to reduce social housing rents (Kelly 2015), something that is predicted to have a knock-on effect on the building of new homes (District Councils' Network 2015b). They also include recent changes to welfare, which could put pressure on housing and rates of homelessness, and confer an added element of financial risk to councils in relation to non-collection of rent and housing benefit (District Councils' Network 2015a).

Funding constraints

Central and local government have faced unparalleled funding constraints since 2010, and this is set to continue for the foreseeable future. Even the NHS faces historically low growth rates in its overall funding. However, local government has suffered more than most:

Grants from central government to local government (excluding housing benefit grant and those specifically for education, public health, police, and fire and rescue services and the housing benefit grant) have been cut by 36.3% overall (and by 38.7% per person) in real terms between 2009–10 and 2014–15.

(Innes and Tetlow 2015a)

The unparalleled reductions in central government grant, combined with severe restraint on local revenue-raising powers (Council Tax has risen by 3.2 per cent over the same period, a decline of 0.7 per cent per person) have led to severe cutbacks in spending. The uncertainty over future income streams has also led to a greater focus on building up reserves (Chartered Institute of Public Finance and Accountancy 2015); in fact, overall council reserves have increased over the period (Innes and Tetlow 2015a).

Though all local authorities have experienced considerable reductions in their grants from central government in recent years, the relative impact of these reductions varies from place to place, with the most deprived areas – those most reliant on the government grant – hit the hardest (Local Government Association 2014). Future across-the-board cuts to grants would therefore continue this pattern, with the more deprived areas receiving higher overall budget cuts (Innes and Tetlow 2015b). Also, government grants do not take account of population growth, and so similarly, the fastest-growing areas are likely to experience greater funding cuts per capita (Tetlow 2015b).

Finally, the year-to-year or short-term nature of allocation of a number of sources of district council income gives rise to a high degree of uncertainty around budget-setting. This makes long-term, strategic, multi-year investment decisions and robust financial planning difficult and inherently risky (Local Government Association 2015b; District Councils' Network 2014).

The challenges and opportunities for district councils

District councils are faced with a paradox, in that they are experiencing a time of significant and enabling policy reform coupled with unparalleled funding constraints, for them, for local government and other partners more widely. This paradox, and the challenges and opportunities it presents, requires district councils to do three key things.

1. To demonstrate effectiveness and return on investment

Public health intervention and activity is coming under increasing scrutiny – rightly so – both for its effectiveness and for evidence of its cost-effectiveness and return on investment. Similarly, if districts are to attract funds and other forms of support from other bodies, including health and higher tiers of local government, then they need to be able to demonstrate a business case.

This report sets out existing evidence across key functions of district councils, including (where available) return on investment. However, interpreting economic metrics and terms such as cost-effectiveness and return on investment in the sphere of public health is not straightforward. This report sets out guidance for district councils in this area.

2. To lead innovation in services and their delivery

Given the significant cuts in funding, and changes in the nature of the funding model, district councils need to show innovation in service design and delivery. This report includes innovative case studies and partnerships that show how district councils are meeting the challenge to improve health and wellbeing.

3. To strengthen their enabling role in the health of their communities

At their heart, district councils exist to support the health and wellbeing of their communities, whether that be through direct service delivery, economic development and planning, or wider support for their citizens. There is increasing evidence that strong social support networks, reducing isolation, community asset-building and volunteering are all important in enabling citizens and communities to be healthy and resilient.

The remainder of this report highlights how many district councils are already doing much of the above, the underlying evidence that supports this activity and what more district councils need to do to make a bigger contribution to the health of their communities.

2. District councils – key facts and responsibilities

Where they sit in the local government landscape

Two different arrangements of local government are in use in England. Some areas of the country have an arrangement consisting of two tiers, county and district councils; the remainder operate under a single tier of local government, providing all the services in that area.

The two-tier system consists of 27 county councils in the upper tier and 201 district councils (which can also be called borough councils) constituting the lower tier. Councillors for each tier are elected under separate elections and each is responsible for different services in the local area. Parish, community and town councils operate below most districts (and some unitaries), forming the less uniform third tier of local government.

The rest of the country operates under a single-tier arrangement, comprising 36 metropolitan boroughs, 13 inner and 20 outer London boroughs, and 56 unitary authorities.

What they do

County councils are responsible for providing about 80 per cent of services within an area (Local Government Association 2011), and cover the whole county. Districts are smaller and provide a range of local services – 86 of the 137 services considered 'essential' – covering around two-thirds of England by area and 38 per cent of the population (District Councils' Network 2014).

Their core functions in relation to public health are as follows.

- Housing – delivering homelessness prevention services, housing advice, increasing the delivery of affordable housing, adapting homes through the Disabled Facilities Grant, and enforcing minimum standards in the private rented sector.
- Leisure facilities and green spaces – providing and managing these services as well as offering sports development and healthy living programmes.
- Environmental health – for example, conducting food safety inspections, investigating noise nuisance complaints and managing local air quality.

They also fulfil an enabling role within communities in the following areas.

- Economic development – districts help facilitate the local conditions for sustainable economic growth in two tiers and are involved with Local Enterprise Partnerships.
- Planning – districts are responsible for planning policy, and processing and advising on planning applications.
- Enabling communities – districts have critical functions in enabling and supporting their citizens and communities, through their work with troubled families and other initiatives.

These constitute the key district council functions in relation to the wider determinants of health. However, on the ground, the individual programmes, partnerships, projects and additional services offered vary widely from place to place according to local need in the populations they serve.

Districts are also responsible for a much wider set of services – they are the billing authority responsible for administering Council Tax and Council Tax benefit, and for designing support schemes. They are also responsible for waste collection services, processing benefits, tourism and cultural activities, and other support services such as community safety and sheltered housing. Other local government functions like social care, education, public transport, libraries, and fire and rescue services do not fall within their remit, but they often work with and alongside these teams on specific programmes or where services, functions and objectives overlap. They therefore have an important influencing role, as well as in direct service provision.

As discussed in the Introduction, district councils do not have a statutory seat on health and wellbeing boards, and their participation in these boards and in public health more broadly is mixed (Communities and Local Government Committee 2013). This may be partly down to the mismatch of boundaries; some health and wellbeing boards will be covered by multiple districts, and giving membership to a representative from each risks the board becoming vast and unwieldy. To overcome this, innovative solutions have cropped up in different places – for example, designating one district council chief executive in an area as lead for health to co-ordinate work between the districts. But no one solution has brought consensus as to the best way forward.

Where the money comes from

District council funds originate from two main sources: a grant from central government (which currently comprises about 30 per cent of revenue expenditure and has been subject to significant cuts in recent years, and is projected to decline further); and locally generated income, mainly Council Tax, which makes up almost half of revenue (Department for Communities and Local Government 2015b).

Securing additional income is increasingly reliant on the New Homes Bonus and the business rates retention scheme. The former is a grant from central government based on increasing the number of new homes, through building, conversions and bringing empty homes back into use. The latter allows district councils to retain a share of the growth in business rates in their patch. A number of other grants and sources of income are available for specific purposes, including via the Affordable Homes programme and Regional Growth Fund.

This ongoing switch in the source of revenue has important incentive effects on district councils and their actions. While the reduction in central government grant increases uncertainty (and the need to increase reserves to compensate), it also means that district councils have more influence over their revenue and incentivises activities such as house-building and economic development. This activity, and how it is planned and implemented, will have important knock-on effects on health.

3. The economics of public health

The 'economic case', metrics and arguments, when used appropriately, can help improve decision-making by district councils, 'make the case' for a greater focus on public health within districts themselves and to other partners and funders, including central government.

Economic impact metrics and tools (such as cost-effectiveness analysis, cost-benefit analysis and return on investment) are ways of assessing whether a particular action or intervention will result in an overall benefit and its extent, and what the associated costs will be. They are designed to support investment and spending decisions as well as other interventions, such as regulation, but cannot on their own give answers about what action to take.

Economic terminology can also be confusing, easily misinterpreted and used inappropriately. District councils therefore need to be clear and explicit when using economic justifications for actions.

The evidence on the economics of public health

Several recent reviews support the case that public health intervention can be a wise use of resources from an economic perspective.

- The King's Fund set out the case for local authority actions on public health in *Improving the public's health: a resource for local authorities* (Buck and Gregory 2013). This includes the 'business case' for interventions in the early years, healthy schools, work, active and safe travel, warmer and safer homes, access to green space and leisure, strong communities, public protection and regulatory services, and health and spatial planning.
- *Making the case for public health interventions* (The King's Fund and Local Government Association 2014) set out a range of examples where there is evidence that local government public health intervention has positive return on investment, including in areas where district councils have important functions.
- The National Institute for Health and Care Excellence (NICE) has summarised a wide range of its work on the cost-effectiveness of prevention across 26 of its public health topics (Owen *et al* 2012). These range from behavioural interventions such as smoking cessation to walking programmes to improve adult mental health. Of 200 programmes assessed, 30 were cost saving (15 per cent) and 148 (74 per cent) cost less than £20,000 per quality-adjusted life year (QALY) – the threshold below which NICE usually considers interventions cost-effective.

This analysis showed that the public health interventions considered by NICE are generally highly cost-effective according to the NICE threshold. As such they represent good value for money. Given that the cost per QALY for most interventions is extremely low, it seems likely that as a nation we are not investing sufficiently in public health interventions.

(Owen et al 2012, p 39)

- *Understanding the economics of investments in the social determinants of health* (Public Health England and UCL Institute for Health Equity 2014) includes a published review of the economics of investing in the social determinants of health, with an array of examples from across the wider determinants of health in terms of cost of illness, cost-benefit analysis, return on investment and social return on investment.

This publication also sets out some of the challenges in using economic metrics to inform public health decisions, as relevant to district councils as anyone else.

The first principle of understanding, interpreting and using estimates of 'economic impact' is buyer beware. This is not so much because of the deliberate use of misleading approaches, measures or figures but because there are many different ways to express economic impact, measures can overlap, and many different decisions need to be taken on what to include and what to leave out. Being as clear and transparent as possible about this is critical if economic impact measures are to have credibility.

(Public Health England and UCL Institute for Health Equity 2014, p 10)

- Most recently, the World Health Organization (WHO) has summarised the arguments in *The case for investing in public health*, stating that:

... prevention is cost-effective in both the short and longer term. In addition, investing in public health generates cost-effective health outcomes and can contribute to wider sustainability, with economic, social and environmental benefits.

(World Health Organization 2014, p 2)

While not all the interventions reviewed by WHO are directly relevant to district councils, the summary table of its report (Figure 4) helpfully categorises areas where the evidence is strongest and over what time period. Interventions in green are those where there is evidence for return on investment; those in red are where there is evidence for cost-effectiveness; those in black bold are 'WHO best-buy' interventions, 'win-win-wins' – areas where these have been shown to be cost-effective, have positive return on

investment within five years, and contribute to wider aspects of sustainability including economic, social and environmental benefits.

Figure 4 Snapshot of WHO summary of public health interventions with positive return on investment and cost-effectiveness over time

Intervention focus	Quick wins (0–5 years)	Longer-term gains (over 5 years)
Environmental determinants	<ul style="list-style-type: none"> • Road traffic injury prevention^a • Active transport^a • Safe green spaces^a • Heat wave plan^a 	<ul style="list-style-type: none"> • Removal of lead and mercury • Chemical regulation
Social determinants	<ul style="list-style-type: none"> • Healthy employment programmes • Insulating homes^a • Housing ventilation for asthma • Community falls prevention 	–
Resilience	<ul style="list-style-type: none"> • Violence prevention legislation • Prevention of postnatal depression • Family support projects • Social emotional learning • Bullying prevention • Mental health in the workplace • Psychosocial groups for older people • Parenting programmes • Depression prevention 	<ul style="list-style-type: none"> • Preschool programmes • Prevention of conduct disorder • Multisystemic therapy for juvenile offenders • Detection of and care for the victims of intimate partner violence
Behaviour	<ul style="list-style-type: none"> • Lifestyle diabetes prevention programme^a • Restricting alcohol availability • Community-based youth tobacco control intervention • Workplace obesity intervention • Tobacco legislation, taxation and control (WHO very cost-effective) • Alcohol legislation, taxation and control (WHO very cost-effective) • Nutrition – reducing salt; replacing trans fatty acids; raising public awareness of healthy diets^a (WHO very cost-effective) • Physical activity mass media awareness (WHO very cost-effective) 	<ul style="list-style-type: none"> • Alcohol minimum price • Counselling to smokers (WHO quite cost-effective) • Alcohol brief interventions and alcohol driving breath tests (WHO quite cost-effective)
Vaccination	<ul style="list-style-type: none"> • For children: norovirus, pneumococcus, rotavirus, influenza 	<ul style="list-style-type: none"> • Influenza, pneumococcus • Measles, mumps and rubella; diphtheria, pertussis and tetanus • Human papillomavirus; hepatitis B; meningitis C
Screening	<ul style="list-style-type: none"> • Screening for abdominal aortic aneurysm • Screening for depression in diabetes 	<ul style="list-style-type: none"> • Screening for diabetes and impaired glucose tolerance • Vascular disease health checks

Source: World Health Organization 2014

- There have also been several reviews in specific policy areas of relevance to district councils that have included the economics of intervention – for example, in mental health (Knapp *et al* 2011) and in community interventions (South 2015).

Making the business case for public health: using health economic information in district council decision-making

At the strategic level, there is a strong and growing body of health economics evidence that supports the case for action in public health. But generating, interpreting and using health economics information is not straightforward. There are different sorts of measures, as shown above, and each has its strengths and weaknesses for different purposes.

Table 1 describes some of the economic metrics that can be useful for district councils, along with their main pros and cons.

Table 1 Health economics metrics and their strengths and weaknesses

Metric	Description	Pros	Cons
The economic valuation of health	Monetary valuation of health gain. For example, the value of a year spent in perfect health (known as a quality-adjusted life year, or a QALY) is currently considered to lie between £20,000 and £30,000 given NICE's decisions.	Allows 'health' to be included in return on investment (RoI) calculations, and to be traded off against other objectives measured in monetary terms.	Disputes over valuation. Some consider this unethical, and/or ageist given that, by definition, older people will generally have fewer QALYs left 'to save'.
Cost of illness	The cost burden of illness to society for a specific disease, illness or patient group.	Allows a sense of prioritisation on where to focus efforts given limited resources.	On its own gives no information on whether it is possible, or cost-effective to act. Often people have multiple conditions; looking at illnesses separately can lead to over-counting.
Cost of intervention	How much it costs to intervene to solve or address a particular health problem.	The most basic measure – the direct call on budget – allowing an assessment of relative scale of resources required to act.	On its own gives no information on whether it is right to act, in terms of what the intervention buys in terms of outcomes such as QALYs, or other measures of health and wellbeing or process indicators (eg, smoking rates).
Cost-benefit analysis and return on investment (RoI)	Attempts to discern whether the costs of intervention are justified by the potential benefits. Expressed in different ways including RoI, 'for every £1 put in £x is returned in benefits'.	Allows a balanced assessment of efficient resource use in delivering goals, and supports decision of <i>whether</i> to intervene. Can be prospective (what is likely to happen) and retrospective (what did happen). Can include health and wider impacts in the same calculation.	The devil is in the detail. In particular, what is included in the £x in benefits needs 'unpacking' and can be misleading. Does not include equity or distributional impacts.
Social return on investment (SROI)	A form of cost-benefit analysis. Usually includes a detailed look at where or to whom the benefits and costs	Is often 'unpacked' in presentation, and allows a clearer view of where costs and benefits fall. Is useful in	The devil is in the detail. A lack of clear guidelines on what to include in the benefit side often means

Metric	Description	Pros	Cons
	fall, not simply the overall scale of them.	helping to understand the equity implications.	that SROIs are inflated and hard to compare across programmes.
Cost-effectiveness analysis	Given an objective, what is the most efficient way to reach it? Usually '£ per process or health outcome' (£ per smoking quitter, or £ per QALY, for example).	Once a decision has been taken to intervene, helps guide what the <i>best way to implement</i> is in order to maximise the impact.	Cannot include health and wider impacts (or more than one health impact) in the same calculation. Does not include equity or distributional impacts. If using QALYs, subject to criticism under economic valuation of health.

Source: based on Public Health England and UCL Institute of Health Equity (2014)

Supporting business cases and other decisions

Clearly, each metric has strengths and weaknesses. While overall information on cost of illness and cost of intervention is broadly helpful, it should not be relied on in isolation to guide choices. Cost-benefit analysis, return on investment, social return on investment and cost-effectiveness metrics attempt to relate the cost of intervention to the benefits likely to flow from it in various ways, and are therefore more useful.

The Public Health England and UCL Institute of Health Equity (2014) publication is helpful in guiding district councils on which economic metric (or combination of metrics) to use in which circumstances, to best support and guide their work on public health.¹ In particular, district councils will be faced with two related but separate questions. First, is there a business case to intervene? And if so, which option should be chosen?

Three measures in Table 1 are useful for understanding whether there is a business case for public health: the burden of illness, the cost of illness, and cost-benefit analysis.

The first two help to make the case that there is a problem of sufficient impact to potentially address. Unfortunately though, some problems – no matter their scale – are either not amenable to alleviation or the costs may be too high to do so. Cost-benefit analysis takes this into account, and relates the benefits of doing something with the costs in a structured way. A good cost-benefit analysis will also include an assessment of who the costs and benefits impact – in other words, the equity effects of a course of action.

¹ For more on this also see <https://publichealthmatters.blog.gov.uk/2014/05/06/making-the-economic-case-for-public-health/>

Importantly, many district council actions that affect public health are the result of functions undertaken primarily for reasons other than health improvement. This means that many costs 'will have been spent anyway', and while there is a challenge for district councils to assess the nature and extent of the additional health effects, it does mean that the health benefits themselves are often a bonus on top of the prime objective and therefore very good value for money. As the Public Health England and UCL guide states:

...the vast majority of expenditure and costs are already committed in order to deliver non-health core objectives. From this perspective, improvements in health outcomes achieved through proven interventions will come at very little, if any additional cost.

(Public Health England and UCL Institute for Health Equity 2014, p 16)

Given a decision to proceed, there are usually many ways of intervening to address a problem. Cost-effectiveness analysis is the most common tool for supporting decisions among competing options, although some cost-benefit analyses can also be used for this. Again, this should be supplemented by information on the probable equity impacts of competing options.

The devil is in the detail: paying attention to 'what's in the metrics'

There is, then, strong general evidence for the economic case for district councils to do more on public health, and different ways (and associated metrics) to help them evaluate and prioritise what to do. But district councils need to pay attention to the detail in generating their own information on the economic case, and in using and translating information from other sources. The devil really is in the detail. This is particularly so in interpreting 'return on investment' calculations. In particular, there is no hard and fixed rule on what is included in the benefits side of such calculations.

There is a useful example of this in The King's Fund and Local Government Association (2014) work on the return on investment for public health interventions. It presented information on the return on investment of getting one more person to walk or cycle (Figure 5). The cycling return on investment was £539. But this begs several questions. How much does it cost to do so? What is in the £539? And does this differ depending on where you are?

Figure 5 The return on investment from walking and cycling



Source: The King's Fund and Local Government Association 2014

To answer that question means going back to the source. First, this reveals that there is no specific figure mentioned for the cost of attaining this goal, so that relies on district councils' own knowledge or other studies. Second, most of the benefit is derived from the value of the health gain associated with cycling (about 70 per cent); around 5 per cent is due to lower NHS costs, while 8 per cent is due to higher productivity and other gains from reduced congestion and pollution. Third, the gains differ depending on whether the additional cyclist is in a rural or urban area. So the return on investment in Figure 5 is not 'wrong' but it is nuanced, and much of it comes through the valuation of health gains (see Table 1).

The lesson for district councils is to pay attention to the details and sources in economic metrics and tools, particularly return on investment claims, to ensure that they are fully understood and relevant to the issue being addressed.

Health economics information should not be used in isolation

While health economic metrics are very helpful in making and supporting priorities and decisions on public health, they are no substitute for decision-making. They all have strengths and weaknesses, as Table 1 has shown.

In particular, health economic measures are generally poor² at taking into account distributional effects, equity and inequalities. They are focused primarily on the overall level or scale of costs and benefits, rather than how those costs and benefits affect different groups or members of the community, such as the wealthy or poor, or those living in one part of an area versus another. This is an important limitation. It is therefore critical that evidence on inequalities, or the effect of an intervention for different social groups, is considered alongside economic measures when taking decisions on public health. The social return on investment approach is a helpful way of thinking about the wide range of social impacts that could arise from an intervention.

Interpreting the rest of this report

In the sections that follow, where we have included economics information we have included the source, which should always be checked for the full assumptions behind the information presented.

District councils should refer to the guide produced by Public Health England and the Institute for Health Equity, as well as the further sources it refers to for guidance on interpreting health economic data. Ideally, councils should also contact a health economist to support their work when considering the health economics implications of their activities on public health. There are many local academic institutions that can help district councils. They are listed on the academic health economists' blog (@ahe) website (<http://aheblog.com/resources/>) and also on the Health Economist Study Groups (HESG) website (<http://hesg.org.uk/>)

² There are some promising developments in health economics that are addressing this issue but they are in their early stages and very 'data hungry'. At present they are of doubtful practical use for district councils. See www.york.ac.uk/che/research/equity/d-c-e-a/ for example.

4. Health impact and return on investment of district councils' key functions

This chapter assesses the health impact that district councils can have when undertaking some of their core functions and gives examples of the economics of doing so. For housing, leisure services and green space, and environmental health services, it sets out what district councils are already doing, the evidence of the impacts on health, and some examples of return on investment and other economic metrics. This chapter draws on many sources, including earlier work by The King's Fund on the role of local authorities in improving the population's health (Buck and Gregory 2013).

Housing

A number of distinct housing-related functions fall within the remit of district councils. These can be loosely summarised in terms of: homelessness prevention, housing advice, increasing the delivery of affordable housing, enforcing minimum standards in the private rented sector, and assessing individuals for Disabled Facilities Grants, which fund home adaptations.

What district councils do in this area

- (i) Homelessness prevention

Under the Housing Act 1996, district councils are responsible for commissioning homelessness prevention services. They also seek to manage demand for social housing, which is key to reducing homelessness – for example, through better engagement and use of the private sector, and using the Homeless (Suitability of Accommodation) (England) Order 2012 to ensure that the properties being used do not have an adverse effect on health.

The National Practitioner Support Service (NPSS), funded by the Department of Communities and Local Government and hosted by Winchester City Council, supports local authorities to deliver the 'gold standard' in early intervention and prevention services (see Box below).

The 'gold standard' challenge in early intervention and homelessness prevention services

1. To adopt a corporate commitment to prevent homelessness, which has buy-in across all local authority services
2. To actively work in partnership with voluntary sector and other local partners to address support, education, employment and training needs
3. To offer a Housing Options prevention service to all clients, including written advice
4. To adopt a No Second Night Out model or an effective local alternative

5. To have housing pathways agreed or in development with each key partner and client group, which include appropriate accommodation and support
6. To develop a suitable private rented sector offer for all client groups, including advice and support to client and landlord
7. To actively engage in preventing mortgage repossessions, including through the Mortgage Rescue Scheme
8. To have a homelessness strategy that sets out a proactive approach to preventing homelessness, reviewed annually to be responsive to emerging needs
9. Not to place any young person aged 16 or 17 in bed and breakfast accommodation
10. Not to place any families in bed and breakfast accommodation unless in an emergency and for no longer than six weeks

Source: <http://home.practitionersupport.org/>

(ii) Affordable housing

In 2012/13, an average of 41 per cent of all homes built in district council areas were classed as 'affordable' (District Councils' Network 2014). As well as increasing delivery of affordable homes through new builds – for example, by leveraging section 106 agreements (see chapter 5) and the New Homes Bonus – their role also covers taking action on empty properties, regeneration activity and collaboration with registered social landlords.

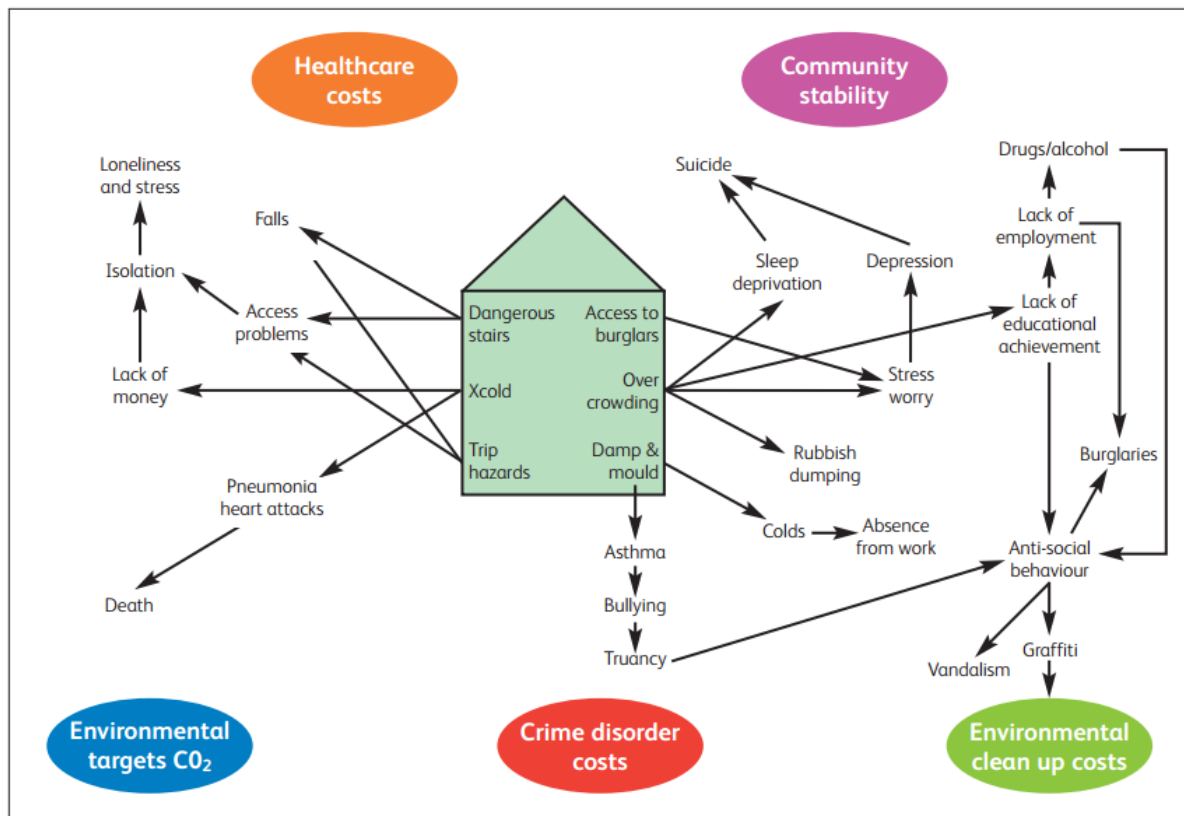
(iii) Enforcement of minimum standards in the private rented sector

Under the Housing Act 2004, district councils have a set of duties to provide services with a view to controlling, minimising and preventing poor housing conditions. This includes a legal obligation to inspect properties on request, license Houses in Multiple Occupation (HMOs) to ensure that they are safe to inhabit, and provide guidance on how to remedy hazards such as damp and mould or fall or trip hazards (including in private sector housing) that could have negative connotations for health (see Figure 6). Where necessary (that is, where appropriate corrective action is not taken), the council can take enforcement measures against a landlord.

This is an increasingly important role, given that private sector renting doubled between 1980 and 2012 (ONS Digital 2015) and with recent data showing that 19 per cent (4.4 million) of English households were privately rented in 2012–13 (Department for Communities and Local Government 2015a). Almost a third (30 per cent) of these failed to meet the decent homes standard (compared to 15 per cent and 19 per cent in social rented and owner occupied homes respectively). Most fell short on grounds of safety, but also because of poor thermal comfort and disrepair (Department for Communities and Local

Government 2015a). Privately rented properties are also involved in a higher number of carbon monoxide incidents (Gas Safety Trust 2014), fewer have central heating, double glazing or loft or cavity wall insulation, and they are more likely to have older boilers that are less energy efficient (Department for Communities and Local Government 2015a).

Figure 6 The relationship between housing hazards and health



Source: Chartered Institute of Environmental Health and Building Research Establishment 2008

(iv) Adapting people's homes

District councils are responsible for assessing individuals for the Disabled Facilities Grant, which can lead to funding for simple adaptations that enable people to stay in their homes, living independently for as long as possible. Housing officers can also provide advice on access to other funding streams or means-tested loans for similar needs.

A number of district councils also offer 'handyperson' services, undertaking small repairs and minor adaptations such as grab rails, temporary ramps and key safes, which can reduce the risk of falls, promote independence and reduce hospital stays, as well as carrying out energy efficiency checks and home security measures.

The impact this can have on health

(i) Homelessness

Being homeless is associated with an array of poor physical and mental health outcomes (UCL Institute of Health Equity 2012); 73 per cent of homeless people report having a physical health problem; 45 per cent have a diagnosed mental health problem, compared to 25 per cent in the general population (Homeless Link 2014). Rates of communicable disease (particularly tuberculosis) are higher and drug use, poor nutrition, alcohol problems and smoking are all more common among homeless people than the general population (Homeless Link 2014; Burki 2010). Rough sleepers are 35 times more likely to commit suicide (Burki 2010), and being homeless is an independent risk factor for mortality (Morrison 2009), with the age of death in these populations averaging just 40–44 years (Department of Health Office of the Chief Analyst 2010).

Estimates suggest that the use of acute hospital services for people sleeping rough, or in a hostel, squat or on a friend's floor, is around four times higher, costing at least £85 million per year (Department of Health Office of the Chief Analyst 2010).

(ii) Affordable housing

Housing costs are the most important factor in the relationship between housing and poverty. An additional 3.1 million people in the United Kingdom experience poverty when the impact of these costs on income are taken into account (Tunstall *et al* 2013) and poverty is highly correlated with poor health (Buck and Jabbar 2014). Thus, a supply of affordable housing is vital, with recent estimates suggesting that around 80,000 houses a year are needed in the social sector in England to meet demand between 2011 and 2031 (Holmans 2013) or an additional 230,000 homes a year overall to meet demand (Local Government Association 2015b).

Building homes also has wider economic benefits; scaling up building to 200,000 homes before the end of this parliament could generate more than 230,000 new jobs and add 1.2 per cent to gross domestic product (GDP) (The Lyons Housing Review 2014).

(iii) Minimum housing standards

The physical characteristics and social environment of houses can have a profound influence on physical and mental health and this is particularly apparent in houses in multiple occupation, where enforcement of minimum housing standards and good property management are crucial (Barratt *et al* 2015).

The Building Research Establishment (BRE) estimates that the first year treatment costs to the NHS of leaving people in the poorest 15 per cent of housing stock in England are around £1.4 billion per year due to falls, dampness, pests, water supply, sanitation, excess cold and overcrowding (see Box below), among other hazards. Expanding this to all homes with significant hazards increases the cost estimate to £2 billion a year (Nicol *et al* 2015).

(iv) Home adaptations

Almost half of all accidents (45 per cent) occur in the home. Environmental hazards are one risk factor for falls among older people – the leading cause of injury-related admission to hospital for this group and where 60 per cent of the associated costs are borne by the NHS (Scuffham *et al* 2003). The hospital cost of a hip fracture is more than £16,000 in the first two years (Leal *et al* 2015) – many times more expensive than the cost of fitting major or minor housing adaptations. These adaptations can also help tackle fuel poverty and overcrowding through installation of measures to improve insulation (see Box below).

The impact of fuel poverty, cold homes and overcrowded housing

Fuel poverty – the inability to afford to heat a house – is driven by wages, energy prices and the efficiency (or inefficiency) of housing stock, with 60 per cent of those in fuel poverty living in inefficient properties (Howard 2015). Recent figures suggest that 2.35 million households in England (slightly more than 10 per cent of all households) were in fuel poverty in 2013, with the aggregate fuel poverty gap standing at £877 million (Department of Energy and Climate Change 2015). Certain groups – including those in the private rented sector, lone parents and rural and unemployed households – are more likely to be living in fuel poverty (Howard 2015).

These households often end up under-heating their homes, thus living in ‘cold homes’, which has negative connotations for a range of physical and mental health outcomes, as well as for children’s educational attainment and development, and resilience (Marmot Review Team 2011). The rise in mortality associated with falling temperatures is greatest for those in the coldest homes (Wilkinson *et al* 2001). Age UK calculates the annual cost of cold homes to the NHS in England to be £1.36 billion, with substantial costs to social care also likely (Age UK 2012).

Estimates from the latest Housing Survey by the Department for Communities and Local Government suggest that more than 660,000 households in England live in overcrowded conditions, with higher rates in social and privately rented compared to owner-occupied properties (Department for Communities and Local Government 2015b). Overcrowding negatively affects the physical health of adults and children alike, and some research points to a relationship whereby overcrowding in childhood has a negative impact on adult health (Office of the Deputy Prime Minister 2004).

Examples of the possible return on investment

Homeless Link highlights that there is little evidence about the cost-effectiveness of homelessness prevention, with some suggesting this may be because the outcome (ie, not becoming homeless) is immeasurable. Studies that do look at the economics have tended to focus on 'spend-to-save' arguments rather than carrying out robust analysis (Homeless Link 2015). They include two examples of practical interventions that give some indication of cost-effectiveness.

First, Balmer and Pleasance (2012) looked at holistic support and advice services for young people, which included giving help with housing, debt, mental health services and referrals, and welfare benefits. Of 188 clients surveyed, 70 per cent felt that the support they had received had resulted in improvements in terms of less stress and better health; 55 per cent that had initially reported housing or homelessness problems said their housing situation had seen improvements as a result. Tentative estimates suggested that youth advice was cost-effective on the basis of improvements in either mental health or housing situation.

Second, Family Intervention Projects, superseded by the Troubled Families programme, provided support for people in their homes, with one of the aims being to prevent families from becoming homeless. The number of families with housing enforcement actions – one of the indicators used to measure success – was 59 per cent at the start of the intervention, falling to 26 per cent at the end (Lloyd *et al* 2011). The FIP intervention was also associated with sustained health gains, and though no work has been carried out to assess its cost-effectiveness, there are estimates as to the value for money provided by similar schemes.

There is more evidence about the cost-effectiveness and return on investment in housing adaptation, warmth and safety. Guertler and Preston (2009) estimated that raising all properties to the equivalent of Energy Performance Certificate band B could lift 83 per cent of English households out of fuel poverty, with savings through reduced NHS costs and energy expenditure and additional benefits to the climate, to the health and quality of life of those currently affected, and to the local labour market (Marmot Review Team 2011).

Figures calculated by Inside Housing (2010) using the Housing Health and Safety Rating System Costs Calculator (Chartered Institute of Environmental Health and Buildings Research Establishment 2008) suggest that:

- every £1 spent adapting 100,000 homes where a serious fall is likely to otherwise occur could save the NHS £69.37 over 10 years
- every £1 spent improving 100,000 homes where residents are otherwise likely to require treatment due to issues of excess cold could save the NHS £34.19 over 10 years

- every £1 spent dealing with overcrowding in 100,000 homes that is otherwise likely to lead to health problems could save the NHS £6.71 over 10 years.

The Hills Review (2012) concluded that tackling the thermal efficiency of homes (rather than the other two drivers) was the most cost-effective approach to reducing fuel poverty, and it is also one of the most sustainable ways (Marmot Review Team 2011). A recent Cochrane review concluded that investments to improve the thermal comfort of homes can lead to health improvements, especially when targeted at those most in need. There is also evidence to suggest that this might reduce school and work absences (Thomson *et al* 2013).

More broadly, there is good evidence from the health impact assessment of Birmingham City Council's housing programmes that improving the standards of homes pays back quickly. For a total outlay of £12 million, overall gains of £24 million a year were achieved. The quickest wins were from improvements related to excess cold and reducing falls (Birmingham City Council Housing Strategy and Partnerships Team 2011).

Finally, there is also emerging evidence for the economic value of handy person services, as follows.

- A national evaluation of handy person services reported that the benefits outweigh the costs by around 13 per cent, with social care costs being the biggest costs avoided. The report described these services as delivering 'a relatively high volume of preventive activity at a relatively low cost' (Croucher *et al* 2012, p 3).
- A similar scheme in Wales, the Rapid Response Adaptations Programme (RRAP), yielded a saving of £7.50 for every £1 invested. However, this estimate does not take staff and other costs into account (Institute of Public Care 2011).

Leisure services and green spaces

What district councils do in this area

District councils' main responsibility lies in providing leisure centres (including sports centres, swimming pools, athletic tracks and gyms) and green spaces (including parks, playgrounds, allotments, walkways and woodlands) as legislated in the Local Government (Miscellaneous Provisions) Act 1976. The main aims are to increase physical activity and promote wellbeing in the local populations they serve. A number of districts also offer sports development and weight-loss programmes, referral schemes and targeted programmes to tackle physical inactivity.

The impact this can have on health

The latest figures suggest that 26 per cent of women and 19 per cent of men are 'inactive' (Lifestyle statistics team, Health and Social Care Information Centre 2014), while Lee *et al* (2012) estimate that inactivity was responsible for nearly 17 per cent of premature mortality in the United Kingdom in 2008 (range 13.6 to 20.3). The direct cost of physical inactivity to the NHS has been estimated at £1.06 billion (2006/07 prices) across the United Kingdom, based on costs associated with five conditions: coronary heart disease, stroke, diabetes, colorectal cancer and breast cancer. This figure does not include other possible costs such as those associated with osteoporosis or falls (Allender *et al* 2007). A recent report from Public Health England (2014) estimates the total UK-wide cost of inactivity as £7.4 billion a year.

A lack of physical activity is also associated with an increased risk of being overweight or obese, which two-thirds of adults and a third of 11–15 year-olds in England currently are. Being obese confers significant harm to adults and children in terms of health, employment and life expectancy. Severe obesity reduces life expectancy by around 8–10 years – the same reduction as a lifetime of smoking. Obese and overweight individuals also use more health and social care services; costs to the wider economy have been estimated at £27 billion, encompassing costs to the NHS, social care and days off due to sickness (Public Health England 2015).

Taking part in regular sport confers a range of health benefits, which can help prevent physical and mental health problems and lead to reduced health care costs. There is also evidence to suggest that sport can reduce crime and anti-social behaviour, such as drink-driving, taking drugs, recidivism and shoplifting, particularly among young men, as well as contributing to social capital and connectedness within communities (Taylor *et al* 2015).

As well as promoting physical activity (Hunter *et al* 2015; Mytton *et al* 2012; Natural England 2011; Coombes *et al* 2010; Ellaway *et al* 2005), access to green

space may also confer a range of other benefits (Balfour and Allen 2014; Gore *et al* 2013; Wentworth 2013; Natural England and Faculty of Public Health 2010), including having a positive effect on mental health (Rolls and Sunderland 2014; White *et al* 2013; Bird 2007), improving air, water and noise quality (Public Health England and NHS England 2015; Penny 2014) and a number of other social, environmental and economic benefits (Penny 2014; Drayson and Newey 2013; Saraev 2012; Woolley *et al* 2004).

In summary, there is increasingly strong evidence that exposure to green spaces is important for long-term health. A study in the Netherlands showed that every 10 per cent increase in exposure to green spaces translated into a reduction of five years in age in terms of expected health problems (Groenewegen *et al* 2003) with similar benefits found by studies in Canada (Villeneuve *et al* 2012) and Japan (Takano *et al* 2002).

Moreover, it seems that living in areas with green spaces is associated with significantly less income-related health inequality, weakening the effect of deprivation on health (Mitchell and Popham 2008). In greener areas, all-cause mortality rates are only 43 per cent higher for deprived groups, compared to 93 per cent higher in less green areas.

Examples of the possible return on investment

There are a range of studies that have looked at the economics of sport and leisure activity, its value for money, impact on the demand for health, and costs of health and other public services.

- Quantifying the economic value of doing sport between 30 and 49 years of age (compared with not doing sport), Marsh *et al* (2010) estimate that the typical lifetime cost saving per person through health care costs saved ranges from £1,750 (badminton) to £6,900 (health and fitness). Calculations as to the total economic lifetime value – which includes averted health care costs and improvements in health-related quality of life – vary between £11,400 per person (badminton) and £45,800 (health and fitness). This variation arises due to differing intensity levels and the length and frequency with which the sport is undertaken.
- Sport England has estimated the economic value of sport in terms of its health benefits as £11.2 billion per year (2011-12), £1.7 billion of which is thought to be via savings to health care-associated costs. There are wider benefits too; for example, for society (through the 3.2 million adults contributing to volunteering in sport) and for the economy (through the employment opportunities created) (Sport England 2013).
- A cost-benefit analysis of Birmingham's Be Active programme, which offered residents free use of leisure facilities during working hours and weekends,

suggests that up to £21 is recouped for every £1 invested, mainly through health-related quality of life gains, with a smaller amount for health care costs saved. The cost per QALY was estimated as £1,164 – far below the NICE threshold (Marsh *et al* 2011).

- An evaluation of the Free Swimming programme, launched across England in 2008 to increase participation in swimming, reported increases in the level of physical activity among participants across the social gradient (Audrey *et al* 2012), with 114,000 additional swimmers under the age of 16 and an extra 23,000 over the age of 60. The benefit-to-cost ratio for those over 60 was estimated to be in the region of 0.53:1, and 0.82:1 for those under 16 (PricewaterhouseCoopers LLP 2010).

There are a growing number of studies of the health economics of access to green spaces.

- Green gyms are volunteer-led nature conservation groups that in many cases receive support from, are run by or were set up by the local district council. A national evaluation of green gyms in 2008 found that people joining with the poorest initial mental or physical health were three times and nine times respectively more likely to be the ones improving the most (Yerrell 2008). A cost-benefit analysis estimated that every £1 invested could save £2.55 through treating physical inactivity-related illnesses. Cost-effectiveness analysis estimated that 132 QALYs were delivered at a rate of £4,031 per QALY (on the basis of one green gym session per week) (cited in Balfour and Allen 2014).
- Mourato *et al* (2010), attempting to calculate the value of any health benefits associated with increasing certain types of land cover or increasing the number of people using green spaces, tentatively proposed the following: local broadleaved/mixed woodland land cover (+1 per cent within 1km of the home): £8–£27 per person per year through a change in health utility score. Use of non-countryside green space (monthly or more): £112–£377 per person per year through improvements in health utility score, emotional wellbeing and physical functioning.

In addition to their role in providing leisure centres and other services, district councils can help co-ordinate access to physical activity programmes, such as exercise prescription and walking programmes, for their communities.

- A study by Pringle *et al* (2010) assessed the value of seven community-based interventions, including exercise classes, exercise referrals (for patients with health problems), campaigns and outdoor activity between 2004 and 2006. It found that 38 per cent of people who completed an intervention improved by one physical activity category and 60 per cent of people classed as sedentary

or lightly active at the beginning reached the guideline level of moderate activity after completing an intervention. The average costs varied both within and between the different interventions, though the savings per participant exceeded the costs of implementation in all interventions. The cost per QALY also varied, though all fell below the £20,000 threshold that NICE usually considers as cost-effective. Future NHS savings per participant ranged from £769 for exercise classes to £4,891 for exercise referrals.

- The Walking the Way to Health Initiative (WHI), launched in 2009 with investment from the Department of Health and Natural England, aimed to get more people walking. It helped create more than 500 local health walk schemes (many run by district councils). An assessment of the health value and economic benefits of the expanded WHI programme over three years gave illustrative estimates (based on assumptive models due to the limited availability of data) to suggest that 2,817 QALYs had been delivered at a cost per QALY of £4,008.98, and a cost-benefit ratio of 1:7.18 through life-cost savings (Natural England 2009).
- Some district councils support weekly parkrun events in their local area, either through funding and help with start-up costs or in kind. These have been shown to attract non-runners as well as women, older adults and overweight people – those that tend to have lower levels of physical activity (Stevenson and Hickson 2014). A study looking at the cost-effectiveness of this network of free 5km runs is currently under way.

Many of the concepts and issues described here are as relevant to environmental health and planning (see chapters 4 and 5) as they are to leisure facilities and green space. The importance of designing healthy, active places and ensuring that air pollution levels remain low – to encourage cycling, for example – should not be overlooked.

Environmental health

Local government duties surrounding aspects of environmental health fall under the remit of district councils in two-tier arrangements. Environmental health can be defined as:

Those aspects of human health... that are determined by physical, chemical, biological, social and psychosocial factors in the environment. It also refers to the theory and practice of assessing, correcting, controlling and preventing those factors in the environment that can potentially affect adversely the health of present and future generations.

WHO Europe, 1994, cited in Barratt *et al* (2013)

What district councils do in this area

There are thought to be at least 4,000 environmental health professionals working across all local authorities in England, forming a critical and core part of the public health workforce (Centre for Workforce Intelligence 2014), with a further 10,000 people employed as technical support staff. The functions included under the umbrella of environmental health are numerous and diverse, and many overlap with the functions and roles covered by this report. The core roles include those set out in the Box below.

Common environmental health functions of district councils

- Having a statutory duty under the Environmental Act 1995 to manage local air quality, including monitoring and identifying areas where national objectives may be 'at risk', producing action plans to reduce pollution and working with others to implement change
- Sharing a duty with unitary authorities under the Environmental Protection Act 1990 to investigate noise nuisance complaints and, where relevant, serving an abatement notice or fixed penalty, or seizing the equipment responsible
- Conducting food safety inspections of anywhere serving and/or preparing food and investigating food-borne illnesses
- Ensuring that safe water is available to the 1 per cent of the population not connected to mains water
- Enforcing smoking bans under the Health Act 2006
- Under Section 18 of the Health and Safety at Work Act 1974, ensuring compliance with occupational health and safety regulations, including ensuring adequate working conditions and welfare facilities, in a number of premises and workplaces
- Enforcing the Sunbeds (Regulation) Act 2010, which prohibits under 18s from using sunbeds
- Identifying, preventing harmful effects from, encouraging regeneration of and taking responsibility for returning contaminated land to a suitable standard

- Under the Prevention of Damage by Pests Act 1949, ensuring that districts are free from mice and rats
- Resilience and emergency planning
- Private sector housing, homes of multiple occupation licensing and control, overcrowding residential

The impact this can have on health

All the examples of environmental health functions listed in the Box above are likely to have an impact on health, though the effects have not all been individually quantified. Here we describe a few areas where work has been done to look at the potential impact on health.

There are increasingly consistent associations between air pollution and a number of health outcomes, including traffic-related pollution and asthma in children, exacerbations of asthma, worsening of the symptoms of chronic obstructive pulmonary disease (COPD), cardiovascular disease morbidity and mortality (Brook *et al* 2010), and an increased risk of viral respiratory infections associated with exposure to common air pollutants (Kelly 2014; Moore and Newey 2012). Poor air quality and pollution disproportionately affects more deprived communities (Moore and Newey 2012).

Estimates suggest that the health costs of man-made air pollution in 2005 could have been up to £20 billion, with estimated average reductions in life expectancy across the United Kingdom of up to 6–8 months (Committee on the Medical Effects of Air Pollutants 2010; Department for Environment, Food and Rural Affairs 2007). That represents a greater impact on life expectancy than passive smoking and car accidents put together (Miller and Hurley 2006).

The World Health Organization (WHO) suggests that sleep disturbance and annoyance, usually as a result of road traffic noise, comprise the main burden of environmental noise in EU member states and other Western European countries, as quantified in disability-adjusted life years (DALYs). The health impacts of environmental noise include sleep disturbance, annoyance and stress, tinnitus, cognitive impairment and hypertension (Department for Environment, Food and Rural Affairs 2014; Theakston 2011). Initial estimates from 2008 suggest that the cumulative UK-wide impact of noise pollution on health is in the region of £2 billion to £3 billion per year (Department for Environment, Food and Rural Affairs 2008). Noise can also have a negative impact on productivity and the natural environment (Department for Environment, Food and Rural Affairs 2014).

Food-borne diseases, although often mild in the United Kingdom, can still result in work or school absences and lead to significant demands on the NHS. The Food Standards Agency estimates that around 20,000 people received hospital

treatment due to these illnesses in the United Kingdom in 2008, causing around 500 deaths and costing nearly £1.5 billion (Food Standards Agency 2011).

Enforcing the smoking ban in public places means that exposure to second-hand smoke, which increases the risk of non-smokers developing lung cancer and heart disease by 25 per cent in the long term, continues to be minimised. Research shows that the legislation has led to sizeable improvements in air quality and, in some instances, in health – for example, of employees working in places where smoking was prevalent before the ban (Local Authorities Coordinators of Regulatory Services 2008).

Examples of the possible return on investment

A recent survey from the Chartered Institute of Environmental Health, covering all local authorities, reported that the average budget for environmental health services has fallen in real terms by 6.8 per cent between 2013–14 and 2014–15. Over the next three years, in response to expected further budget falls of 30 per cent, pest control, non-mandatory aspects of housing regulation, drainage, air quality, food safety, and health and safety inspections were all cited as ‘at risk’ (Smith *et al* 2015).

There are very few specific studies of the cost-effectiveness or return on investment of environmental health interventions, and those that do exist are often in the context of developing countries or very specific interventions such as fox eradication in Australia (*see, for example, Jones et al* 2006). There are several possible reasons for this, including the fact that since many environmental health services are statutory duties that councils are required to deliver, at least to some degree, there has been less pressure to prove value for money in the past.

However, at a time when spending is clearly falling, there is a real need for this kind of evidence to be developed. Evaluating both the outcomes and economics of these services can help inform difficult decisions and ensure that increasingly scarce resources deliver the best outcomes for local communities.

5. Enabling roles: economic development, planning, and community engagement for health

While district councils have an impact on public health through the delivery of specific services such as housing, leisure, and environmental health services, they also undertake enabling and underpinning activities that can either increase or decrease the impacts of those services, and can have a direct effect on health too. Prime among these enabling roles are economic development, planning, and community engagement for health.

Economic development

A strong local economy is associated with a wide range of better health outcomes. Michael Marmot's ground-breaking work (Marmot *et al* 2010) showed how higher levels of income deprivation (including more working age people dependent on unemployment and other welfare benefits) are systematically related to lower life expectancy and poorer health in those places.

The difference between the richest and wealthiest communities is stark. Those living in the richest communities on average live seven years longer and have 17 more years in good health than those living in the poorest. However, this is not simply a problem among poor people; this relationship holds throughout the income distribution – all but the very wealthiest places have lower levels of health than those at the top of the income distribution. To the extent that district councils can act to weaken this link, including by focusing the benefits of economic development appropriately across the distribution, it will make a key difference to people's health.

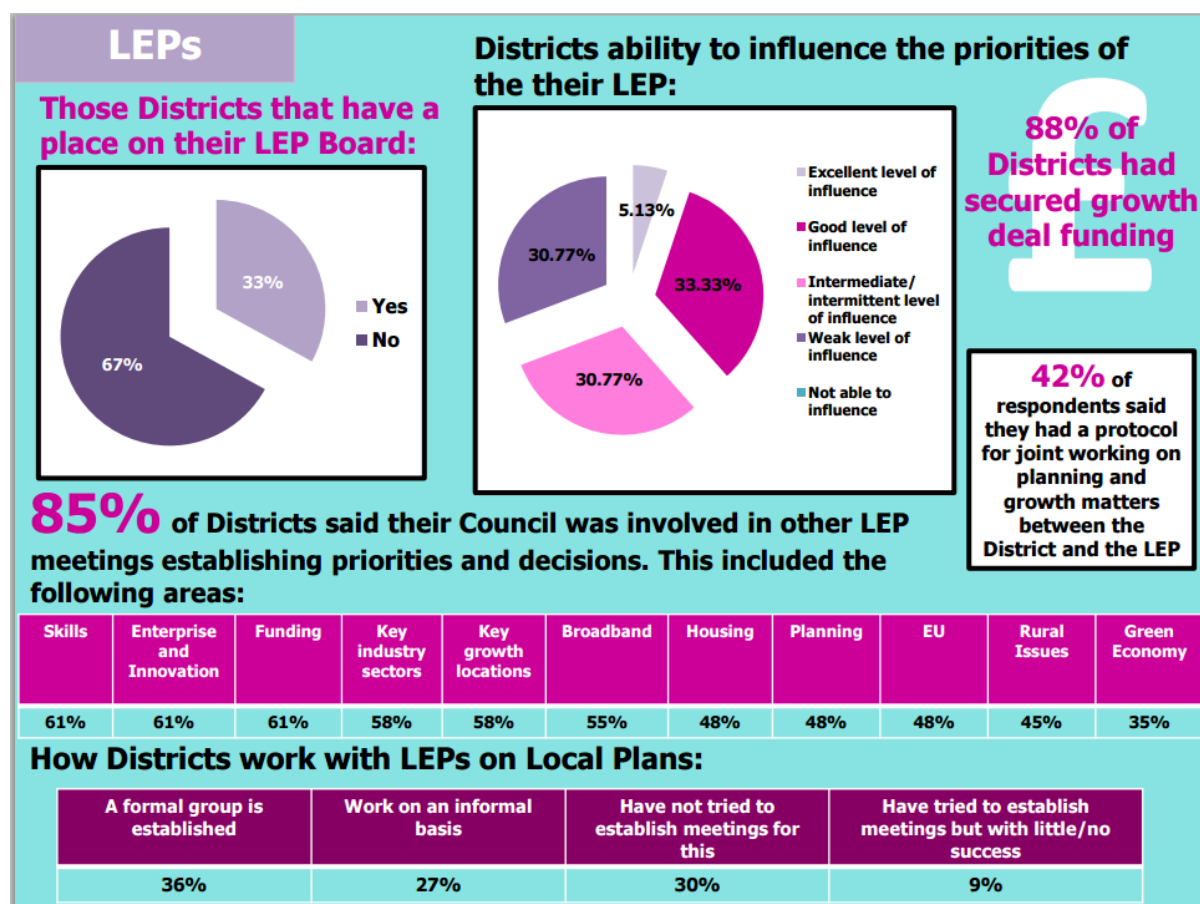
More recent research has shown that for every 10 per cent increase in involuntary unemployment in a community, average life expectancy is one year lower (Buck and Maguire 2015). District councils' role in economic development is therefore critical to the long-term health of their citizens.

What district councils do in this area

In two-tier areas, district councils help facilitate the local conditions for sustainable economic growth. The introduction of the Community Infrastructure Levy and the New Homes Bonus have the potential to strengthen local growth.

District involvement in Local Enterprise Partnerships (LEPs) and City Deals is also important for regional growth as well as devolved Whitehall budgets in infrastructure, housing and transport. For example, Figure 7 shows the involvement of district councils in LEPs in mid-2015.

Figure 7 District councils and their involvement in Local Enterprise Partnerships



Source: District Councils' Network 2015c

District councils also undertake important roles through their environmental health services (see chapter 4). Further, Inward Investment and Economic Growth teams are located within districts, which help create sustainable employment in local communities.

District councils have an important role in delivering the government's Troubled Families programme and also provide a wide range of direct and indirect support to employers, the unemployed, and hard-to-reach groups, hopefully averting and tackling the health consequences of long-term unemployment. They also administer housing and Council Tax benefit systems (District Councils' Network 2014) and provide direct financial support, information and advice to low-income individuals and households.

For the vulnerable in society and those falling on hard times, these services have a fundamental impact on the wider determinants of poor health. Many district councils work with the voluntary and community sector in providing local support networks for people to develop financial literacy, deal with debt and financial problems, and the consequences for mental health. Good examples include

supporting the development of local credit unions as an alternative to payday lenders.

The impact this can have on health

Economic development – when appropriately planned – results in good-quality, stable employment, which is critical to the health of individuals, families, social networks and, ultimately, communities. This is true across the life-course, but especially for young people who are less likely to find work later in life and more likely to experience poor long-term health if they are out of the workforce as younger people (Audit Commission 2010). More generally, unemployment increases the risk of fatal or non-fatal cardiovascular disease and events, and all-cause mortality, by between 1.5 and 2.5 times (Siegrist *et al* 2010); one in seven men develop clinical depression within six months of losing their job (Royal College of Psychiatrists 2013).

We also know that health behaviours such as drinking, smoking and lack of exercise are far greater among the long-term unemployed than among people in employment; these effects can last for several years even after a person has found employment. Recent research (Watts *et al* 2015) in deprived communities in London, for example, has found that the unemployed are almost three times more likely to report smoking, poor diet, excess alcohol consumption and sedentary behaviour compared to those in full-time paid employment.

However, the relationship between employment and health cuts both ways. More than half of people with a long-term condition say their health is a barrier to the type or amount of work they can do (Department of Health 2012), while poor mental health is a leading cause of worklessness and sickness absence in the United Kingdom. Getting back into employment increases the likelihood of reporting improved health (from poor to good) almost threefold, and boosts quality of life almost twofold (Carlier *et al* 2013).

However, if that work is poor-quality work, it too can be a significant health risk. Around 1.8 million people report suffering from an illness they believe was caused or made worse by work; 80 per cent of new cases of work-related illness were musculoskeletal disorders or related to stress, depression or anxiety (Health and Safety Executive 2012). Stress arising from work leads to the loss of 13 million working days a year. Job stress, job insecurity and lack of job control are strongly related to poorer long-term physical and mental health outcomes, increasing the risk of cardiovascular disease (Siegrist *et al* 2010), hypertension, diabetes, and unhealthy behaviours, and significantly increasing the risk of depression.

Clearly then, economic development – and particularly its relationship to ‘good’ employment – is good for health. However, any economic development needs to be carefully thought through. Too much development, too fast, can radically

alter the nature of communities, their social networks, and through that, their health.

The benefits of economic development therefore need to be distributed evenly in the community while taking into account important trade-offs with other health-promoting roles, such as access to high-quality green spaces. How economic development 'is done' is often as important to long-term health and wellbeing as the economic development itself. Responses to the devolution from business rates revenue to local areas (Johnstone 2015) could therefore be positive for public health, if those responses explicitly factor in the likely effects on health. This is where the connection with district councils' other enabling roles – in good planning and community engagement in health – is so critical.

Examples of the possible return on investment

A very wide array of activity and functions sit under the umbrella 'economic development', and examples of the return on investment of some of these activities are set out below.

District councils' role in the Troubled Families programme is likely to have had some positive return on investment if findings from an early evaluation are broadly transferrable. Across a range of places, return on investment averaged around £2 for every £1 spent: in Manchester, for every £1 invested in the programme, £2.20 in gross benefits was realised; the figure was £1.94 in Redcar and Cleveland, £1.96 in Wandsworth, and £1.80 in Bristol (Department for Communities and Local Government 2015c). These returns came across a range of public services, including crime reduction and reductions in NHS and social care use.

Getting people back into work and helping them 'be well' in work can help to reduce the economic burden of mental health (McDaid *et al* 2008). For example, Business in the Community has estimated that its programme of getting disadvantaged groups 'Ready for Work' provides more than £3 in benefits to society for every £1 spent over five years (Business in the Community 2012). This creates savings for central and local government, mainly through reduced costs associated with homelessness, crime, benefits, and health care. A similar programme by the Octavia Foundation (2012) generated a social return of around £4 for every £1 invested, mostly from saved benefits but also including some improvements in health.

Districts, mainly through their remit in environmental health, can initiate their own employee wellness programmes as well as support their adoption more widely. Employee wellness programmes have been found to return between £2 and £10 for every £1 spent (PricewaterhouseCoopers 2008).

Planning

As stated in the National Planning Policy Framework, the purpose of the planning system is to contribute to achieving sustainable development, playing a core role in creating 'a high quality built environment, with accessible local services that reflect the community's needs and support its health, social and cultural well-being' (Department for Communities and Local Government 2012).

Planning underpins – or at least impacts or interacts with – most district council functions. It is best viewed not as an intervention but as an enabler. For example, designing in green spaces and connections for active travel, such as cycle paths, aspects of urban design like restricting traffic and the density of fast-food outlets, and enabling access to healthy food outlets can all play a crucial role in promoting physical activity and healthier living (Ballantyne and Blackshaw 2014; Mitchell *et al* 2011).

What district councils do in this area

Planners within district councils perform a number of functions, including processing, commenting and advising on planning applications and preparing a local plan – a suite of strategic documents outlining the spatial vision, objectives and policies for a district over the coming 15–20 years (Town and Country Planning Association 2015).

Along with housing, environmental health and other officers, planners can also feed intelligence and evidence into the development of a Joint Strategic Needs Assessment (JSNA) and Joint Health and Wellbeing Strategy (JHWS), though this is not standard practice. The JHWS outlines local priorities for the next three years in tackling the needs identified in the JSNA – both are produced by health and wellbeing boards. The former is required to consider the role of wider environmental factors such as access to green space, transport, community safety and housing in its assessment.

There are a number of legislative tools at planners' disposal that help to secure the local infrastructure needed to alleviate the added pressure on local areas as a result of new developments. Section 106 agreements between local authorities and developers, also known as planning obligations, aim to counterbalance this pressure by specifying improvements that compensate for and alleviate any negative impact the development may have. These agreements are commonly used to support the provision of infrastructure and services including recreational facilities, education, highways, health facilities or affordable housing.

The Community Infrastructure Levy (CIL), which applies a locally fixed pound per square metre charge to new developments, can also be used to raise funds for general (rather than site-specific) infrastructure and community assets

needed as a result of increased development. In Huntingdonshire, for example, the district council's CIL charges an £85 standard rate, some of which goes towards the hospital's critical care centre (Ross and Chang 2012).

As well as these core roles, planners have an equally important, and related, role in co-ordinating actions and engaging with those from other sectors, including education, transport, housing and health (Allen 2014).

The impact this can have on health

The physical structure of houses, neighbourhood infrastructure and the community – by which we mean the social environment, population and services in a neighbourhood – all fall under planning's sphere of influence, and all have a profound effect on physical, social and mental health (Braubach *et al* 2011).

Long-term changes in the spatial environment, such as less green residential outdoor space (Inclusive Design for Getting Outdoors 2012) and design that is increasingly centred around accommodating cars over pedestrians (Living Streets undated) can have significant impacts on physical activity levels. The average number of miles walked per person per year has fallen from 255 in 1975/76 (Ballantyne and Blackshaw 2014) to 187 in 2013 (Department for Transport 2014), total miles travelled by bicycle are down from 14.7 billion in 1949 to 3.25 billion in 2014 (Department for Transport 2015), and less than half of all school children now walk to school, down from 67 per cent in 1985–86 (Living Streets undated).

The Spatial Planning and Health Group's 2011 health checklist outlines the kinds of areas that should be considered when scoping the health impacts of a development or when considering planning applications. These include taking consideration of open and green spaces, air quality and noise, affordable and energy-efficient housing, access to employment, and street layout and connectivity (among others). This highlights the underpinning nature of planning in relation to the other district council functions outlined in this report.

Effective and timely planning and redevelopment can also benefit the local economy, creating jobs and acting as a platform for economic development. For example, redevelopment of one district in Dublin led to a 300 per cent increase in employment (Lawlor 2013). There are other benefits too. Designing energy-efficient homes keeps household bills down and building resilient homes can lessen the destructive impact of flooding and climate change (The Lyons Housing Review 2014). The Prince's Foundation (2007) reported that good urban design can also contribute to tackling issues of crime, carbon emissions and social exclusion.

Examples of the possible return on investment

As recently reiterated by the World Health Organization (WHO), the number of potential confounding factors involved in the relationship between local government policies and planning-related actions and health outcomes as a result make it particularly difficult to attribute effect and causality (de Leeuw *et al* 2014). Controlled trials are also unfeasible in this area, and so the evidence is likely to remain suggestive rather than being able to answer the questions that remain about causality (Bundle 2014).

However, the impact of particular aspects of planning – including encouraging physical activity or active commuting through the design of healthy, active places – can be more easily quantified. Examples are included below.

- If good planning processes in a community of 100,000 led to walking and cycling increases of 1.75 per cent and 3.5 per cent a year respectively, the overall benefits are likely to outweigh the costs 60-fold for walking and 168-fold for cycling (Powell *et al* 2011).
- Measures in Copenhagen to reduce city centre traffic and increase high-quality public spaces have led to – among other benefits – a 65 per cent increase in bicycle use since 1970 and an increase in use of public spaces (Woolley *et al* 2004).
- Researchers modelling the impact of increasing cycling levels eightfold and doubling the average daily distance walked on direct NHS costs relating to seven diseases reported that within 20 years, savings of around £17 billion (2010 prices) were possible. Further cost savings were identified after 20 years due to the lag between increases in active travel and changes in health outcomes and prevalence of disease (Jarrett *et al* 2012).

Enabling communities to invest in their own health

What district councils do in this area

District councils have critical functions in enabling and supporting their citizens and communities. These include their work with troubled families, and wider work in enabling citizens and communities.

The impact this can have on health

There is growing recognition that although disadvantaged social groups and communities have a range of complex and inter-related needs, they also have assets at the social and community level that can help improve health, and strengthen resilience to health problems.

More broadly, strong social networks can have a significant impact on health. One large-scale international study showed that over seven years, those with adequate social relationships had a 50 per cent greater survival rate compared with individuals with poor social relationships (Holt-Lunstad *et al* 2010). Moreover, social networks have been shown to be as powerful predictors of mortality as common lifestyle and clinical risks such as moderate smoking, excessive alcohol consumption, obesity, and high cholesterol and blood pressure (Pantell *et al* 2013; Holt-Lunstad *et al* 2010).

Social support is particularly important in increasing resilience and promoting recovery from illness (Pevalin and Rose 2003), while social capital improves the chances of avoiding lifestyle risks such as smoking (Folland 2008; Brown *et al* 2006). However, in the most deprived communities, almost half of people report severe lack of support (Halpern 2004), making people who are at greater risk less resilient to the health effects of social and economic disadvantage.

Examples of the possible return on investment

(i) Troubled Families

- Before the Troubled Families programme began, the government estimated that the 120,000 troubled families cost around £9 billion annually – including more than £1 billion in health costs (Public Health England *et al* 2014). As of March 2015, a reported 105,671 complex families had benefited from the Troubled Families programme, saving an estimated £1.2 billion from an investment of £448 million. In Manchester, £2.20 in benefits were realised for every £1 invested (Department for Communities and Local Government and the Rt Hon Eric Pickles 2015).
- Cost analysis in the evaluation of anti-social behaviour family support projects concluded that this form of intervention offers excellent value for money (Department for Communities and Local Government 2006). More recent estimates suggest average benefits to health services of £1,700 per family (Department for Communities and Local Government 2015c).

(ii) Community-centred approaches to health

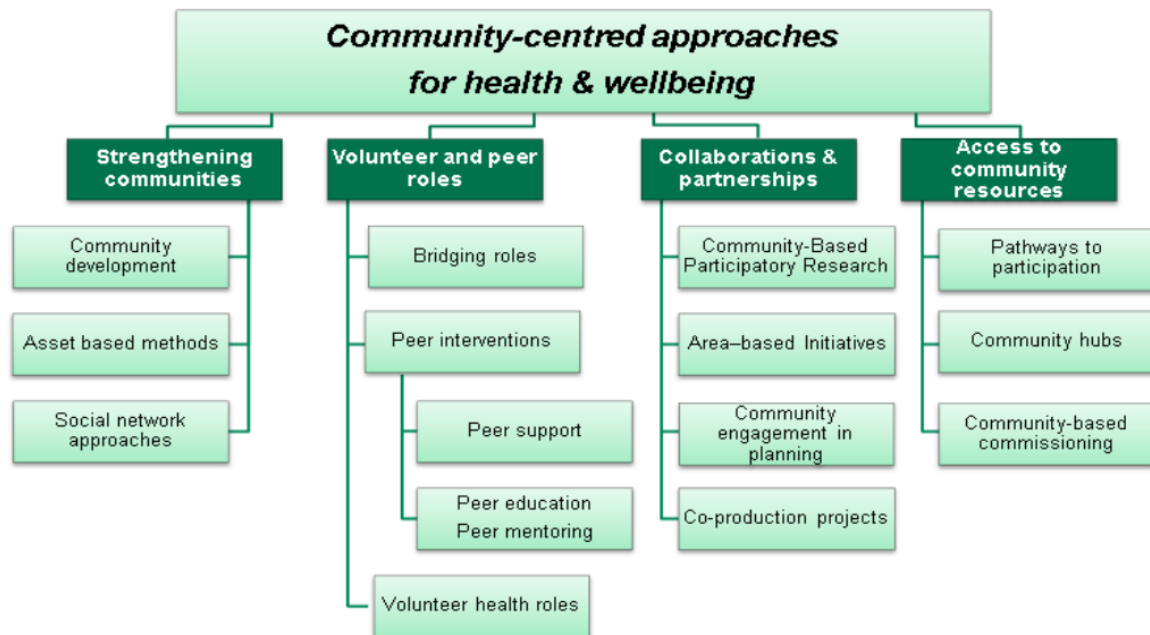
Public Health England (South 2015) has summarised and collated evidence on the impact of the 'family of community-centred approaches to health and wellbeing'. Figure 8 shows the main types of approaches grouped around four different strands:

- strengthening communities – where approaches involve building community capacity to take action on health and the social determinants of health

- volunteer/peer roles – where approaches focus on enhancing individuals' capabilities to provide advice, information and support or organise activities around health and wellbeing in their or other communities
- collaborations and partnerships – where approaches involve working in partnership with communities to design and/or deliver services and programmes
- access to community resources – where approaches focus on connecting people to community resources, information and social activities.

Such approaches are particularly important in the current context of austerity, which has a significant impact on health, particularly for the disadvantaged – as Marmot *et al* summarise, 'building resilience within communities and ensuring that the assets within those communities are fully utilized can mitigate against the negative impacts of unemployment and lower incomes and improve health within those populations' (Marmot *et al* 2013).

Figure 8 Community-centred approaches for health and wellbeing examples



Source: South 2015

Evidence on the economic paybacks of community-centred approaches is, as yet, limited. As South (2015) says:

Evidence on the cost-effectiveness of community engagement interventions is limited, although some reviews have reported cost benefits in some circumstances... In summary, despite an incomplete picture, community-centred approaches, including community capacity building and volunteering, potentially offer a significant return on investment. Variability in the economic value may be due to multiple factors, but poor volunteer retention, high turnover and low levels of community ownership and low uptake are likely to push costs up. Hidden costs should not be borne by the community, and consideration should be given to whether financial incentives to support engagement are needed.'

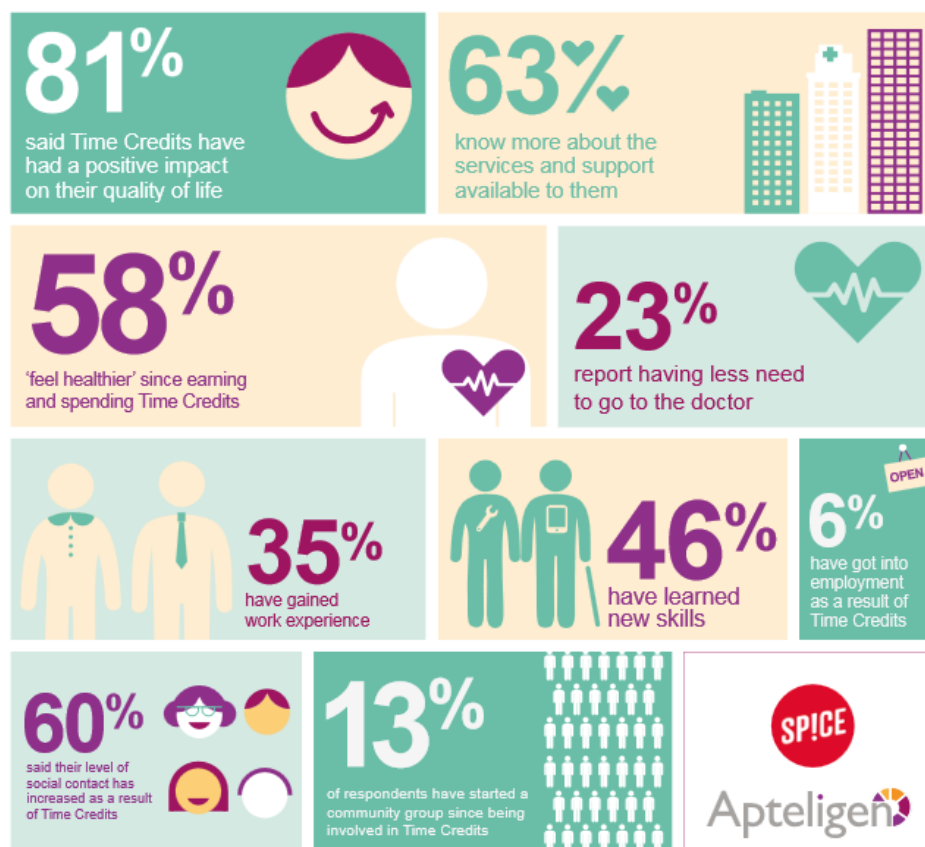
South (2015, p 34)

There is better evidence on some of the individual components of a local strategic approach to building and utilising community assets (Knapp et al 2011), as follows.

- Every £1 spent on health volunteering programmes returns between £4 and £10, shared between service users, volunteers and the wider community.

- British Red Cross volunteers have been shown to generate cost savings equivalent to three and a half times their costs (Naylor *et al* 2013).
- Analysis of befriending schemes – which aim to alleviate social isolation, loneliness and, in turn, depression, particularly among older people – has shown that a typical service might cost around £90 per older person, with a net economic value of more than £420 per person when quality of life improvements are included. Within this, the economic benefits, mostly falling to the NHS, are estimated at £38 through reduced health service use (Knapp *et al* 2012).
- Timebanking – where members of the community contribute their own skills or help in return for similar support from fellow timebank members – is receiving support from a large number of district councils. There is strong evidence that this promotes social inclusion, and can improve physical and mental health impacts, and employment prospects, while reducing reliance on certain types of support. Evaluation of Spice Time Credits (Figure 9), which works with a number of district councils, suggests an array of benefits including reported lower need to use the NHS, feeling healthier, and wider impacts that are linked to health (Spice and Apteligen 2015).

Figure 9 Benefits from timebanking – evaluation of Spice Time Credits



Source: Spice and Apteligen 2015

- Other modelling suggests that the average cost for timebanking is around £607 per member per year (this varies depending on whether it is wholly run by volunteers or paid staff). But the net value is estimated to exceed £1,300 per timebanker – split between quality of life improvements and economic benefits, which includes short-term savings to the government through reduced benefit claims (Knapp *et al* 2012).

6. Innovation in services and their delivery

We have argued that district councils need to show innovation in service design and delivery, given the financially straitened times in which they find themselves operating. Given the switch towards local rather than national sources of income, it is also likely that citizens and communities themselves will increasingly expect more innovation from district councils. Moreover, as we argue in the previous section, district councils have an important role in supporting and enabling their communities to take more control over their own health and wellbeing, and this will require more innovation.

With the help of the District Councils' Network we have therefore collated some examples of innovative service delivery across the range of core and enabling functions covered in this report.

It is clear, however, that even for these functions, much more information is needed on the impact on health outcomes, cost-effectiveness and return on investment in order to help districts prioritise their actions. We return to this in the final section.

Joint public health initiatives in Hertfordshire

Recognising the contribution of districts in delivering a significant portion of the day-to-day work around the wider determinants of health, Hertfordshire County Council and the districts set up the public health partnership, often called the 'district offer'. This is a unique mechanism that sees 'public health leadership of district and borough councils alongside county council leadership', enabling the 10 district and borough councils that make up Hertfordshire to jointly deliver a number of public health initiatives.

Each district sets its own priorities, and often county-run services then wrap around these local plans. Projects are agreed by the chief executive of the council and the director of public health, and monitored through the county-wide Public Health Board.

The initiative comprises eight core elements:

- data and joint strategic needs assessment
- public health partnerships fund
- workforce development
- communication and strategy
- delivery partnerships
- technical advice and assistance
- liaison
- health protection arrangements.

The initiative is backed up by a package of funding, equivalent to £100,000 per district per year, allowing the districts to deliver public health and wellbeing schemes in their communities. In addition, the county council have made one-off funding available for improving air quality and enabling disabled access to physical activity. Districts have in some cases added their own funding to the pot, as well as incorporating match-funding from national bodies; for example, £300,000 has been secured from Sport England to deliver sports courses for inactive people and increase participation in physical activity among women and those over the age of 50.

Similar arrangements run in West Sussex, where districts jointly developed a plan for action on health inequalities and are commissioned by to deliver health promotion; and in Hampshire, where a bidding process for public health grants to support local transformative initiatives has been set up.

Sources:

- Hertfordshire: www.lgcplus.com/idea-exchange/partnering-to-solve-public-health-problems/5074498.article
- West Sussex: www.local.gov.uk/documents/10180/11493/West+Sussex+County+Council+CW+checked.pdf/ef6d179f-df8b-4d62-94b5-b29809b9f141
- Hampshire: www.local.gov.uk/documents/10180/6869714/L15_15+Public+health+transformation+twenty+months+on_WEB_39693.pdf/7bb8060e-9a7b-4b85-8099-e854be74cfb5

Joining up health services and housing in Blaby, Leicestershire

Increasing pressure on hospital beds (which is thought to be associated with delayed transfers of care for patients with housing needs, among other factors) was raised as an issue by Leicestershire Partnership NHS Trust. Research carried out on the wards found that around 40 per cent of patients identified a housing issue as affecting their discharge, ranging from a lack of heating, repairs needed and adaptations needing to be carried out, to those who were homeless or sleeping rough.

Two pilot schemes were established at the Leicester Royal Infirmary and the Bradgate Mental Health Unit, initially funded by the trust. The scheme involves housing staff – called housing enabler officers – going into the units to talk to patients and attend discharge meetings, with the aim of identifying and resolving housing issues as early on as possible following admission. The funding pot pays for community workers to carry out any necessary practical work such as arranging repairs, with money also available for rent deposits and furniture packs.

Since its launch in November 2014, the Bradgate scheme has received 68 referrals. In a three-month evaluation, it showed a decrease in delayed transfers of care from 610 to 210 days compared to the same period the previous year, with potential financial savings also identified. Full evaluations of both pilots are under way.

Source: <http://districtcouncils.info/files/2015/06/Blaby-District-Council-hospital-discharge.pdf>

Joining together to complete a housing needs survey in Suffolk

Suffolk is the fifth fastest-growing shire county in England, with large rises in the number of over-75s in recent years. In response to the recognition that these demographic changes were putting increasing strain on the housing stock, in 2014 the seven districts and county council in Suffolk came together to carry out the first joint housing needs survey.

The five-section questionnaire asked not only about housing, but also health, care, finance and employment. It aimed to move beyond a one-dimensional view of the county to build up a detailed evidence base covering the wider determinants, which could be used to develop future policy.

The survey involved consulting with a range of local partners, including voluntary sector groups, public health, adult social care and the University Campus Suffolk, with questions being asked in a range of engaging formats including use of graphics. The project was promoted locally via radio, posters and other means, and over the month that the survey was open, 15,000 postal and 300 online questionnaires were returned to the team.

Having data at this detailed level should help areas tailor their approach, as well as yielding information about local needs and trends and avoiding duplication by different services. It is hoped that the collaborative element will serve to 'galvanise future partnership work'.

Source: www.local.gov.uk/documents/10180/5854661/L14+-+85+Housing+and+Health+case+studies_14.pdf/b4620ef6-87bc-4e12-964a-5cbd4433dd47

Planning for health in South Oxfordshire

Recognising the role of spatial planning in encouraging healthy living and helping older residents to maintain independence and wellbeing, South Oxfordshire district council has worked with a range of partners (including the NHS, county council, housing associations, private developers and the voluntary sector) to maximise the impact of this statutory role.

Projects to date include the £395,000 Ladygrove 'loop' (a 2.4-mile integrated walking, cycling and fitness route), alongside enhanced green spaces, running through the Ladygrove estate. There is also the Great Western Park residential development, where 10 per cent of homes will be 'lifetime homes', able to support and adapt to the changing needs of individuals and families at different stages of life.

Source: <http://districtcouncils.info/files/2013/11/South-Oxfordshire-District-Council-Public-Health.pdf>

Active Living on referral in Cannock Chase

An exercise referral programme has run in Cannock district since 2002, relaunched in May 2015 in partnership with Wigan Leisure and Culture Trust (WLCT), and with joint funding from Macmillan Cancer Support.

Working with local health care professionals, including GPs and practice nurses, the programme identifies people with existing long-term conditions (or those at high risk of developing them) who might benefit from a more active lifestyle and refers them to the Active Living team at WLCT. Most referrals are due to an individual being overweight, having heart problems or chronic obstructive pulmonary disease; 63 per cent of referrals are for people over the age of 50. A specific care pathway for past and current cancer patients also forms part of the service.

People are referred for an individually tailored 12-week activity programme, planned in a one-to-one appointment with a qualified member of staff. After the 12 weeks, a new plan is put together to encourage participants to continue to stay active.

Data from a similar scheme run in Wigan on which the Cannock service was modelled show that:

- there were around 3,500 new participants in 2014/15 at a cost per head of £119
- 68 per cent of participants adhere to the programme at 12 weeks
- 59 per cent increased their physical activity levels after 12 months
- 50 per cent reached the Chief Medical Officer guidelines of more than 150 minutes of moderate activity a week.

Source: personal correspondence

Joined-up, localised early help services in South Norfolk

This multi-agency scheme aims to improve outcomes for families and local residents, intervening earlier to prevent problems escalating into more intensive interventions by providing timely support and working to address emerging needs. Partners include the district and county councils, local police, the clinical commissioning group, housing agencies and children's centre. The public and community champions are also key partners.

The model was first trialled in Long Stratton and Diss, with a hub forming the basis for 35 services operating collaboratively across the district. The approach focuses on three main themes: families, services and communities. It has four primary objectives to:

- improve the economic and future resilience of local families and residents
- target the needs of local families and residents at the earliest opportunity to prevent escalation
- develop a collaborative shared working model that is scalable
- provide meaningful volunteering opportunities for early help across the district to increase resilience within the community.

Elements of this approach include:

- swift access to support for those who do not meet thresholds for social care
- increased capacity to support families
- innovative and evidence-based interventions
- a network of community connectors to act as the voice of the community and a conduit between community and services
- engaging communities to identify needs and solutions
- a multi-agency case management system for early help
- improved multi-agency processes and information sharing.

A prospective cost-benefit analysis suggests that this approach could deliver £1.8 million in savings over 10 years. Benefits are achieved through increased employment, improved mental health and health outcomes, and reduced anti-social behaviour and statutory homelessness (among other things). To date, the partnership has worked with more than 200 families.

Source: <http://mycommunity.org.uk/stories/our-place-south-norfolk/>

Homefinder private rented project

Homefinder.uk.com is an innovative advertising scheme to engage, support and work with a range of private and social landlords across Leicestershire. The scheme is led by Blaby District Council and was developed in partnership with eight councils across Leicestershire. It aims to improve access to affordable private rented accommodation, to increase the number of affordable properties available (especially for single people), and to improve standards in the sector.

Since its launch in October 2013, the scheme has developed and increased the range of properties available on the site to enable vulnerable households (who may be homeless or facing the threat of homelessness) to identify and secure a home. On average, the site attracts more than 10,000 visitors a month looking for a home to rent in Leicestershire, and it advertises more than 1,000 properties at any one time. There have more than 200 lets to homeless or vulnerably housed people.

Source: personal correspondence

7. Discussion and recommendations for action

District councils clearly have a lot to offer their citizens and communities in terms of their actual and potential role in improving health. This report has summarised, at a very high level, some of that potential in housing, environmental health services, and leisure and green spaces, in terms of district councils' specific functions and their enabling roles in economic development, planning, and engaging with communities.

While we could develop specific recommendations for each of these topics, we believe that there is a more pressing demand for action on important underpinning factors, which will help ensure that district councils maximise their impact on health, wherever they choose to act.

Working in partnership and alignment

To achieve more on public health, district councils need to work in partnership with others, ranging from Public Health England and other tiers of local government and directors of public health, to the local NHS, the voluntary and business sectors, and communities themselves.

That is harder and more complex than it sounds. While there is a long history of partnership working to deliver health improvements in England, the evidence demonstrating what actually works is relatively weak (Hayes *et al* 2012; Smith *et al* 2009). Partnerships therefore have to be viewed as a means to an end, not an end in themselves, and must have a clear focus on outcomes. While the public health reforms have created the environment necessary to facilitate that focus, there remains as yet little direct evidence that they have paid off, for district councils or others. That is why the DCN, with others, needs to pay more attention to health impact assessment (HIA) – something we discuss further below.

But there is cause for optimism. While the emerging devolution agenda undoubtedly brings challenges, it provides the opportunity for new approaches to how the public sector works together, particularly at the local level. District councils are the tier of local government that is closest to communities through their impact on housing, leisure, green spaces and so forth. Combined with their knowledge, understanding and grounding in local priorities and context, this means they have a central role to play in any future devolved health care models.

District councils' enabling roles in areas such as planning, economic development and work with complex dependencies all have a significant bearing on health outcomes, and it is through a more integrated place-based approach to all of these factors (and their relationships with economic growth) that the success of

further devolved powers may depend. District councils' engagement with and inclusion in devolution arrangements is therefore crucial.

As one example, the functions, enabling roles and population size of district councils are well aligned to the footprint of federated models of general practice. There is no reason why they could not help form the backbone of a strong public sector locality infrastructure with a focus on population health systems; through wider strategic integration of their services, help manage the demand for health and social care; and provide wider social support and community engagement in collaboration with local voluntary sector organisations. Several parts of the country are experimenting with locality-based teams bringing together staff from many agencies to work at small area level. District councils could play a key role in this. Further, given districts' major role in the provision of leisure services, there is more that can be done by the NHS to link more proactively with districts to help people remain healthy, including supporting NHS England's major push on diabetes prevention.

District councils clearly need to be part of strategic discussions around devolution and the Forward View, and in closer contact with health and wellbeing boards so that they can bring influence to bear.

Given the importance of working in partnership to deliver better health outcomes, we recommend the following.

- Recommendation 1: The District Councils' Network (DCN) should develop an engagement and partnership strategy to support its members as they navigate the landscape that is emerging in the wake of recent public health reforms.
- Recommendation 2: The DCN should continue to advocate for and support its members in the ongoing negotiations around devolution and its implementation. The devolution agenda provides an ideal opportunity for district councils to ensure their long-term contribution to health improvement remains at the core of this agenda.
- Recommendation 3: Clinical commissioning groups (CCGs) and county councils should discuss district councils when discussing alignment as one key part of the 'out-of-hospital care' system. District councils are a key partner in improving the relationship between the health and social care system and the community.
- Recommendation 4: The DCN should work with directors of public health and their representative bodies (including the Association of Directors of Public Health and the Faculty of Public Health) and the NHS to better articulate district councils' prevention role in the Forward View (for example, through their role in providing leisure services).

The health and wider economics of district councils' roles

District councils have a value-for-money duty to secure efficiency, effectiveness and economy in service delivery. This report has shown that there is evidence of the cost-effectiveness and return on investment of district councils' activities as they relate to public health. However, the evidence is much stronger and more varied in some areas than others. In housing, though not complete, there is clearly good evidence of the return on investment. In environmental health services, by contrast, we found very little published evidence. This does not mean that those services are not delivering value for money, but that the work has not been done – or disseminated – to show that they are. It is clear that those services are currently being cut, without the health economics evidence to support or question those decisions.

More broadly, more needs to be done to collate existing information and case studies from district councils on the health economics of their activities in order to guide current decisions.

However, in the longer term, a more strategic approach is required. Many single initiatives without academic support are, understandably, evaluated and published by enthusiasts and those with commitment to projects. This can easily lead to what the Treasury calls 'optimism bias' – something that can affect public projects run by central as well as local government.

The case study approach has many benefits, including being a good motivator and seeing that 'it can be done there, it can be done here'. But this needs to be complemented by a more structured long-term approach and thorough investigation, with the aim of developing a set of economic analyses of district council functions. In order to do that, they should take the opportunity to work closely with Public Health England, which is investing strongly in and prioritising its economic support role to local government.

Given this discussion, we recommend the following.

- Recommendation 5: District councils should be more proactive in collating existing evidence on the health economics of their activities.
- Recommendation 6: Public Health England should work with the DCN to systematically develop the evidence on the health economics of district councils' functions. This could be one of the first tasks under the aegis of Public Health England's new health economics framework.
- Recommendation 7: The DCN should work with Public Health England to skill up and train district council officers in health economics, to secure better decisions in the long term.

- Recommendation 8: The Chartered Institute of Environmental Health should, as a matter of urgency, work with the DCN and other relevant parties to better understand the cost-effectiveness and return on investment of environmental health services.

Innovating for outcomes

We have included examples of case studies of innovation. These are diverse and show a good range of contributions that district councils can make to health, including their cost and benefit. However, there are very few robust examples of how that innovation has led to *demonstrable changes in health and wellbeing outcomes*.

District councils need to do more if they are to demonstrate (to other tiers of government, the NHS, Public Health England and other partners) that they really are a major force for good in health, and can do even more in future. But to move from simply demonstrating innovation to showing how it works to improve health requires a greater focus on health impact assessment (HIA). There are many resources to help district councils do that, including those set out in Buck and Gregory (2013).

Our 'ready reckoner' for local authorities was one very informal attempt to do this, and showed the relative evidence-informed *judgements* we came to when reviewing the evidence on what local authorities could do for health (see Figures 10 and 11).

Figure 10 The King's Fund's ready reckoner of how local authority functions affect health

Area	Scale of problem in relation to public health	Strength of evidence of actions	Impact on health	Speed of impact on health	Contribution to reducing inequalities
Best start in life	Highest	Highest	Highest	Longest	Highest
Healthy schools and pupils	Highest	Highest	Highest	Longer	Highest
Jobs and work	Highest	Highest	Highest	Quicker	Highest
Active and safe travel	High	High	High	Quicker	Lower
Warmer and safer homes	Highest	Highest	High	Longer	High
Access to green spaces and leisure services	High	Highest	High	Longer	Highest
Strong communities, wellbeing and resilience	Highest	High	Highest	Longer	High
Public protection	High	High	High	Quicker	High
Health and spatial planning	Highest	High	Highest	Longest	Highest

Source: Buck and Gregory 2013

Figure 11 The King’s Fund’s ready reckoner of how action in one area affects other areas

Impact from...	Impact on...							
	Best start in life	Healthy schools and pupils	Jobs and work	Active and safe travel	Warmer and safer homes	Access to green spaces and leisure services	Strong communities, wellbeing and resilience	Public protection
Best start in life		Highest	Highest	Lower	Lower	Lower	Higher	Lower
Healthy schools and pupils	Lower		Highest	Lower	Lower	Lower	Higher	Lower
Jobs and work	Higher	Higher		Lower	Higher	Lower	Higher	Lower
Active and safe travel	Lower	Lower	Lower		Lower	Higher	Lower	Higher
Warmer and safer homes	Higher	Lower	Higher	Lower		Lower	Higher	Lower
Access to green spaces and leisure services	Lower	Lower	Lower	Highest	Lower		Higher	Higher
Strong communities, wellbeing and resilience	Lower	Lower	Higher	Lower	Lower	Lower		Lower
Public protection	Lower	Lower	Higher	Lower	Higher	Lower	Lower	
Health and spatial planning*	Lower	Lower	Higher	Highest	Highest	Highest	Highest	Highest

* NB: Spatial planning is not represented as an area that is affected by the others, since it 'sits outside' those areas; its crucial impact is in terms of how objectives of activities in the other areas are planned and delivered through spatial planning.

Source: Buck and Gregory 2013

However, clearly this is very high level and is not granular or specific enough for district councils’ needs. We therefore make the following recommendations.

- Recommendation 9: District councils need to invest in health impact assessment (HIA) to move beyond innovative case studies of processes to show demonstrable improvements in health outcomes.
- Recommendation 10: Over time, the DCN, or designated body, should develop an accessible catalogue of relevant HIAs and make it available to all district councils.

Conclusion

District councils already influence the health of citizens in myriad ways, and we hope that this report has helped demonstrate that. Looking to the future, our recommendations are intended as constructive and practical steps to ensure that their important role is continued and built on. This is an uncertain and challenging time, but it is also one full of opportunity for district councils to further support and help improve the health of their local communities.

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