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Identifying the gap:
Understanding the drivers of inequality in public health

November 2021

Deloitte Centre *for*
Health Solutions

Contents

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Health Solutions

About the Centre for Health Solutions
Established in 2011, the Centre is the research arm of Deloitte's Life Sciences and Health Care practices operating in the UK and across our European member firms. Our aim is to be a trusted source of relevant, timely and reliable insights on emerging trends, challenges and solutions. We use our research to encourage collaboration across all stakeholders, from pharmaceuticals and medical technology companies to health and care providers and commissioners, to the patient and health and care consumer.

Foreword

Welcome to our report, *Identifying the gap*: *Understanding the drivers of inequalities in public health.* This is the second report in our future of public health series and provides insights into the historical challenges and approaches taken to tackle the 'wicked problems' affecting public health. The remit of public health is diverse and far-reaching and understanding the political, social and economic drivers affecting public health, including lessons learned from COVID-19, is crucial if the UK is to avoid repeating past mistakes.

While the responsibility for public health policy rests with central and local governments, Directors of Public Health and their teams are responsible for service delivery. These teams need a wide range of knowledge and skills: from surveillance, research and evaluations, to the design and delivery of intervention programmes, and an ability to engage with and empower the public and deliver targeted support packages. This calls for collaborations and partnerships with a wide range of other public and private stakeholders and an ability to influence those responsible for improving the social determinants of health.

Public health challenges are highly complex and require targeted and cross functional responses, including more certainty of funding and longer commissioning cycles. Moreover, these responses need to be managed in an optimal way, to achieve the overarching objectives of 'closing the health inequalities gap' and reduce avoidable disabilities and premature deaths, and improve the wider outlook for health and society.

The success of public health is usually gauged by its impact on reducing health inequalities, measured by reducing life expectancy at birth, and (more recently) healthy life years. The UK has seen improvements in life expectancy averaging an extra two and a half years every decade in the past century, however, these improvements have stalled in recent years, and the COVID-19 pandemic has reversed the trends to the levels seen in 2010.

These statistics hide huge disparities among different population groups and gaps in health outcomes between social classes and population groups. There is an increasing amount of research that shows the UK to be a very unequal and unfair society, and there is a growing acknowledgement that tackling health inequalities is a matter of fairness and social justice. The economic case is also clear – COVID-19 has illustrated the inextricable link between health and wealth and the need for action to reduce health inequalities and the economic losses associated with illness and premature death and disability. Consequently, we support the need for improving health and reducing health inequalities to be an explicit objective in the governments levelling up agenda.

Our report examines the what, who and why of public health and the importance of learning the lessons from the past. Key findings include the need for: longer-term funding and commissioning cycles, investment in the public health workforce; and for public health to be recognised and valued as an integral part of the integrated care system.

As always, we welcome your feedback.

Karen Taylor
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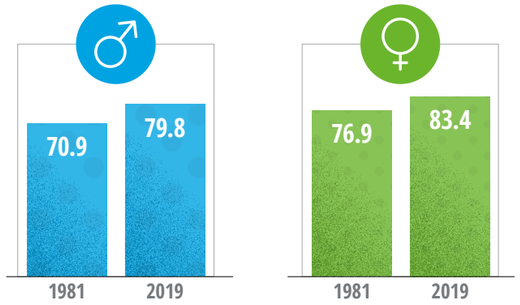
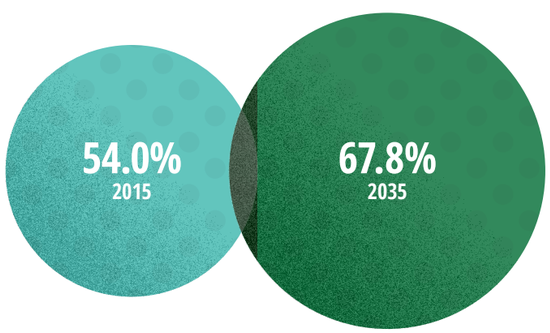
Key facts and trends on health inequalities in the UK

Average life expectancy increased from 70.9 years in 1981 to 79.8 years in 2019 for males. For females it increased from 76.9 years in 1981 to 83.4 years in 2019.[1]

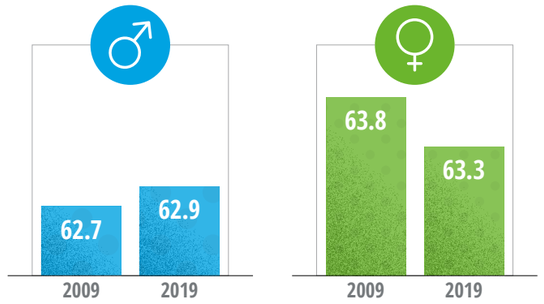


Indices of multiple deprivation (IMD) shows that in 2017-19, males in the least deprived decile in England could expect to live on average to 83.5 years, almost a decade longer than males in the 10% most deprived decile (74.1 years).[3]

In 2015, 54.0% of people aged over 65 had two or more conditions (multi-morbidity).[5] By 2035 this is predicted to rise to 67.8%.[6]

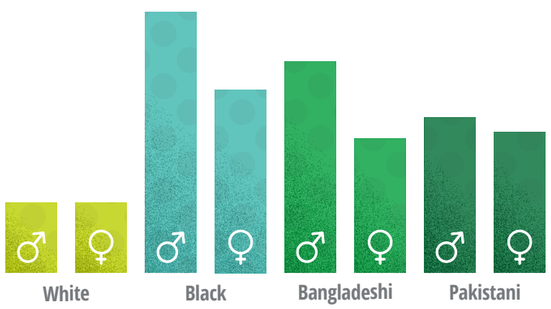


Healthy life expectancy increased for males from 62.7 years in 2009 to 62.9 years in 2019, but there was a slight decline for females, from 63.8 years to 63.3 years.[2]



Females in the least deprived decile could expect to live on average to 86.4 years, compared with 78.7 years for females in the most deprived decile, a difference of almost eight years.[4]

In the first wave of the pandemic, the rate of death involving COVID-19 was highest for the Black African group (3.7 times greater than for the White British group for males, and 2.6 greater for females), followed by the Bangladeshi (3.0 for males, 1.9 for females), and Pakistani (2.2 for males, 2.0 for females) ethnic groups.[7]



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People in the most deprived areas in England can expect to have two or more health conditions at 61 years, which is ten years earlier than people in the least deprived areas.[8]

The extra costs to the NHS of health inequalities have been estimated as

£4.8bn

a year from the greater use of hospitals by people in deprived areas alone.[10]

4.8m people never go online.[12]

Government research on household food insecurity in 2019-20, found that 87% of UK households reported being food secure, but 4% reported low household food security and 4% very low household food security.[14]

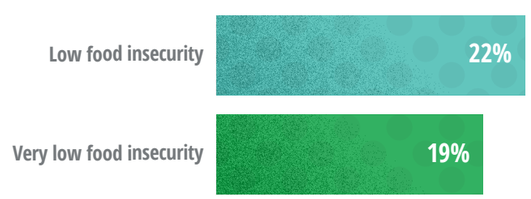
As of September 2020, at least 320,000 people were homeless, an increase of 4% since 2019.[9]

11.7m

people do not have the digital skills for everyday life.[11]

43% of the population lack skills to understand and use information on health and wellbeing.[13]

Food insecurity rates increased with the number of children in a household; 22% of families with three or more children had low food security, and 19% very low.[15]



Understanding the drivers of inequality in public health

Public health is concerned with improving the health of a defined population by protecting it from threats, preventing diseases, promoting healthy behaviours and prolonging healthy life years. Improving public health is complex and requires an array of targeted and cross-functional, collaborative approaches underpinned by an understanding of the health needs of the population. While there are many examples of good practice in improving public health, the gap in health inequalities has widened. The COVID-19 pandemic has exacerbated this gap and exposed the impact of fragmented and reduced funding and confusion over roles, responsibilities and accountabilities. The pandemic has also shown the UK to be an unequal society and raised concerns about the way public health is organised. In March 2021, the government set out plans to transform public health including creating a new UK Health Security Agency and an Office for Health Improvement and Disparities. Directors of Public Health (DsPH) and their teams will remain part of local government.

What is public health?

Public health is defined as "the art and science of preventing disease, prolonging life and promoting health through the organised efforts and informed choices of society, organisations, public and private communities and individuals" ***World Health Organization*****.[16]**

Public health is concerned with improving the health of a defined population and involves shifting the focus from treating illness to promoting greater health and wellbeing in a sustainable way, strengthening services and reducing health inequalities. This includes taking evidence-based measures to protect people's health, prevent disease and promote healthy behaviours.[17] The 'public' can be as small as a handful of people or as large as an entire city or it may be a specific group of people, such as the elderly or children in their first five years of life. Analysing the determinants of health of a population requires a focus on the entire spectrum of physical, mental and social health and wellbeing.[18]

About this report

This report provides a synopsis of relevant literature on the complexities of public health (who is responsible, how it is funded, and the rationale behind the 2012 reforms of the public health system); followed by the key findings from our primary research on the challenges facing public health pre-pandemic. It examines the impact of the pandemic and explores what is needed to achieve a sustainable and equitable future for public health.

Why public health matters?

Public health outcomes have traditionally been evaluated by measuring life expectancy at birth. During the 20th and early 21st centuries life expectancy in the UK increased from just under 50 years in 1900 to 79.6 years for males and 83.3 for females in 2019. With each passing decade, life expectancy increased on average by two and a half years.[19] The public health measures driving these improvements included environmental factors, childhood immunisations, the introduction of universal health care, medical advances in treating adult diseases such as circulatory diseases and cancers, and lifestyle changes, especially a decline in smoking.

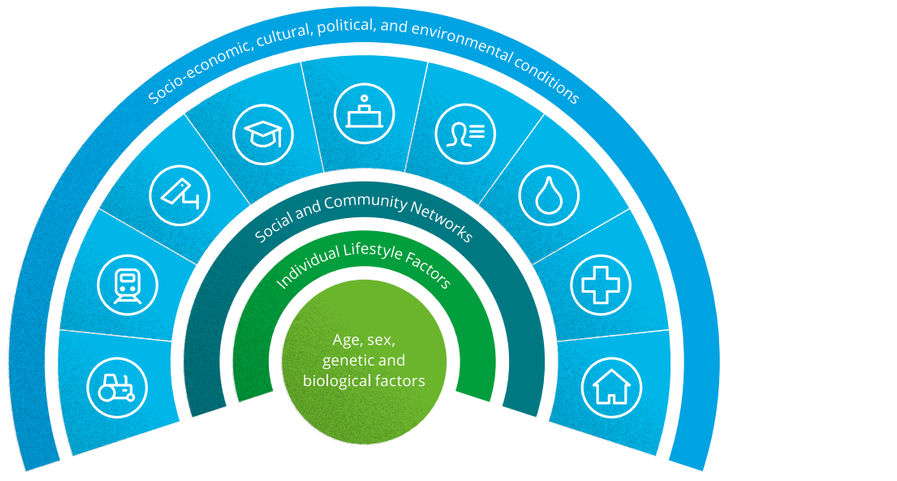
Despite these improvements, the UK has a lower life expectancy and slower rate of improvement in life expectancy than other comparable high-income countries.[20] Moreover, longer life expectancy does not always mean life spent in good health, as increasing numbers of people are living with multiple long-term non-communicable illnesses. Analysis by the Office of National Statistics (ONS) shows that while women have a longer life expectancy, they live fewer years in good health (healthy life expectancy (HLE) fell from 63.7 years (2014 to 2016) to 63.3 years (2017 to 2019)), whereas over the same period HLE for males remained constant at 63.1 years.[21]

These statistics hide huge and growing disparities among different groups of the population. The Index of Multiple Deprivation (IMD) – a tool used to measure the overall relative deprivation of areas, based on income, employment, education, crime, access to housing and services, and living environment – found that in 2017-19 – males in the least deprived decile in England could expect to live on average almost ten years longer and females eight years longer, than males and females in the most deprived decile.[22] Furthermore, those living in the most deprived areas spend nearly a third of their lives in poor health, compared to only a sixth of those in the least deprived areas.[23] These disparities in avoidable health inequalities across and between social classes and population groups, known as the social gradient, show the UK to be a very unequal and unfair society.

Decades of research demonstrate that a lack of access to medical care and unhealthy lifestyles only partially explain these differences in life expectancy and health status. Importantly, only 15-25 per cent of health outcomes are determined by access to healthcare, since health inequalities are shaped by the social determinants of health, the inter-linked social, economic, political and environmental factors, including disparities in the distribution of power, wealth and income at a national and local level (see Figure 1).[24]

There is also a growing consensus that tackling health inequalities is a matter of fairness and social justice. Furthermore, the economic case is clear – COVID-19 has illustrated quite starkly the inextricable link between health and wealth, and action taken to reduce health inequalities will benefit society in a number of ways including a reduction in economic losses associated with illness and premature death and disability. The challenge is to solve the 'wicked problems' driving health inequalities.

Figure 1. The broad social and economic circumstances that together determine the quality of the health of the population are known as the 'social determinants of health'



Note. Social determinants are known as 'the causes of the causes' of ill health, and encompass the range of social, environmental, political and cultural differences that directly or indirectly impact the health of individuals and populations; and are recognised globally as a core dimension of public health policy and practice and are central to action on health inequalities.

Source: Adapted from Dahlgren G, and Whitehead M (1991).

The Marmot reviews: understanding the drivers of health inequalities

In January 2010, Sir Michael Marmot and his team at the University College London Institute of Health Equity (IHE), published the influential and independent review of health inequalities – *Fair Society, healthy lives: The Marmot Review: strategic review of health inequalities in England from 2010.* The review provided a seminal analysis of the steepness of the social gradient in health (the lower a person's social position, the worse his or her health) and exposed the extent of health inequalities in England.

It identified climate change as a fundamental threat to health and that mitigating it would help mitigate health inequalities. The review estimated that health inequalities were costing society £31 billion in lost productivity annually. While the focus was on England the impact of the social gradient was similar in the other three UK countries. The report's recommendations focused on reducing health inequalities by addressing the social determinants of health (SDoH) in a way that is proportionate to the level of disadvantage ('proportionate universalism'). Figure 2 summarises the main messages in the review.[25]

Figure 2. Main messages of the 2010 Marmot Review: Fair Society, Healthy Lives

- Reducing health inequalities is a matter of fairness and social justice.
- There is a clear social gradient in health – the lower a person's social position, the worse their health.
- Health inequalities require action across all the social determinants of health.
- To reduce the steepness of the social gradient, actions must be universal, but with a scale and intensity that is proportionate to the level of disadvantage (proportionate universalism).
- Actions to reduce health inequalities have economic benefits in reducing losses from associated illness (such as greater productivity, higher tax revenues, higher welfare payments and increased treatment costs).
- Fair distribution of health, wellbeing and sustainability are important social goals, requiring social inequalities in health and climate change to be tackled together.
- Six policy recommendations for reducing inequalities:
  1. Give every child the best start in life
  2. Enable all children, young people and adults to maximise their capabilities and have control over their lives
  3. Create fair employment and good work for all
  4. Ensure healthy standards of living for all
  5. Create and develop healthy and sustainable places and communities
  6. Strengthen the role and impact of prevention.
- Delivering policy objectives requires actions by central and local government, the NHS, public health agencies, the third and private sectors, and community groups; and effective local delivery systems focused on health equity in all policies.
- Effective local delivery requires effective participatory decision‐making at local level. This can only happen by empowering individuals and local communities.[26]

Source: Fair society, healthy lives: the Marmot Review: strategic review of health inequalities in England post‐2010

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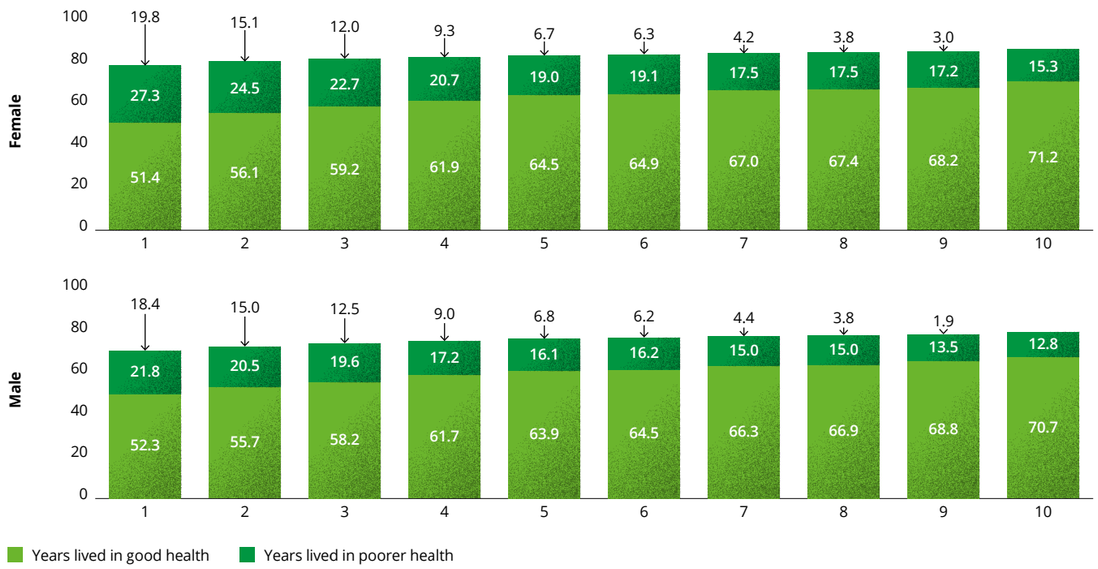
In 2020, the Health Foundation commissioned the IHE to undertake a follow-up report as part of its COVID-19 impact inquiry. The IHE report *Health Equity in England: The Marmot Review Ten Years On* found that since 2011, improvements in life expectancy have slowed dramatically, but the gaps in healthy life expectancy between wealthy and deprived areas have widened (see Figure 3). In general, poorer communities, women, and those living in the North have experienced little or no improvement in life expectancy since 2010 and it has fallen among the poorest ten per cent of women and some ethnic minority groups. The report concluded that this is due mainly to 'a lack of progress in addressing unjust and avoidable differences in people's health and wellbeing'. While the report is concerned with England, other IHE research in Scotland, Wales and Northern Ireland shows very similar patterns.[27]

The 'Ten Years On' review also evaluates how policies enacted by UK governments since 2010 have affected this increase in health inequalities.

It highlights the damage caused by rising child poverty, the closure of children's centres, reductions in per-pupil education spending, an increase in poorly paid work including zero hours contracts, a lack of affordable housing, multi-generational and overcrowded housing, and reductions in adult social care.[28]

The 2020 review also built on the concerns expressed in 2010 around climate change and emphasised the growing body of evidence on its contribution to the global burden of disease and the need for action. It notes that climate change is resulting in poorer health outcomes, increased mortality (particularly from respiratory diseases) and is a driver of health inequalities. Moreover, at least 11 of the UN's 17 Sustainable Development Goals relate to the social determinants of health.[29] The report identifies numerous actions being taken at the national and local level in the UK including case studies showing how the impact of climate change can be mitigated. However, it acknowledges that the risks from failing to improve inequalities remains high and that there is a need to bring together the agendas on climate change, the social determinants of health and health equity.[30]

Figure 3. Healthy life expectancy at birth, by decile of deprivation, in England, in 2017 to 2019



Note: Deprivation decile: 1 – most deprived and 10 – least deprived; arrow indicates 'years lived in good health' difference from least deprived decile

Source: Office for National Statistics (ONS), 2021.

Who is responsible for public health services?

The field of public health is diverse and interdisciplinary. While policy responsibility rests ultimately with central and local governments, delivery of public health services involves DsPH and their teams together with a wide range of public and private stakeholders (see Figure 4).

The main responsibility for addressing public health is vested in DsPH and their teams, comprising public health consultants, public health nurses and other public health practitioners (PHPs). The core purpose of the DsPH is as an independent advocate for the health of a population and system leadership for its improvement and protection. DsPH and their teams have a key responsibility for protecting and improving the health of their communities, including infectious disease control. Moreover, DsPH knowledge of and expertise in population health and close understanding of local places and resources, together with their broader role in local authorities, should put them at the centre of local decision-making on public health issues, including addressing health inequalities.[31]

Public health teams also require enough people with the knowledge and skills to undertake surveillance, population health management, research and evaluation (including analytics); design and deliver intervention programmes; engage and empower the public; and provide targeted support packages. However, in recent years the workforce supply, especially of public health consultants, has become a significant constraint and requires a new public health workforce strategy.[32] There is also a need to develop the wider workforce in primary and place-based care with a broader expertise in tackling public health.

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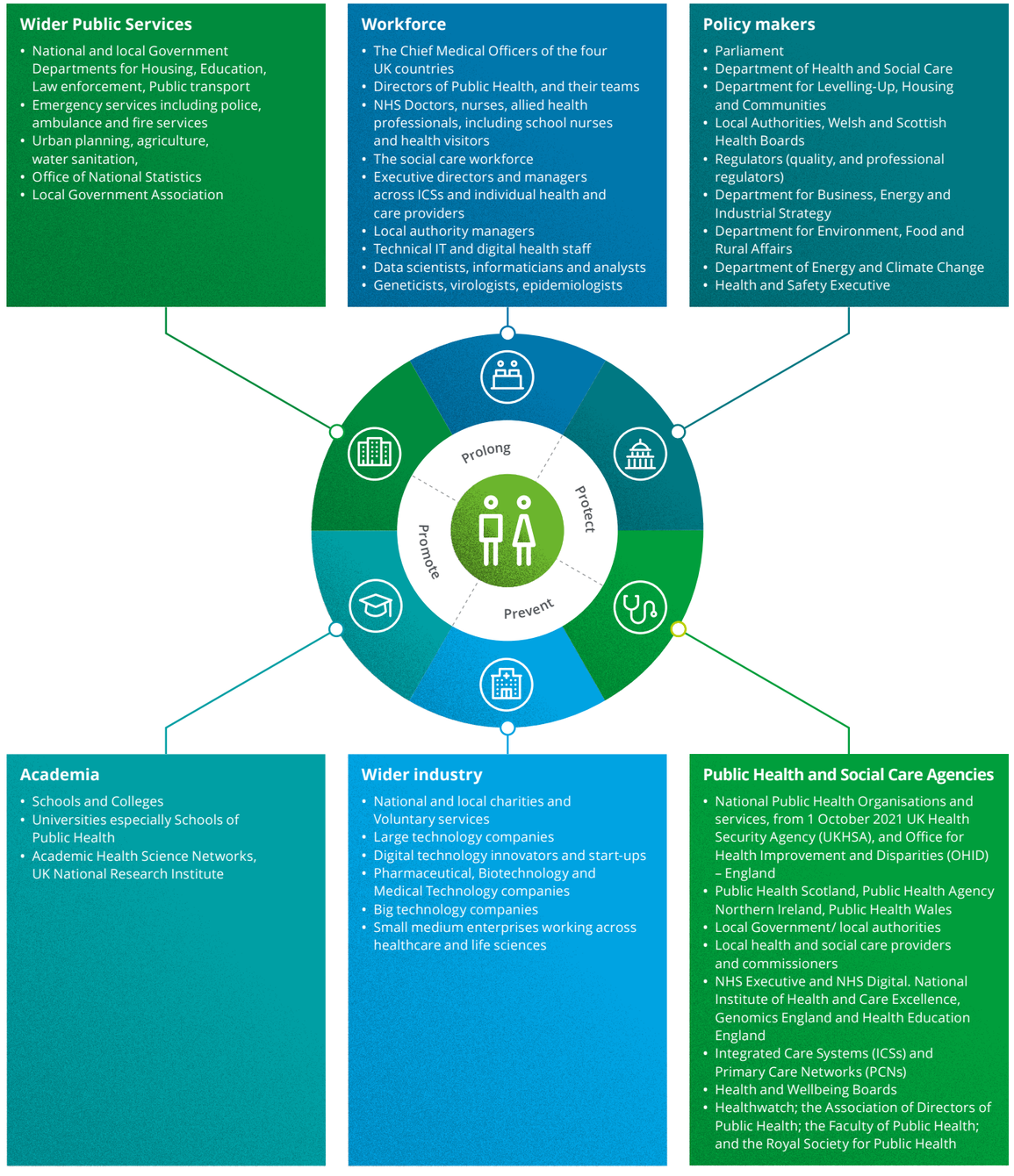
Figure 4. Examples of the wide range of stakeholders involved in the public health functions



Source: Deloitte LLP.

Recent reforms to public health in the UK

Successive UK governments have played a central role in trying to improve public health. However, in general there has been an underestimation of the consequences of pursuing short-term objectives and targets and a limited commitment to long-term funding, as well as the sheer complexity of the actions needed, and the extent of the challenges facing the agencies responsible for public health. One of the more contentious issues is the complex area of personal behaviour and the cultural attitudes of citizens with regard to issues such as smoking, and drug and alcohol abuse.

While each UK nation has a national public health agency, they have differing maturities. For example, Scotland's has only been in place formally since 2020. Furthermore in Wales and Scotland, DsPH remains primarily part of NHS structures rather than local authorities', while in Northern Ireland there is no direct equivalent of a DsPH due to its small scale as a nation. The size of the other nations also means that the 'link' between national and local policy, practice and decision-making is shorter, which affects the nature of decision-making, who makes the decisions, how they are reached and the speed with which they are reached. Meanwhile Scotland, Wales and Northern Ireland have maintained a more centralised NHS-led public health approach (see Figure 5).

The 2012 policy reforms in England

In England, the most definitive change in legislation affecting public health over the past 25 years has been the Health and Care Act 2012. This:

- established Public Health England (PHE) as an executive agency of the Department of Health, to protect and improve the nation's health and wellbeing and reduce health inequalities, support the public health system, and protect the public against major risks
- gave local authorities new legal responsibilities and accountability for health improvement and prevention, protection and promotion. Specifically, local authorities took over responsibility from the NHS for the provision of a range of public health services as well for wider health issues such as protection from outbreaks of infectious disease.[33]

Supporting policy documents for the 2012 Act envisaged clinical commissioning groups (CCGs) and local authorities jointly leading the local health and care system, through health and wellbeing boards (H&WB). Local H&WB were required to collaborate with their communities to prepare joint strategic needs assessments (JSNAs), putting localism into action to improve services, make lives healthier and provide a better experience of the health and care system.[34]

However the 2012 reforms took a more siloed approach to public health, making collaborations and joined-up approaches more difficult.

The reforms and transfer of responsibility and funding for most public health services to local authorities from April 2013 has been subject to much scrutiny, but most observers generally agree that the move was the right one. A King's Fund report in January 2020 identified improvements in commissioning and modernisation of services but found that the changes led to 'major organisational and cultural challenges in the early years, and significant loss of staff, including the retirement or resignation of many DsPH. Since mid-2015 onwards, cuts to the ring-fenced budgets have led to fragmentation of commissioning and the level of services provided. The King's Fund report called for stronger joint commissioning, for example using pooled budgets and rewards sharing, to help tackle the 'incentive trap'.[35] Over this time frame, there have been wide variations in the size and composition of public health teams and in their ability to influence local authorities.

NHS policy developments affecting public health

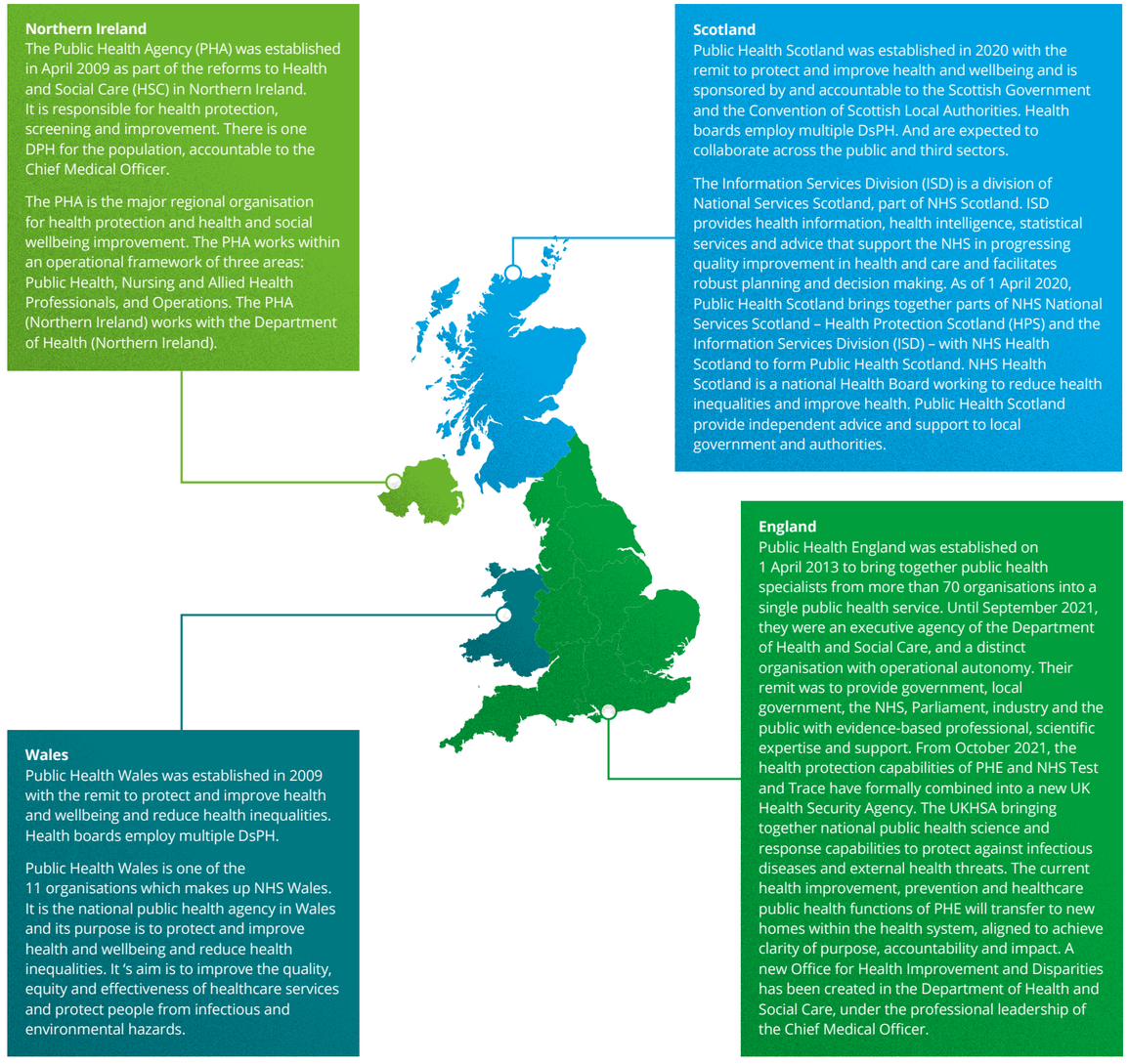
In the past six years, there have been a number of more general policy developments in England, that have been focused on a progressive move towards the integration of health and social care, with a growing emphasis on prevention to improve public health, including:

- *NHS Five Year Forward View (June 2014)*[36]
- DHSC policy paper *Prevention is better than cure: Our vision to help you live well for longer (November 2018)*[37]
- *NHS Long Term Plan (LTP), February 2019*[38]
- *Advancing our health: prevention in the 2020s* – green paper consultation document, July 2019.[39]

While these policies were predominantly focused on the NHS, they all highlighted the importance of prevention. Moreover, the DHSC 2018 paper emphasised the importance of improving public health and made a specific commitment to improve healthy life expectancy so that: *'by 2035, there is an overall gain of a least five extra years of healthy, independent life, and the gap between the richest and poorest has been reduced through making prevention a priority'.*

Identifying the gap: Understanding the drivers of inequality in public health

Figure 5. The roles and responsibilities for public health across the United Kingdom



Sources: Deloitte analysis.

Since 2019, support for integration of health and care in England has gained momentum, with the NHS requiring all healthcare providers to become part of one of 42 geographically based Integrated Care Services (ICSs). In November 2020, NHS England and NHS Improvement (NHSE&I) published 'Integrating care: next steps to building strong and effective integrated care systems across England'.

This set out a series of steps towards integrated care. It expects integration to be enhanced through effective positioning of social care within the ICS structure, and a new standalone legal basis for the Better Care Fund and 'Discharge to Assess' models.[40] During 2021 the government has focused on getting the necessary legislation in place to establish ICSs as legal entities by April 2022 (the Health and Care Bill had its first reading in July 2021).[41]

The state of public health funding

In line with the move in 2012 to give local authorities responsibility for most aspects of public health, funding has been allocated through the 'public health grant'. Some services are mandated, others are up to local discretion, and funding can be used flexibly.

In 2016, a Health and Social Care Select Committee (HSCSC) report found that:

- public health departments have faced real-term budget cuts but increased responsibilities, requiring them to 'try to deliver more with less'
- due to funding cuts, mandated services were consuming an increasing majority share of the available funding
- there was a growing mismatch between spending on public health and the significance attached to prevention in the NHS Five Year Forward View.[42]

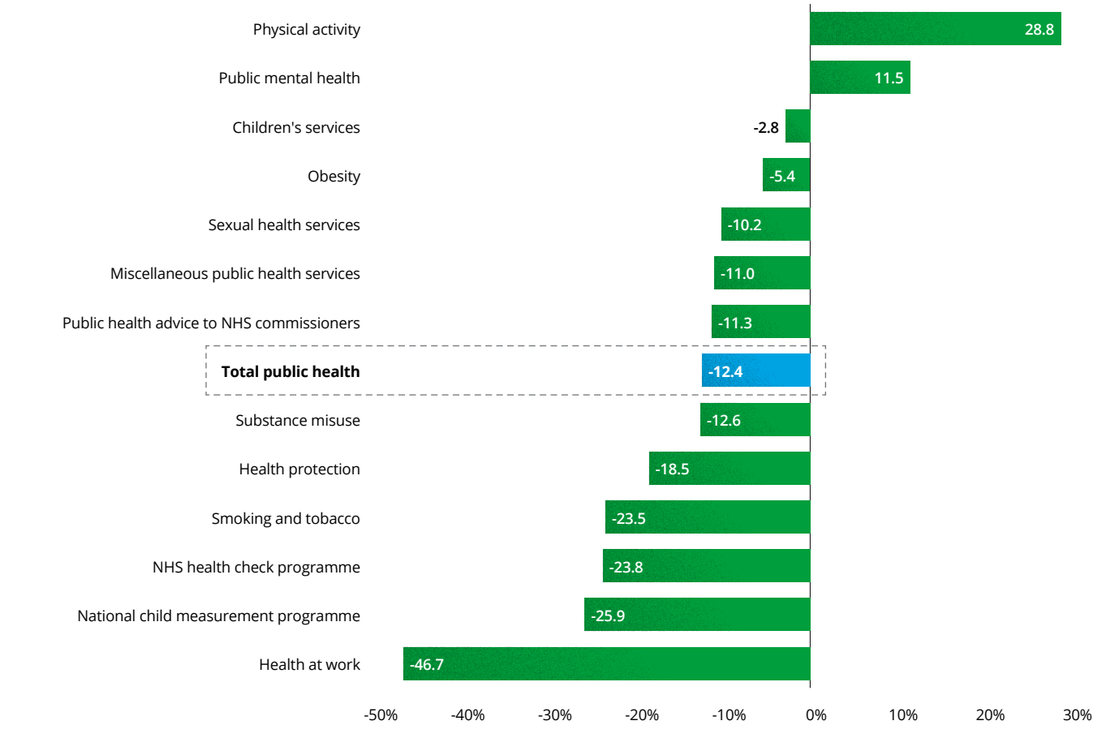
Since then reductions in the public health grant have continued, and by 2019-20 (at £3.3 billion, it was 15 per cent lower than in 2013-14). While spending on public mental health services and promoting physical activity have increased, funding for other services including health protection, sexual health clinics, stop smoking support, children's health visitors, and health at work have been cut. For example, an analysis by the Royal College of Psychiatrists identified real terms cuts to youth addiction services in England 2013-14 and 2019-20 of £26 million (37 per cent), with cuts in eight of the nine regions and services in the north west (£9.3m), the west Midlands (£7.6m), and London (£4.6m) hit hardest.[43]

An analysis by the King's Fund (Figure 6) shows how the different public health services have been affected by funding cuts between 2016-17 and 2021-21.[44]

Over the past five years or so, a number of public health services that are directly commissioned by the NHS have seen their budgets reduced. These include immunisation and screening, and the PHE operating budget. Another important area of budget cuts, given the rise in child poverty in the UK, is the total amount of local authority expenditure on children and young people's services which declined by 48 per cent between 2010-11 and 2019-20, contributing to the closure of almost 1,000 children's centres and 750 youth centres since 2009. At the same time, late intervention services in areas like youth justice increased by 34 per cent, illustrating the false economy of cuts to preventative services, which increase downstream costs.[46]

Counterintuitively, the funding cuts between 2010-11 and 2019-20 were deeper in the most deprived local authorities, driving geographical inequalities still further. For example, while spending per young person increased by seven per cent in the least deprived local authorities in England, spending in the most deprived local authorities declined by 14 per cent. Moreover, the wider reductions in local authority budgets since 2010-11 have also had an impact on other services that affect the health and wellbeing of the population, such as housing, transport, leisure centres and green spaces.[47] This is despite the fact that analysis by the King's Fund (and others) shows that 'the return on investment from public health interventions is high and creates economic, social and personal value'.[48]

Figure 6. Percentage change in public health spending 2016-17 to 2020-21, cash terms



Source: The King's Fund, from its report Spending on public health (January 2021).

The public health challenges pre-pandemic

The 2012 reforms of public health in England led a more siloed, fragmented approach to public health accompanied by significant cuts in funding – at the same time as the public health needs of the population increased in scale and complexity.

As part of our research we conducted a survey of some 1,500 front line health and care professionals and interviewed some 75 public health experts (see Methodology annex in the overview report).[49] We asked both the survey respondents and our interviewees to identify the top three challenges they saw in creating an effective public health system before pre-pandemic (see Figure 7).

Figure 7. Prior to the COVID-19 pandemic, what were the top three challenges the UK was facing to create an effective public health system?

Survey respondents

1. Meeting an increasing healthcare demand from expanding ageing populations (42.8%)
2. Tackling health inequalities (39.7%)
3. Keeping pace with rising complexity of need in ageing populations (32.4%)
4. Meeting an increasing social care demand from expanding ageing populations (32.3%)
5. Addressing variations in standard of care provided by the NHS (32.2%)
6. Improving integration and coordination of the health and care system (27.1%)
7. Accessing social care support (23.5%)
8. Addressing the backlog of elective procedures (20.7%)
9. Achieving parity of esteem between physical and mental health (19.9%)
10. Aligning funding incentives to deliver priorities (11.9%)

Note: Multiple choice question; percentage represents proportion of total respondents selecting a particular option.

Interviewees

1. **Funding (58%)** – Lack of funding, budget cuts, and variation in prioritisation of investment in public health.
2. **Health inequalities (40%)** – Deep seated intractable health inequalities with public health leaders having variable influence over the social determinants of health and limited agreement among national and local politicians on how to tackle them.
3. **Fragmentation and silos within and between local authorities and the NHS and other stakeholders (38%)** – Fragmentation between public health and the NHS, as well as fragmentation and siloes between and across the health ecosystem, and a lack of integration with other stakeholders, such as academia.
4. **Data (cultural and systematic issues) (21%)** – Cultural and structural issues around data sharing- including lack of or restricted access, interoperability problems and gaps in surveillance and data gathering.
5. **Strategy/approach (21%)** – Lack of data-driven strategies and outcomes-based approaches, short termism due to lack of leadership strategic long-term and enduring approaches to address health inequalities.

Note: 74% of our 67 public health interviewees answered this question.

Source: Deloitte analysis of survey of 1,504 health care professionals conducted by M3 between 21-28 April 2021. Survey and interview question: Prior to the COVID-19 pandemic, what were the top three challenges the UK was facing to create an effective public health system?

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Whereas the largest percentage of interviewees identified funding cuts, deep-seated health inequalities, and fragmentation and lack of alignment between services as the biggest challenges; our survey respondents focused more on the impact of an expanding and ageing population. This suggests that front line staff are more likely seeing the downstream impact of failing to provide sufficient health prevention and interventional support for particular groups of the population. Both survey respondents and interviewees commented on the need for a population health prevention approach to tackle the needs of specific population groups.

We also developed a word cloud of interviewees' responses on the top three challenges (see Figure 8). This illustrates that while the sentiments were predominantly negative, there were some positives, specifically collaboration and prevention, and (less frequently) mentioned awareness and behaviour change.

Figure 8. What were the top three challenges the UK was facing in creating an effective public health system prior to the COVID-19 pandemic

Responses from interviewees

Top 60 word view

Question: Prior to the COVID-19 pandemic, what were the top three challenges the UK was facing in creating an effective public health system?

Source: Deloitte interviews of public health stakeholders conducted between 6 April-19 July 2021.

Some of the other more frequently mentioned comments by interviewees about the challenges facing public health pre-COVID-19 include:

- The growing gap between demand and availability of resources: many commented that despite general support for the decision to transfer responsibility for public health to local authorities, which they believed improved value due to more effective and targeted commissioning, this is now being undermined by a mismatch between demand and funding. Moreover, interviewees considered that mandatory services were consuming a larger proportion of the available resources, leaving fewer resources for initiatives aimed at tackling health inequalities, particularly prevention. This has also resulted in trying to solve problems after they have arisen rather than intervening earlier to prevent them from happening.
- Constrained workforce capacity: as the initial move of public health staff into local authorities led to problems in retention and later recruitment which has led to variations in the size, skills and experience of public health teams. Moreover, variations in the authority of DsPH were highlighted as a reason for the challenges they have faced in being able to influence over other parts of local government.
- A general lack of awareness of public health among colleagues across other parts of local government and also the NHS, and limited success in achieving the ambition of 'health in all policies'. This has undermined the ability of public health teams to influence other agencies such as transport, education and local planning.

The role of DsPH

During our interviews we explored more fully the challenges faced by DsPH pre-pandemic and the varying degree of influence that they had over their local authority's decision making. Interviewees suggested that this was partly linked to the position of DsPH within their local authority's organisational structure and their seniority and length of time they had been in post. While some had a role and statutory responsibilities as part of the executive management team, others were positioned at a lower level, in some cases under other directors in the council. Respondents mentioned that being removed from the decision-making table, and especially if you were relatively new to the role, reduced the extent of influence over competing priorities, and meant that public health was not always as high on the agenda as it needed to be.

The impact of COVID-19 on the public health system

The indiscriminate nature of COVID-19 and the resulting pandemic has had a profound effect on most people's lives and livelihoods. While the scale and pace of the disruption caught most governments by surprise and exposed the unequal impact of health inequalities on health outcomes for specific groups of the population, the pandemic has changed irrevocably how the public perceives health threats and their understanding of the crucial role played by public health.

Healthcare providers, local authorities and the voluntary sector had to respond rapidly to the challenges faced by their communities, by adapting how they delivered public health services. Since the end of the first lockdown in May 2020, the NHS has had to adapt to managing COVID-19 patients alongside trying to deliver emergency, elective and primary care services, while public health teams supported care homes, homecare services, schools, leisure facilities, and local businesses, in adapting through two further lockdowns and a plethora of changing rules, regulations, and mitigation strategies.

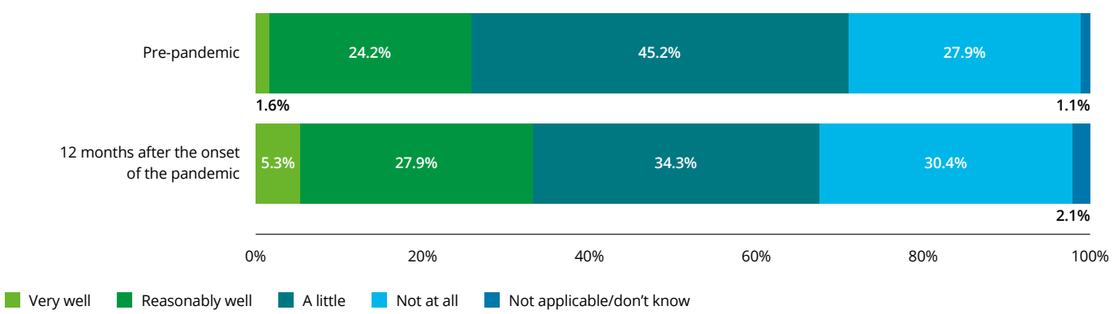
Preparedness to tackle the pandemic

We asked survey respondents for their views about how well prepared the government was to tackle the public health challenges both before and 12 months into the pandemic (see Figure 9). Only 2 per cent thought the government was well prepared, and 24 per cent thought that it was reasonably well prepared before the pandemic, slightly less than the 28 per cent thinking it was reasonably or well prepared 12 months later.

We also asked our survey respondents for the top three words that came to mind when describing the impact of the pandemic on public health (see Figure 10). Their responses in many ways reflect their front-line experience and are consistent with the growing body of evidence about the impact the pandemic is having on the NHS and social care workforce.

While the problems of stress, anxiety, depression and workforce burnout existed pre-COVID-19, the pressures experienced during the pandemic has greatly increased the extent of these problems, exacerbated by the trauma and heartbreak of dealing with an unprecedented level of excess deaths among patients, social care users and colleagues.[50] While the NHS and local authorities put in place a raft of physical and mental health support measures, the legacy of the pandemic on staff health and wellbeing will be felt for some time. This will require concerted efforts by employers to address the ongoing physical and mental health challenges to improve the resilience and sustainability of the health and care workforce.

Figure 9. Views of survey respondents on the government's preparedness to tackle the public health challenges prior to and 12 months into the pandemic



Survey question: a. Prior to the COVID-19 pandemic, how well prepared was the government to address these public health challenges? b. How well prepared is the government to address these public health challenges now (12 months after the first lockdown)?

Source: Deloitte analysis of survey of 1,504 health care professionals conducted between 21-28 April 2021.

Figure 10. What three words come to mind when you think of the impact of the pandemic on public health?

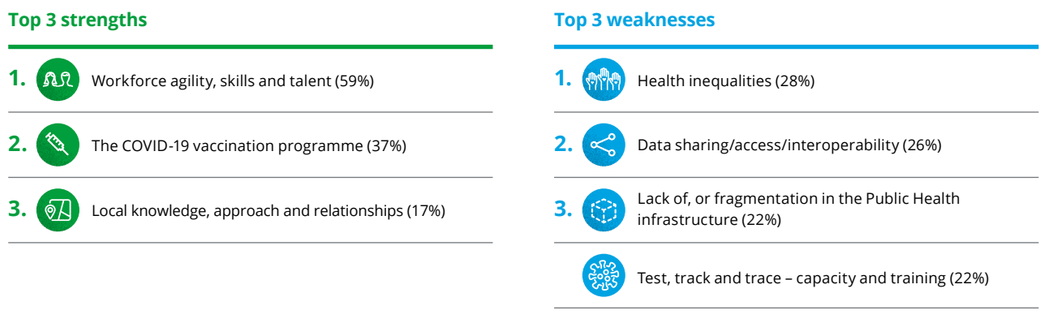
Question: What three words come to mind when you think of the impact of the pandemic on public health?

Source: Deloitte analysis of survey of 1,504 health care professionals conducted by M3 between 21-28 April 2021.

Our interviewees considered that the ability of public health to respond in the initial phases of the pandemic reflected the challenges that already existed, notably their capacity and capability to meet the growing needs for services and reduce health inequalities. Their initial lack of access to health data, underfunding, and the fragmentation of the public health infrastructure were seen as impediments to an effective response, for example in tracking and tracing the disease. Our interviewees highlighted how the pandemic prompted many bold and innovative responses and demonstrated the agility, skills and talent of DsPH and their local public health teams and the increase in collaborative working between the NHS, social care and public health staff. Most cited the impressive development and rollout of COVID-19 vaccines. They also identified the enhanced appreciation of the role of the voluntary and charitable sectors, including the increase in partnership working.

We asked our interviewees what strengths and weaknesses in public health were revealed by the pandemic? The most frequently mentioned strengths was the resilience, agility, skills and adaptability of the workforce, followed by the approach to and speed of rollout of the vaccination campaign, and public health teams' ability to draw on local knowledge and relationships (see Figure 11). Other recognised strengths were the targeting of solution following improvements in the extent and quality of data from the summer of 2020 onwards, local contact tracing, surveillance, and genomic capabilities, as well as the growth in community and voluntary sector collaborations. Some responses also mentioned that a 'silver lining' was the greater awareness and appreciation of the role of public health – both in government and among the public.

Figure 11. The views of Interviewees on the strengths and weaknesses that the COVID-19 pandemic exposed in the public health system



Interview question: a. What were the strengths of the public health system that helped the response to the COVID-19 pandemic? (63% of interviewees answered this question). b. What weaknesses has the COVID-19 pandemic exposed in the public health system? (71% of interviewees answered this question)

Source: Deloitte analysis of interviews of public health stakeholders conducted between 6 April-19 July 2021.

When it came to weaknesses exposed by the pandemic, the most frequently mentioned by interviewees were health inequalities, followed by problems in accessing and sharing data (particularly in the first wave), the fragmentation of the infrastructure and the difficulties with the central test, track and trace system. The next most frequently mentioned weaknesses were the lack of capacity of the public health workforce and inadequate and confused communication between central and local government, including restrictions during the first lockdown that constrained the opportunities for public health teams to communicate effectively with their local communities.

"Vaccinations have been phenomenal. That kind of decentralised approach has been quite successful - they activated local community systems - churches, mosques, Hindu temples, hospitals and car parks have been used – they really leveraged touchpoints, where the public want to come and see them and delivered health care; whereas track and trace was centralised."

Director of Public Health

Many interviewees highlighted the mixed messages and lack of a robust evidence base for mitigation strategies that the government expected the public to follow, which hampered the work of public health teams. A number of interviewees questioned the government's decision to dismantle the public health system in the middle of a pandemic. A key issue that emerged, time and again, was the under-resourcing of public health, including the lack of population health management (PHM) and analytical capabilities.

"There was a lot of advice to say we mustn't just test, we must test, trace, isolate and then support people with their needs."

Chief Information Officer

Interviewees considered that other public health challenges that need to be addressed as a matter of urgency were:

- geographical variations in access to and quality of care
- short term strategies that fail to tackle long standing issues
- the important contribution provided by the voluntary sector who face reductions in (mostly short-term) funding
- lack of preparedness for the next pandemic
- improving trust in public authorities, especially the government and in vaccination take-up rates for some groups.

What was evident from all our interviews was that in responding to the pandemic, DsPH had to balance a formal role in the local public health system (helping to guide and shape the response within regional and local emergency structures and committees) and a broader role in engaging local communities, facilitating support and acting as a system navigator within the broader response.

"Test and trace was an underestimation of the infrastructure that was already there in public health."

Public health leader

When interviewees were asked about the capability gaps that needed to be addressed, the most frequently mentioned was public health expertise, which they considered had declined due to retirements and an inability to retain and recruit staff, resulting in a loss of knowledge (organisational memory) and a skills deficit. In addition to consultants in public health, the most notable skills gaps mentioned were social prescribers, data analysts, geneticists, scientists, technologists, and behavioural scientists.

Concerns were also raised about health and care staff's lack of awareness of or training in public health, underfunding and inadequately targeted funding, problems with interoperability and access to data and the difficulties faced by public health teams in tackling health inequalities due to difficulties influencing other areas such as housing and local planning. A selection of quotes on this question are highlighted below.

We need to increase the social prescribing workforce. We have 14 social prescribers for a population of over 350,000, yet such a big emphasis is put on it. The NHS has no capacity for social prescribing. The voluntary sectors provide capacity for social prescribing.

Public Health Consultant

There is a distinct lack of, health in all policies' approach.

Director of Public Health

Complex problems require complex teams.

Senior policy maker

Political leaders are not viewing health and wellbeing as an asset but as a drain.

Strategy Director

The vaccination campaign shows what the public health system can do if it needs to roll out an intervention rapidly.

Senior Manager

There's a gap in the health practice, in CCGs and the new ICSs – in terms of skills and workforce and awareness of public health – the shift to local authorities has left a vacuum in capabilities.

Medical Director

We need more funding of people, we need to train them and to attract others by providing a positive work experience and development opportunities.

Policy Director

COVID-19 has exacerbated health inequalities

When looking at the impact of the pandemic more widely, what is clear is that COVID-19 has been instrumental in exposing the undeniable impact of health inequalities on health outcomes for specific groups of the population. There was also a great deal of confusion over roles responsibilities and accountabilities, along with wide variations in service provision. It also exposed the UK as a deeply unequal society and highlighted the critical need to tackle the social determinants of health more effectively.

The role and responsibilities of public health teams during the pandemic has played out daily across all media outlets, raising its profile, and the public's understanding of health inequalities and the difficulties in tackling the unequal effects of the virus on different groups. For those working in public health, it became clear that this was their 'moment in the sun', specifically, that the skills and local knowledge of DsPH and their teams, in matters such as population health, epidemiology and infection prevention and control, was critical to the local response. DsPH knowledge of local resources also helped to identify and target interventions to support high risk groups, implement contact tracing and support the roll out of the vaccine. Their role in local government also put them at the centre of local decision-making.

In July 2021, the Health Foundation's COVID-19 impact inquiry, *Unequal pandemic fairer recovery*, which also drew on the findings from IHE's published research – *Build Back Fairer: The COVID-19 Marmot Review*, provided a comprehensive review of the factors that fuelled the UK's COVID-19 outcomes.[51,52] Notably, that while inequalities in COVID-19 mortality rates follow a similar social gradient to that for all causes of death, and health behaviours contribute to the causes of non-communicable diseases (NCDs), the social determinants of health are themselves causing inequalities in health behaviours.[53]

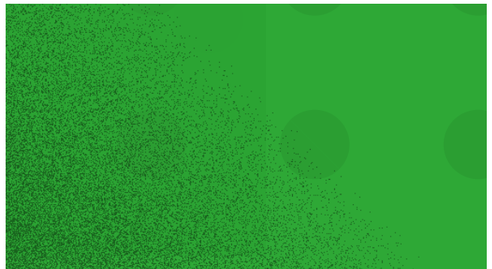
The Health Foundation inquiry demonstrated that COVID-19 amplified the inequalities observed in the '*Marmot 10 Years On*' report and that the economic harm caused by containment measures (lockdowns, tier systems and social isolation measures) has damaged health and widen health inequalities, still further.[54]

It also confirmed weaknesses in the UK's public health systems, including the impact of 'serious underfunding and neglect', and called for 'urgent attention, investment and reform'. It highlighted the entrenched inequalities between different population groups and found that the areas of the country and groups of people most affected by the virus, are the same groups of people that had the worse health outcomes before the pandemic. Importantly, it calculated the overall fall in life expectancy in 2020, which for males fell to 78.7 years (a 0.9-year reduction) and for females to 82.7 years (a 0.6-year reduction) compared to 2019. These falls reverse the trend in gains over the previous decade.[55]

Lockdowns, and the damage caused to public finances, education, employment and financial security, such as school closures, zero-hours contracts and job losses, have affected people from disadvantaged backgrounds more than other groups of the population. These same groups of people are less likely to have been able to make effective use of digital health solutions and the wider digitalisation of public services. Consequently, without urgent action, inequalities in health and other social and economic inequalities will increase still further. Indeed, projections by the Office of National Statistics (ONS) are that from March 2020 for at least the next five years, the impact of lockdowns and the economic situation in the UK are likely to reduce health in England by over 970,000 Quality Adjusted Life Years (QALY).[56]

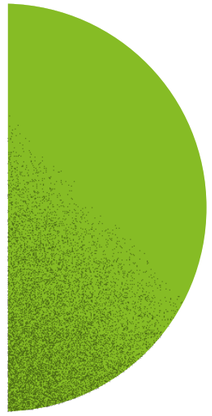
A striking feature that warrants specific attention, is the high mortality rate of members of Black, Asian and minority ethnic groups. Much of which can be attributed to living in more deprived areas, working in higher-risk occupations, living in overcrowded conditions and, in the case of Bangladeshi and Pakistani groups, a greater prevalence of relevant pre-existing conditions.[57]

Both the inquiry and Marmot's '*Build Back Fairer'* report highlight that here is an imperative to address the fundamental cause of social injustice. The pandemic needs to be seen as an opportunity to build a fairer society by putting equity of health and wellbeing into all policy making, with particular attention to the 'causes of the causes' of health inequalities.



Achieving an equitable future for public health

COVID-19 has exposed multiple public health challenges, but has also demonstrated the value of local knowledge, the importance of existing relationships and the need to bring together people from different parts of the system. Public health now has an opportunity to capitalise on the innovations and other positive developments adopted during the pandemic. Realising a sustainable future, will require adequate funding, investment in leadership development and building workforce capacity and capability, and for public health be fully recognised and valued as an integral component of the new ICSs, harnessing their knowledge of place-based solutions and population health management skills.



The 2021 reform of the public health system

In September 2020, the UK Government announced plans for reforming public health.[58] While DsPH and their teams will remain part of local government, it planned to strengthen NHS England's focus on prevention and population health and transfer important national capabilities to it that will help drive and support improved health as a priority for the whole NHS. Importantly, in March 2021, it setting our plans for the new Health Act 2022, which will establish ICSs as legal entities, confirmed its decision to close PHE and for its public health functions to be split across two new areas, to be fully effective from 1 October 2022.[59]

- The health protection capabilities of PHE and a new NHS Test and Trace service (NHST&T) (including the Joint Biosecurity Centre) to combine into a new UK Health Security Agency (UKHSA). The UKHSA, which became fully operational on 1 October 20221, bringing together the UK's national public health science and response capabilities to protect against infectious diseases and external health threats. It will undertake functions in 5 core areas: 'Prevent, Detect, Analyse, Respond, Lead'. It is expected to work in partnership with wider central government, the devolved administrations and public health agencies for Scotland, Wales and Northern Ireland, local authorities, the NHS, academia and industry to provide effective preparation and response to the full range of threats to health and strengthen the health protection system and workforce.[60]

  The current health improvement, prevention, and public health functions of PHE has formed a new Office for Health Improvement and Disparities (OHID), part of the Department of Health and Social Care (DHSC), under the professional leadership of the Chief Medical Officer.[61] The OHID is expected to lead a cross-government effort to address the wider factors that contribute to people's health outcomes, recognising that health problems often depend on issues like job status, quality and location of housing, environment, education and food insecurity. The OHID is also expected to have a 'relentless focus' on health inequalities as part of the government's 'levelling up' agenda.

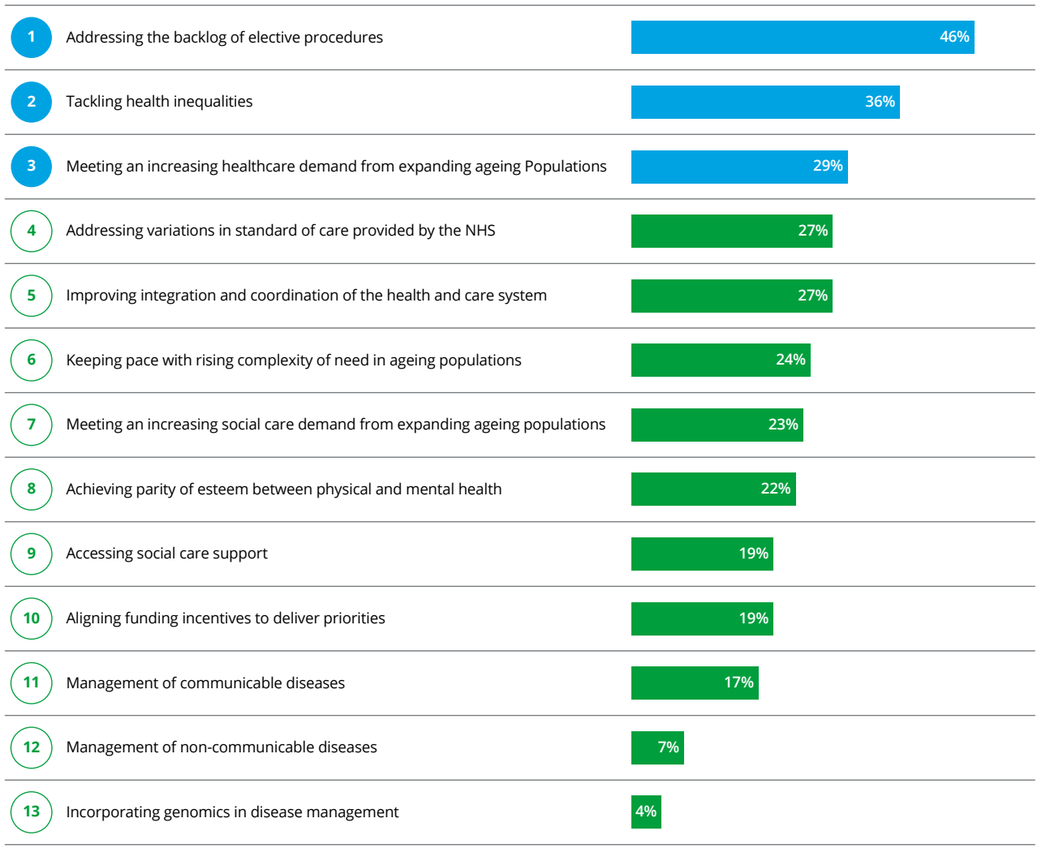
Our interviewees generally welcomed the renewed focus on public health but raised some concerns of the need to engage with local public health expertise. They also called for greater clarity on funding and workforce plans. Furthermore, they identified benefits from the growing relationship between DsPH and the Chief Medical Officer during the pandemic in cementing the link between the national and local levels. As the public health reforms move forward, maintaining and strengthening this link is likely to be important for providing constructive feedback to national organisations on their impact at the local level.

Challenges that need to be addressed over the next three years

We asked our survey respondents what they considered to be the top three challenges facing the UK public health system over the next three years. Unsurprisingly there were many similarities with the challenges faced before the pandemic, although some new challenges were mentioned.

These included, addressing the backlog of elective procedures, addressing variations in care, and improving integration and coordination of the health and care system (see Figures 12). There were also some interesting differences in priorities between the different groups of respondents (see Figure 13).

Figure 12. Survey respondents views on the top three challenges the UK faces over the next three years in creating an effective public health system



Survey question: As we emerge from the pandemic, what are the top three challenges the UK faces over the next three years, in creating an effective public health system?

Source: Deloitte analysis of survey of 1,504 health care professionals conducted by M3 between 21-28 April 2021.

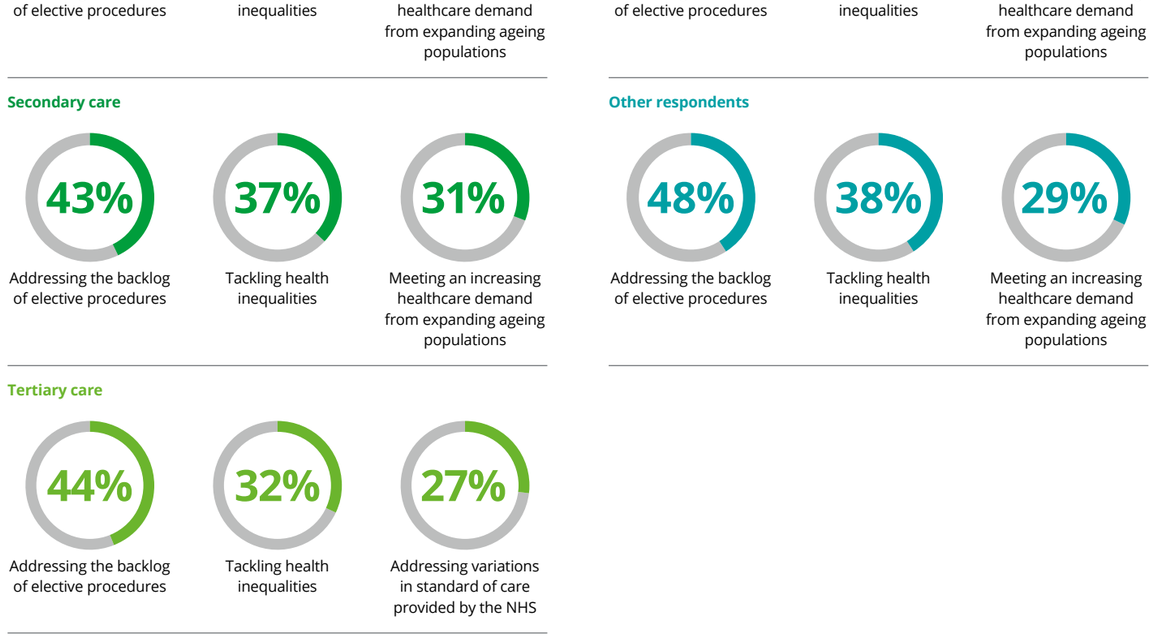
Identifying the gap: Understanding the drivers of inequality in public health

We also asked our interviewees what three things would they prioritise to help tackle the public health challenge during recovery, unsurprisingly funding was the top priority (33 per cent), with several mentioning the comprehensive spending review as an opportunity to target funding at the specific groups of people.

Workforce skills and talent was second (29 per cent), followed by inequalities and permission to proactively tackle the social determinants of health. Biosecurity and infection control (13 per cent); and prevention (11 per cent) were the next priorities.

Figure 13. As we emerge from the pandemic, the different groups of survey respondents identified slightly different challenges that needed to be prioritised over the next three years

By sector



Survey question: As we emerge from the pandemic, what are the top three challenges the UK faces over the next three years, in creating an effective public health system?

Source: Deloitte analysis of survey of 1,504 health care professionals conducted by M3 between 21-28 April 2021.

Securing the future of public health

COVID-19 has tested the government's ability to deal with unforeseen events and exposed the impact of the social gradient on the ever-widening health inequalities gap. It has shone a spotlight on the role that poor and overcrowded housing, insecure employment and food insecurity can have on public health, but that behavioural and attitudinal shifts in health behaviour are possible. It has also highlighted the valuable role of the public health workforce. There is a clear opportunity to capitalise on the public's understanding of the role of public health in health protection, prevention and promotion and to create a public health system that is dedicated to improving health outcomes for all.

The evidence base on the causes of health inequalities is irrefutable, as is the understanding that even well-designed policies could take years to have a meaningful effect. Consequently, reducing health inequalities and improving life expectancy for all will require a long-term, multi-faceted approach. This will require public health providers to have more certainty of funding and longer commissioning cycles. Longer funding cycles would also encourage collaborative commissioning, especially with the voluntary and charitable sectors, and lead to service stability and improvements in the quality of public health services.

A crucial priority is investing in the future of the public health workforce, which will require:

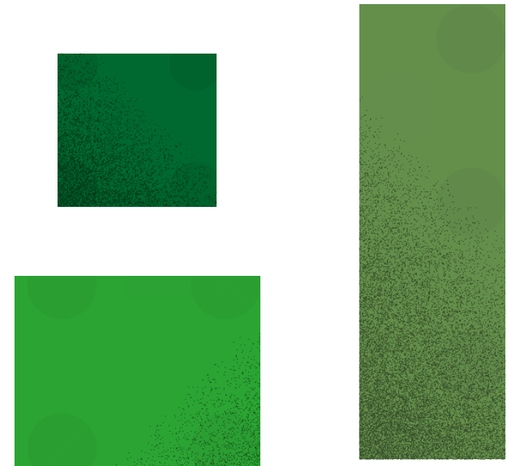
- leadership development programmes
- an increase in the numbers of people being trained as public health specialists
- an evaluation as to whether the training is fit for purpose now that public health consultants no longer routinely come up through a health care route
- upskilling consultants so that they are 'credible voices' in their local systems
- building a wider public health workforce that is more agile, with key skills in communications, negotiation, engagement and relationship building
- diversifying the workforce so that it reflects the communities it serves.

There will also be a need for more clarity in the wider policy environment about the priorities the UKHSA and the OHID, their strategy for public health, and the funding settlement for local authorities. Importantly, the future funding allocation for public health will need to take into account the scale of the challenges that will need to be addressed if public health is to be put on a more sustainable footing.

The role of public health needs to be fully recognised and valued as an integral component of the new ICSs, with an opportunity for DsPH to use their expertise in population health management to work with emergent ICSs. Public health teams, with their local knowledge and relationships are well positioned to build enduring place-based partnerships, that will help the OHID in its requirement to support the levelling up agenda.

Our research has identified a tremendous amount of good intent to improve public health outcomes and reduce inequalities however on its own intent is just aspiration and what is needed is commitment at all levels. As we have seen during the pandemic, intent and a common purpose can change mindsets and deliver a fully functioning and integrated approach to health and care, including a public health system with a mandate and the skills and resources to tackle social equity, reduce health inequalities and improve health and wellbeing for all.

Our next report in the future of public health series examines: Bridging the gap: Protecting the nation from public health threats



Identifying the gap: Understanding the drivers of inequality in public health

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