Academy of Medical Sciences response to the Department for Health and Social Care 'Transforming public health' consultation.

April 2021

The Academy of Medical Sciences is the UK's National Academy working to advance biomedical and health research and its translation into benefits for society. Our recent report on 'Improving the health of the public by 2040' is highly relevant, and our Fellowship includes world-leading public health experts. Informed by this expertise, we wrote to the Secretary of State for Health and Social Care in October 2020 to outline the key principles to consider when developing future arrangements for prevention, health improvement and health protection. These resources can be found on the Academy's website.

Securing our Health: The UK Health Security Agency

1. What do local public health partners most need from the UKHSA?

Health protection and health promotion initiatives must be closely coordinated at all levels. There is significant overlap in responsibility for protecting and promoting health at operational (e.g. Directors of Public Health, local authorities) and scientific levels. The health protection functions of the UKHSA and the health promotion functions of the Office for Health Promotion must remain closely coordinated. This united approach must be achieved for development of national strategies and should be receptive to input from local and regional public health leaders. The two bodies should work together to develop joint initiatives and research agendas, and to hold each other to account for their delivery. They should also work closely with NHS structures, including Integrated Care Systems (ICSs).

Local public health partners need to be integrated into a national health security network with efficient surveillance, analytic, and public health response capability. This network must be resourced to support local health partners in three key areas:

1. **Information sharing.** Public health partners need access to timely data, early warning systems, and evidence-based best practices and must be able to feed their own data back into the network. The surveillance capability must be science-driven with input from a range of multidisciplinary sources, including research labs, public health diagnostics, epidemiological data and genomic sequencing.
2. **Response capability.** The UKHSA must develop national and regional surge capacity for local and national responses to public health crises, such as outbreaks of infectious disease. They will need the authority to work within NHS and social care settings where outbreaks are often first identified.
3. **Research integration.** Local public health partners must be supported by and engage with a high-quality scientific infrastructure and evidence capability. The UKHSA must form strong links with multidisciplinary health security research across academia, industry, the NHS, and public health.

2. How can the UKHSA support its partners to take the most effective action?

The UKHSA's initiatives must be informed by the most rigorous and up to date scientific research, as must be those of the Office for Health Promotion. The UKHSA must be able to lead cutting edge research in collaboration with academic and other partners, and should be able to bid into competitive funding rounds. It must also be able to develop authoritative evidence reviews to inform public health action. Joint appointments with academia would ensure that high-quality research informs evidence-based practice and that the evidence needs of public health practitioners across England inform the research agenda. Research is regarded as underpinning successful approaches to public health in other countries, such as the Public Health Academic Collaborative Centres in the Netherlands and the Robert Koch Institute in Germany.

The UKHSA must be able to build smart, agile surveillance systems and provide access to data and evidence at scale to partners both nationally (including public health professionals, NHS, academia, and industry) and internationally. This includes the sharing of data to enhance clinical trial capabilities, for example in the development of vaccines, therapeutics, and diagnostics.

In addition to close integration of public health research and practise**, strong links with international organisations will be vital in building a world-class public health system**, including the World Health Organisation, the European Centre for Disease Prevention and Control, and the Coalition for Epidemic Preparedness Innovations. The UK should continue to play a pivotal role in developing capability and governance for responding to infectious disease globally, and for preparedness for future pandemics, health security emergencies, and threats.

3. How do you think the health protection capabilities we need in the future should differ from the ones we have had to date?

The UKHSA needs to build innovation in health security. Specifically, it must develop improved national surveillance, early warning, and response capabilities. This must include development of novel diagnostics capability (and their evaluation); linked epidemiological surveillance capability; improved integrated rapid digital data capture and analytics function; capability for genomic analysis linked to epidemiological and clinical (NHS) metadata to understand outbreaks; and evaluation capability to rapidly assess effectiveness of public health responses, including behavioural and socio-economic interventions. As we describe in our report 'Improving the health of the public by 2040', population data have been the foundation upon which some of the great achievements in public health research have been built. Expanding existing health protection capabilities will require maximising the potential of data generated within and outside the health system.

The UKHSA must link closely to research and clinical communities for development, regulation, and clinical and public health use of diagnostics, therapeutics, and vaccines. It will need surge capability to ensure a multidisciplinary response to outbreaks, including outbreak investigation and control, contact tracing, and

the authority to work within NHS and social care settings where novel outbreaks are often first identified.

Existing public health initiatives such as the NIHR Health Protection Research Units (HPRUs) and Applied Research Collaborations (ARCs) showcase the strengths of applied health and care research that responds to the needs of local populations and local health and care systems. These initiatives should be extended to substantially strengthen the national health security research base and build strong multidisciplinary research collaborations between the UKHSA and academia, including joint posts and programmes.

4. How can UKHSA excel at listening to, understanding and influencing citizens?

In our report 'Preparing for a challenging winter 2020/21', we suggested that COVID-19 **public information campaigns and guidance should be co-produced, culturally sensitive and tailored with community ownership**. Co-production involves working in equal partnership with service users, carers and communities at the earliest stages of design, development and evaluation. The UKHSA should work closely with local communities and engage with, and listen to, relevant groups to design real-world interventions that will work in practise and at scale.

In our report 'Improving the health of the public by 2040', we highlighted the importance of public health messaging and its potential to act as both a driver of positive health outcomes and a source of health inequalities. We emphasised the need for more information on how to improve health literacy while increasing the focus on health communication – bearing in mind the opportunities and challenges presented by new methods of communication, digital engagement, and social media. Methods of communicating health messages that are appropriate to the values, culture and norms of different sectors of society need to be strengthened and developed, with a focus on those groups that do not traditionally engage in research and those most at risk of poor health.

Building relationships with previously unengaged groups takes time. Relationships should be existing and ongoing prior to an urgent need such as a pandemic. Approaches to engagement should focus on long term partnerships and connections rather than irregular or intermittent engagement with communities. To build these relationships, the UKHSA should include in their workforce specialists in behavioural and communication science and expert capability in effective communication across a range of media to reach diverse communities, with a focus on increasing community engagement and reducing health inequalities.

Improving our Health

1. Within the structure outlined, how can we best safeguard the independence of scientific advice to Government?

Building a strong and independent evidence base is vital for provision of independent scientific advice. The Office for Health Promotion will therefore need to be adequately and sustainably resourced in order to commission, undertake, access, and

analyse independent research. The development of research agendas and health promotion strategies must also be properly informed by independent scientific and public health advisers. As we wrote in our response to Section 1-Question 2, research is regarded as underpinning successful approaches to public health in other countries, such as the Public Health Academic Collaborative Centres in the Netherlands and the Robert Koch Institute in Germany. The Office for Health Promotion and the UKHSA will need to work together to develop transparent and rigorous frameworks for synthesising evidence into policy recommendations and strategy. Such transparency frameworks would demonstrate the independence and rigour of policy decisions thereby increasing their trustworthiness and could be modelled on the National Institute for Health and Care Excellence framework for developing guidelines for best practice.

We are pleased that the role of the Chief Medical Officer will be strengthened as the lead independent public health adviser, providing professional leadership of the new Office for Health Promotion. We also welcome the recognition that the public health system and government needs a trusted source of independent scientific advice on health improvement. However, given that the Office will be embedded within the Department for health and Social Care, it needs to be made clear how it can be facilitated to be a source of independent advice, even when led by the Chief Medical Officer.

2. Where and how do you think system-wide workforce development can be best delivered?

The public health workforce needs to be much wider than health professionals. Developing a system-wide workforce does not just require training public health professionals, it needs public health training to be embedded in other disciplines so that a range of future professionals, such as engineers, educationalists, lawyers, architects, and experts on the environment, among others, are able to address the wider determinants of health. In our report on 'Improving the health of the public by 2040', we recommended that higher education institutions:

1. Incorporate opportunities for learning about health in a wide range of disciplines relevant to the health of the public.
2. Incorporate these broader disciplines into public and population health courses.
3. Consider mechanisms for building joint modules between public and population health and these other disciplines to foster transdisciplinary approaches to learning and research.

Workforce development must be multidisciplinary and integrated at all levels. The Office for Health Promotion should consider how to build a multidisciplinary workforce across local, regional and national levels. The public health workforce must be developed within local authorities, and in the Integrated Care System (ICS) structures announced in the Health and Care White Paper to improve prevention and public health capability across the NHS. In addition, the Office for Health Promotion and the Cabinet Office should play a role in integrating health improvement across government in order to prioritise the promotion of public health, possibly by embedding public health advisers within departments.

3. How can we best strengthen joined-up working across government on the wider determinants of health?

We welcome the recognition of health as a core priority for the whole of government and the establishment of a cross-government ministerial board on prevention. To further strengthen joined-up working, there should be consideration of how the network of Chief Scientific Advisers and their supporting teams will be enabled to provide evidence to the board and can help enact the board's recommendations.

Since it has been recognised that health promotion is a cross-government concern, other government departments (e.g. Transport, Education, Housing, Communities and Local Government, Treasury) must play a role in addressing the wider determinants of health and reducing health inequalities. **Strengthening joined-up working across government could be made possible by empowering other departments to drive and be accountable for public health initiatives.** The Office for Health Promotion and the Cabinet Office should seek to develop and implement metrics such as the Office for National Statistics' Health Index to encourage consideration of the impact of new policies on health and incentivise cross-departmental working.

Health protection and health promotion initiatives must be closely coordinated at all levels. Improving public health requires building a resilient, healthy population by addressing the wider determinants of health. As we wrote in our response to Section 1-Question 1, there is significant overlap in responsibility for protecting and promoting health at operational (e.g. Directors of Public Health, local authorities) and scientific levels. The health protection functions of the UKHSA and the health promotion functions of the Office for Health Promotion must work closely together. This united approach must be achieved at a national level, and the two bodies should work together to develop joint initiatives and research agendas on the wider determinants of health, and to hold each other to account for their delivery. They should also work closely with NHS structures, including Integrated Care Systems (ICSs).

4. How can we design or implement these reforms in a way that best ensures prevention continues to be prioritised over time?

In order to ensure the prioritisation of prevention, **it is important for the leaders of the Office for Health Promotion and the UKHSA to be responsible for driving prevention strategies and accountable for improving the health of the public**. As we wrote in our response to Section 1-Question 1, the two bodies should work together to develop joint initiatives and research agendas and should hold each other to account for their delivery. To do so, the UKHSA and the Office for Health Promotion will need sustainable resourcing and funding, including for leading and/or collaborating on cutting-edge research.

The NHS and the Integrated Care Systems must work in partnership with local Directors of Public Health to prioritise prevention in health and social care. Together, they need to drive a population-based approach to health promotion informed by intelligence on their local population and the wider determinants of health.

The prioritisation of prevention must be driven by high-quality research. As we wrote in our response to Section 1-Question 2, the UKHSA and the Office for Health

Promotion must be properly resourced to be able to lead and collaborate in cutting edge research with academic and other partners. Joint appointments with academia would ensure that high-quality research informs evidence-based practice and that the evidence needs of public health practitioners across England inform the research agenda.

The Office for Health Promotion and the UKHSA must also collaborate internationally and join with global efforts to tackle the wider determinants of health. The success of cross-border initiatives such as the WHO Framework Convention on Tobacco Control, which the UK was a leader in implementing, demonstrates the value of a global, collective approach.

Strengthening our local response

1. How can we strengthen the local authority and Director of Public Health role in addressing the full range of issues that affect the health of local populations?

Health protection and health promotion initiatives must be closely coordinated at all levels. As we wrote in our response to Section 1-Question 1, local public health partners need the health protection functions of the UKHSA and the health promotion functions of the Office for Health Promotion to remain closely coordinated.

Local authorities and Directors of Public Health need to be able to access strong evidence bases that are relevant to their local areas and local populations. As we wrote in our response to Section 1-Question 2, local health practitioners should be enabled to share best practices between local areas facing
common health challenges and provided with access to appropriate data and tools for their community. To establish best practises and build a strong evidence base, local authorities and Directors of Public Health need to be integrated with the research community so public health research and public health delivery can inform each other.

Local public health partners need to be enabled to work across broad sectors for the wider determinants of health. We welcome the expectation in the public health policy paper that Directors of Public Health will have an official role in both the Health and Care Partnership and the ICS NHS Body. A statutory role would empower Directors of Public Health to drive integrated population-based approaches to health promotion and health and social care. To strengthen the capabilities of local authorities and Directors of Public Health, it is important that they have interdisciplinary support and expertise to address the wider determinants of health. Local initiatives to improve public health must go beyond health professionals and include engineers, architects, town planners, lawyers, and the third sector among others, as well as public health practitioners.

2. How do we ensure that future arrangements encourage effective collaboration between national, regional and local actors across the system?

Reviewing the organisation of public health structures in the UK presents a unique opportunity to build a stronger system with evidence-based practice at its core, **which capitalises on national, regional and local expertise.**

As we wrote in our letter to the Secretary of State for Health and Social Care in October 2020 (available on the Academy's website), **we call for the UKHSA and the Office for Health Promotion to adopt a hub and spoke model**, with a clear central function integrated with local structures and regional hubs of engagement involving universities and other research institutions. The central function provided by the UKHSA and the Office for Health Promotion would have a critical role in coordinating health protection and health promotion initiatives in England, as well as working across government to ensure health improvement is considered in policy development. The regional hubs of engagement would play a pivotal role in linking local initiatives and addressing regional health inequalities. They would catalyse more structured, long-term and effective connections between practitioners and researchers to ensure that health and social care is based on the best available evidence.

In order to develop evidence-based practise, **local authorities and Directors of Public Health need clear mechanisms to feed evidence and expertise from their communities to the regional hubs and to the UKHSA and the Office for Health Promotion**. The UKHSA and the Office for Health Promotion should then engage across the devolved administrations to share best practice and consider joint initiatives. This model will only deliver an effective health protection and health promotion network if it has strong, connected leadership at national, regional and local levels.

3. What additional arrangements might be needed to ensure that regionally focussed public health teams best meet the needs of local government and local NHS partners?

Regional public health teams must serve as organisational hubs for the intersection of public health partners, including the UKHSA, the Office for Health Promotion, the NHS, Directors of Public Health, academia, medical research charities and social care, among others. There are several core functions which need to be provided at a regional level:

- **Information sharing.** Local authorities, Directors of Public Health and Integrated Care Systems need cross-cutting information on population health and its wider determinants. Regional public health teams need to provide local partners with access to the appropriate data and tools for their community.
- **Regional hubs of engagement.** Regional public health teams should play a pivotal role in connecting public health researchers from academia and industry with local public health systems and practitioners.
- **Coordination with health security.** Integrated Care Systems and local Directors of Public Health need to be brought together at a regional level to work with the UKHSA on health security functions.

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