| | |
|---|---|
| **Paper for** | Faculty of Public Health, Academic Research Committee working group |
| **Purpose** | A scoping review of priority-setting exercises by public health bodies to inform submission to SCHOPR: **Beyond Reports, a blueprint on how to achieve improved healthy life expectancy for all** |
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| **Date** | 28 September 2018 |

# A scoping review of high-level priorities for population health:

## priority-setting exercises by public health bodies and professionals since 2014

## Contents

# Introduction

This is a rapid scoping review to identify and summarise those health issues likely to be most influential to the health of the UK public over the next several decades. The intention is that this will contribute to the identification of a suite of research topics that will be developed by the Faculty of Public Health's Academic Research Committee as its *Beyond Reports, a blueprint on how to achieve improved healthy life expectancy for all*.

Two main sources of data have contributed to this review. The Global Burden of Disease studies and database to provide objective data about the current burden of diseases and risk factors [pp.3-4], and recent professional consensus reports about the most important problems now in the future [pp.5-24].

Reports detailing professional consensus statements were identified from published and grey literature since 2014. Additionally, some reports that do not represent a formal consensus have been included that suggest additional priorities. Report summaries include details of: who conducted the consensus exercise; who was consulted; the methodologies were used; and the main findings.

The findings from reports are presented here at several levels of zoom:

- A table [p.5] detailing the very high-level key area headings of the reports
- A more detailed table [p.6] with specific details of the reports' findings by topic area
- A mapping of the reports' findings about the determinants of health to the Dahlgren & Whitehead Rainbow [pp.7-8]
- And 1-2 page summaries [pp.9-24] of each report

In order to increase the practical value of this document, the 1-2 page report summaries include hyperlinked images of the covers and page references. The page references are absolute, as indicated when scrolling through the linked pdfs, and may differ to those indicated at the bottom of reports' pages.

Caveats: this pragmatic review has been completed by a single reviewer over a short period, therefore some relevant reports may have been overlooked. Inevitably, the process of summarising reports affects their emphasis and nuance, and these summaries have not been reviewed for accuracy by the authors of individual reports.

# Global Burden of Disease data for England

Figures 1 and 2 taken from:

Newton, J.N. et. al., 2015. Changes in health in England, with analysis by English regions and areas of deprivation, 1990–2013: a systematic analysis for the Global Burden of Disease Study 2013. *The Lancet*

**Figure 1:** DALYs attributed to level 2 risk factors in 2013 in England for both sexes combined.

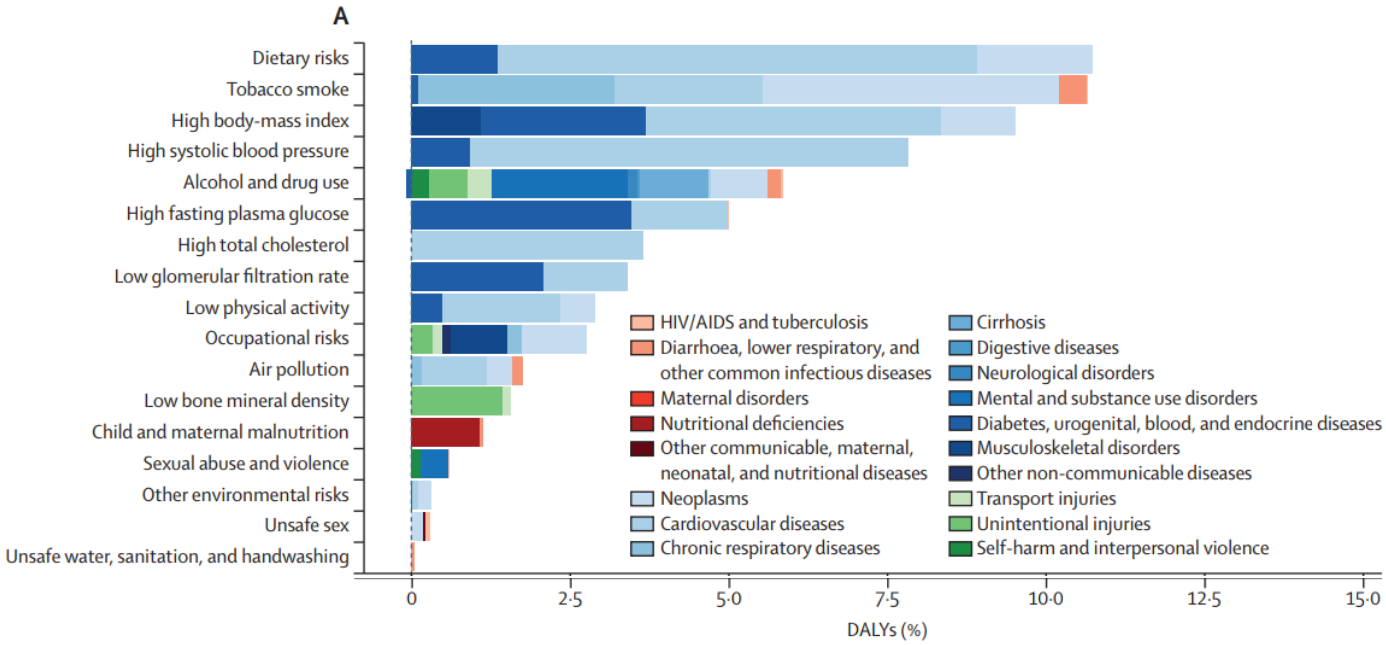
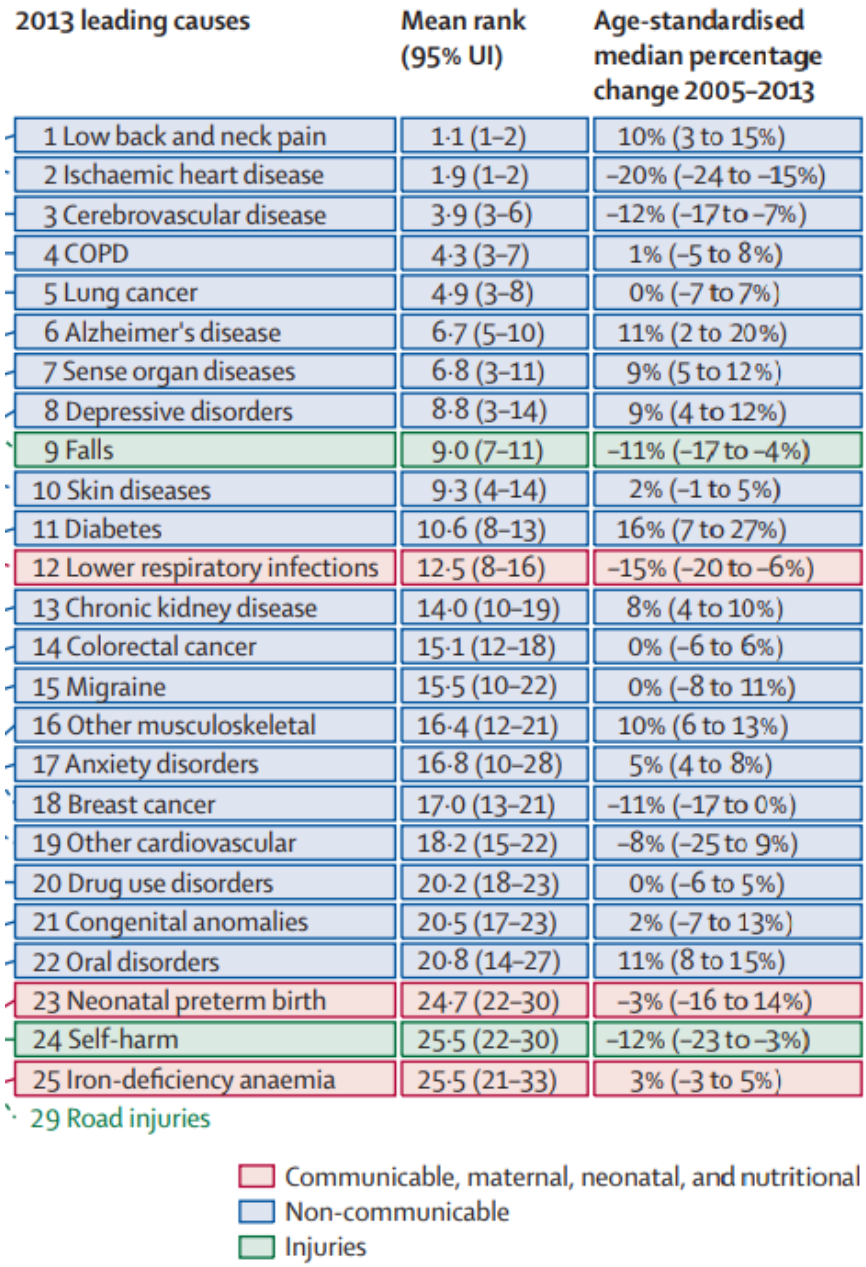


**Figure 2:** 25 leading GBD level 3 causes of disability-adjusted life years in England, both sexes combined, 2013. With age-standardised median percent change [in attributable DALYs] 2005-2013.



| 2013 leading causes | Mean rank (95% UI) | Age-standardised median percentage change 2005–2013 |
|---|---|---|
| 1 Low back and neck pain | 1·1 (1–2) | 10% (3 to 15%) |
| 2 Ischaemic heart disease | 1·9 (1–2) | –20% (–24 to –15%) |
| 3 Cerebrovascular disease | 3·9 (3–6) | –12% (–17 to –7%) |
| 4 COPD | 4·3 (3–7) | 1% (–5 to 8%) |
| 5 Lung cancer | 4·9 (3–8) | 0% (–7 to 7%) |
| 6 Alzheimer's disease | 6·7 (5–10) | 11% (2 to 20%) |
| 7 Sense organ diseases | 6·8 (3–11) | 9% (5 to 12%) |
| 8 Depressive disorders | 8·8 (3–14) | 9% (4 to 12%) |
| 9 Falls | 9·0 (7–11) | –11% (–17 to –4%) |
| 10 Skin diseases | 9·3 (4–14) | 2% (–1 to 5%) |
| 11 Diabetes | 10·6 (8–13) | 16% (7 to 27%) |
| 12 Lower respiratory infections | 12·5 (8–16) | –15% (–20 to –6%) |
| 13 Chronic kidney disease | 14·0 (10–19) | 8% (4 to 10%) |
| 14 Colorectal cancer | 15·1 (12–18) | 0% (–6 to 6%) |
| 15 Migraine | 15·5 (10–22) | 0% (–8 to 11%) |
| 16 Other musculoskeletal | 16·4 (12–21) | 10% (6 to 13%) |
| 17 Anxiety disorders | 16·8 (10–28) | 5% (4 to 8%) |
| 18 Breast cancer | 17·0 (13–21) | –11% (–17 to 0%) |
| 19 Other cardiovascular | 18·2 (15–22) | –8% (–25 to 9%) |
| 20 Drug use disorders | 20·2 (18–23) | 0% (–6 to 5%) |
| 21 Congenital anomalies | 20·5 (17–23) | 2% (–7 to 13%) |
| 22 Oral disorders | 20·8 (14–27) | 11% (8 to 15%) |
| 23 Neonatal preterm birth | 24·7 (22–30) | –3% (–16 to 14%) |
| 24 Self-harm | 25·5 (22–30) | –12% (–23 to –3%) |
| 25 Iron-deficiency anaemia | 25·5 (21–33) | 3% (–3 to 5%) |
| 29 Road injuries | | |



The economic burden associated with diseases and risk factors in figures 1 and 2 has not been quantified here. Potential methodologies that could be used are discussed in a WHO publication here.

# High-level overviews of reports and topics addressed

To aid legibility, Tables 1 and 2 are available in separate sheets here.

**Table 1**: Summary of the reports in terms of high-level topic areas:

| **Improving the health of the public by 2040** | **The health of people** | **The future of public health research** | **Future of health** | **Priority mapping to inform SPHR's choice of strategic research themes** | **Public health perceptions survey** | **Research evidence in public health** | **Public health priorities for Scotland** | **From evidence into action** | **Facing the future** | **What are the future challenges for population health?** | **Additional input from working group** |
|---|---|---|---|---|---|---|---|---|---|---|---|
| AMS | CSS | AMS | RAND | NIHR SPHR | LGA | LGA | COSLA & Govt | PHE | WHO | SSM | - |
|  |  |  |  |  |  |  |  |  |  |  | |
| Health of the public approach | Research coordination, capacity, and implementation | Diseases and determinants | Diseases and determinants | Diseases and determinants | Diseases and determinants | Research implementation | Determinants | Diseases and determinants | Relevence of research to policy | Determinants | Healthier, wealthier, safer |
| Research coordination, capacity, communication | Data | Cross-cutting research gaps | Health systems | | Policies | Determinants | [Prioritisation tool] | Game changers | Complex challenges | Diseases | Policing and violence |
| Diseases and determinants | | | Research priorities | | Barriers to better health services | Interventions | | | New scientific and policy thinking | Funding | Links between research commissioning, research, and practice |
| | | | Research coordination and methodologies | | | Prevention | | | Health systems | | Research beyond the biomedical |
| | | | | | | Enablers and methods | | | | | Genomics |

**Table 2** (overleaf): Gazetteer and single-page summary of the reports. It details the specific areas addressed in each report, categorised according to where the topic is most relevant in terms of: diseases and determinants, research considerations, implementation, systems, policies, or globally.

# Table 2: Reports and findings by topic area

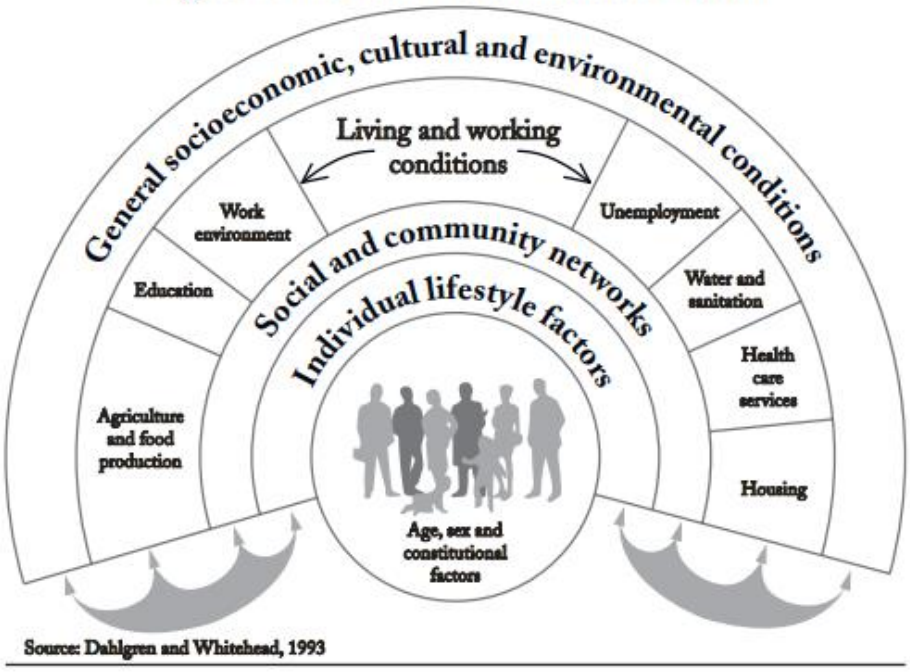
| | Improving the health of the public by 2040 | The health of people | The future of public health research | Future of health | Priority mapping to inform SPHR's choice of strategic research themes | Public health perceptions survey | Research evidence in public health | Public health priorities for Scotland | From evidence into action | Facing the future | What are the future challenges for population health? | Additional input from working group |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| |  AMS |  CSS |  AMS |  RAND |  NIHR SPHR |  LGA |  LGA |  COSLA & Govt |  PHE |  WHO |  SSM | |
| **Determinants** | Inequalities, life course, healthy environments | | Workplace and commercial determinants of health, health inequalities, obesity | Inequalities, maternal and child health, Impacts of in utero events. Ageing | Children, young people and families; places and communities; inequalities; discrimination | Drugs, alcohol, smoking, physical activity, obesity | Transport and air quality, housing, impacts of austerity, best start in life, employment. Inequalities. Obesity. Alcohol. Isolation | Transport infrastructure, empowering communities, green space, commercial environment, housing, loneliness. Childhood poverty, pregnancy, attainment gap. Increasing income and wealth gaps, stigma. Diet, physical activity. | Obesity, smoking, alcohol, early years | | Inequalities, poverty, obesity | Healthier, wealthier, safer; policing and violence |
| **Diseases** | | | Mental health, multimorbidities, quality and quantity of life | Multimorbidities, polypharmacy, dementia, mental health, drugs in pregnancy, AMR, novel treatments and vaccines, outbreak management, gastrointestinal and liver diseases, oral health, cancers with poor survival. | Public mental health; communicable diseases; musculoskeletal and neurological disorders; screening | Mental health, dementia, sexual health. | Mental health, STIs | Mental health and wellbeing. Harm minimisation from tobacco, alcohol, drugs; intergenerational effects. | Dementia, AMR, tuberculosis | | Mental health | Genomics |
| **Research commissioning** | Coordination through SCHOPR; joint working with commercial sector | Strategic coordinating body with wide view of PH. Interdisciplinary research agenda on importance of macro- and micro-environments and of social relationships to change behaviour | Cross-cutting research gaps | New structures and processes for research governance, more 'public pull to balance scientific push' for research, research participant representativeness. behaviour change, population-based studies | | | | [Tool used for prioritisation] | | Relevance of research to policy | | Beyond the biomedical |
| **Research methodology** | Harness new digital and tech; linked datasets | Efficient data collection; unlocking current data difficulties; health data linkage and social consent model. Use behavioural and social science research about incentivisation and research translation. | Introduce wellbeing into economic thinking; more imaginative economic evaluations; identify research questions that cannot currently be answered; better data for evaluation. Methodologies for systems approaches for complex problems | AI, wearable tech, apps, robotics, genomics. Multi-disciplinary research, away from RCTs and towards multi-disciplinary approaches. | | | Alternatives to Return on Investment; decision making tools for complexity, data governance obstacles, better indicators, data and tech, excess treatment costs | | Apply behavioural science in the digital age, place-based approaches. Apply the concept of wellness, not just illness or healthcare activity. | Complex systems approaches. New scientific thinking, interactions between individual and environment across life course, ecological public health, epigenetics. | | |
| **Research capacity** | Transdisciplinarity; training in informatics; practitioner research skills | Review of research infrastructure; multi-disciplinary research; diverse training pathways; training in health and informatics | | Governance, embed research in the NHS, remote trials, linked datasets. Clinical capacity building, mechanisms to spread research. | | | | | | Workforce knowledge for new scientific thinking. | Funding | |
| **Research communication** | Engagement with politics, commercial, public (esp. hard-to-reach groups) | | | | | | | | Transparency about what works. | | | Better links between commissioning, research, and practice |
| **Implementation** | Align PH and clinical perspectives; regional hubs linking research and practice; evaluation built in; Fellowships | Implementation laboratories | Strategies for implementing national and regional approaches | Tech, personalised medicine, research-to-practice. | | Barriers: insufficient resources, mismatched priorities, working with NHS, engaging key partners. | Prevention and intervention, better indicators. Options for cost saving; rational approaches to health and care restructuring and design. Resilience and self care. Prevention: value for money, balance work with NHS, evaluation of social prescribing | | Preventive services implemented at scale. Role of employers for mental and physical health. | | | |
| **Systems** | | | Environments that support PH; impact of industry; | Tech, health and social care integration, patient-centred model, private healthcare, mental health services, changing roles. Health and social care organisation, evaluation, informal carers, end-of-life, workforce. | Public health systems; Changing behaviour at a population level; interface between health and social care; community pharmacies, care homes, integrated care | | | Unhealthy foods, active transport | | Complex political, social, economic, and environmental challenges. Multifaceted interventions | | |
| **Policies** | Health evidence for government departments | Urgent debate about the benefits of opening up access to link de-personalised health and social data | | Shift from treatment to prevention | | Licensing of alcohol, gambling, junk food outlets. Tax etc. to reduce income inequality. Air pollution. School cooperation with local govt. Standards for salt, sugar, saturated fats. Minimum alcohol unit pricing. Restrict advertising and promotion. | Engagement of policy makers with research. Opportunities for devolution. | | | National policies in a complex world. Evidence needs to be more relevant. New health system concepts. Consideration of role of health systems as drivers of equitable improvement at the population level. | Brexit, funding, austerity, climate change | |
| **Global** | Engage globally, global infection security, environmental change | | | Global challenges: environmental factors in chronic and infectious diseases, AMR | | | | | | | | |

## Report priorities mapped to the layers of the Dahlgren & Whitehead Rainbow

The diseases, determinants, and global influences noted in the reports have been analysed into themes and mapped to the layers of the Dahlgren & Whitehead Rainbow. This provides a sense of how these health considerations interact:

The determinants of the general health of the population can be conceptualized as rainbow-like layers of influence (see Fig. 1).

**Figure 1. The Main Determinants of Health**




**Determinants mapped to Rainbow layers (outer to inner):**

**1 Macro-policy environment; general socioeconomic, cultural and environmental conditions**
Economic growth and health, income inequalities and health, poverty and health

- Political: austerity, Brexit, international
- Social: sustainability, population density, demographics, migration, war, violence, global security
- Environmental: sustainability, climate, air quality, temperature, water and food security
- Economic: sustainability, determinants of increasing income and wealth inequalities; austerity; consideration of wellbeing
- Infectious: environmental change effects on infectious diseases and outbreaks; antimicrobial resistance

**2 Multisectoral actions to combat inequities in health; living and working conditions**
Education, working environment, unemployment, health care services

- Pregnancy: maternal health, medications during pregnancy, effects of in utero and intrapartum events
- Early years: family factors, education, attainment gap
- Mid years and employment: workforce links with health, worklessness
- Later years: retirement age, demographic shift, multimorbidity, polypharmacy, frailty
- Mental health: loneliness, population density, school interventions, public mental health
- Healthcare: physical - treatment v prevention, screening, antimicrobial resistance, genomics; mental – mental health, dementia, mental disability; links between mental and physical health. Specific disease burdens. Ageing population.
- Local government: services for mental health, obesity, physical activity, alcohol, smoking, sexual health; collaboration with schools; policing
- Commercial determinants: media, advertising, licensing restrictions, standards around sugar/salt/fats
- Housing and built environments: planning, greenspace, places and communities, physical activity
- Transport: infrastructure, active transport
- Data sharing between health and social care

**3 Social and community inclusion policies; social and community networks**
Psychosocial environment; macro- mezzo- micro-levels

- Loneliness and isolation; social media, online life
- Resilience
- Health and social care; informal carers
- Stigma, discrimination, positive relationships, violence

**4 Lifestyle-related policies through an equity lens; individual lifestyle factors**
Tobacco, alcohol, nutrition, physical activity, and obesity

- Tobacco
- Alcohol harms
- Harm minimisation from substance use
- Obesity, Childhood obesity
- Physical activity
- Intergenerational effects
- Behaviour change/behavioural science

# Formal professional-body consensus report summaries

## Improving the health of the public by 2040; optimising the research environment for a healthier, fairer future

Academy of Medical Sciences, 2016


**Aims**: 'To recommend to relevant decision-makers the requirements for supporting the health of the UK population in 2040 – in terms of research evidence, research capacity, research infrastructure and the mechanisms for translating research into practice.' [p.13] 'Biomedical research as currently conducted does not have the capacity to address these increasingly diverse and complex issues that transcend disciplinary, sectoral and geographical boundaries. We need to move towards a 'health of the public' approach, involving disciplines that would not usually be considered to be within the public health field; an approach integrating aspects of natural, social and health sciences, alongside the arts and humanities, which directly or indirectly influence the health of the public.' [p.5]

**Who was consulted**: Working group of 17 experts (from: public health, urban design, political economy, behaviour change, innovation, informatics, environmental science). Professional and public groups; key decision makers. [pp.106-110]
**Methodology to longlist priorities**: Visioning and drivers workshop; written input submissions; Lancet call for mini-essays; and public dialogue events; stakeholder workshop; landscape mapping; individual meetings with key decision makers.
**Methodology to agree priorities**: Stakeholder workshop; seven roundtable discussions to explore topics of interest; review group.

**Findings**:
**Six key developments to adopt a health of the public approach** [pp.5-6]:

1. Rebalancing and enhancing the **coordination of research** to drive population-level questions
2. Harnessing **new technologies and the digital revolution**, and address the issues around data access, ethics, trust, regulation, and skills
3. Developing transdisciplinary **research capacity**, with a holistic understanding of the wide range of determinants of health, and the skills and approaches necessary to address them
4. **Aligning perspectives** and approaches between public health and clinical practice
5. Working with all sectors of society to improve health and health equity, through iterative and **meaningful engagement** with policy makers, the commercial sector, and the public
6. **Engaging globally**; many of the drivers of future health are global, and UK research has a global impact

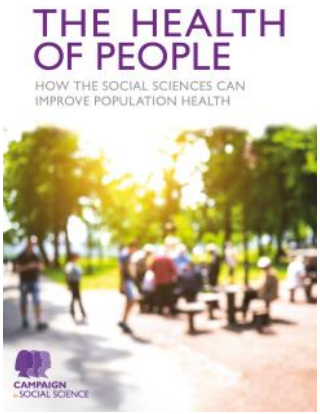
**Recommendations** [summary pp.7-9]:

1. Establishment of the UK Strategic Coordinating Body for Health of the Public Research (**SCHOPR**) to help meet our aspiration of substantially, continually and sustainably improving health and health equity by identifying research needs and coordinating research activities. [pp.57-60]
    - **Research priorities**: Health inequalities; environmental, economic, and social sustainability; harness digital and technological developments; improve health in early years; supporting older people; design environments, policies and communications to make healthy behaviours easier to adopt; improve global security, particularly related to infectious diseases and environmental change.

2. Key public and charitable research funders continue to work with relevant stakeholders to maximise the potential of **data** generated within and outside the health system for health of the public research. In particular, a programme to better understand how balancing social and health utility with citizen and commercial privacy. [p.70]
3. Higher education institutions and key research funders further enhance **training pathways in informatics** for health that are open to a wide range of disciplines. The aim should be to build a critical mass of expertise in the UK to process and analyse the full range of available data now and in the future to understand and improve the health of the public. [p.72]
4. 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 other disciplines to **foster transdisciplinary approaches** to learning and research. [p.81]
5. Through education and training, health and social care practitioners are: 1. Better equipped with an understanding of the drivers and interventions that affect the health of the public and the relevance to their practice. 2. Able to engage with research, and **evaluate and use evidence**. This should be taken forward by the relevant training and regulatory bodies. [p.84]
6. Public Health England, Health Education England and their equivalents work with the research community to: 1. Develop **regional hubs** of engagement between practitioners and researchers to integrate health of the public research and health and social care delivery, building on existing national and regional public health structures, which together can form a UK-wide network. 2. Strengthen the mechanisms for obtaining and providing independent evidence on improving the health of the public, directed at all health and social care practitioners, and for reviewing the uptake of evidence-based practice guidance. [p.94]
7. Each **government department reviews how it obtains evidence** and advice on health and health equity, in order to ensure that impact on health and health equity is incorporated in the development of all relevant policies. These reviews could be led by the departmental Chief Scientific Advisers and supported by the Health of the Public Policy Fellowships we propose in recommendation 9. Working with departmental policymakers, the Fellows would identify evidence requirements and the mechanisms needed for the research community to provide this evidence and advice. [p.95]
8. All major policies and programmes that address health and health equity, as well as those that affect the key drivers of health and health equity, should have independent effectiveness and economic evaluation of their **short-, medium- and long-term impacts built in** from the start. This will support decisions on wider investment or disinvestment, as appropriate, to promote optimum resource allocation. [p.95]
9. Development of '**Health of the Public Policy Fellowships**' to build reciprocal relationships, mutual understanding and long-term networks between researchers and policymakers. These Fellows should be based in the most relevant parts of Government departments. [p.97]
10. Research funders consider mechanisms to explore joint working between health of the public researchers and the **commercial sector**. [p.99]
11. Support research into: 1. Strengthening and developing methods of engagement between researchers and the public. 2. Strengthening and developing methods of **communicating health** messages that are appropriate to the values, culture and norms of different sectors of society. In both cases, particular focus should be given to those groups that do not traditionally engage in research and those most at risk of poor health. [p.100]

## The health of people; how social sciences can improve population health

Campaign for Social Science, 2017




**Aims**: 'This report examines the current and potential role of social and behavioural sciences in improving population health.' It is intended to complement the recommendations of *Improving the Health of the Public by 2040*. 'This report argues that the social sciences provide models and methods for a more comprehensive and coherent approach to behaviour and behaviour change that takes account of the physical and social context, physical and psychological capability, and people's 'reflective' and 'automatic' motivational processes.' [p.14]

**Who was consulted:** Inter-disciplinary working group of experts. Nearly 50 senior health professionals specialised in health service delivery, prevention, use of health data. 65 respondents to a call for evidence (largely from academia, policy-makers, practitioners and researchers).

**Methodology to longlist priorities:** Interdisciplinary working group of experts. Call for evidence. Roundtable discussion.

**Methodology to agree priorities:** Working group discussion.

**Findings:** [summary pp.16-17]

**Recommendations for coordinating and funding research and implementation** [pp.53-55]

1. We call for a UK **strategic coordinating body for research into population health**, to bring together major research finders and learned societies.
2. This coordinating body should take as its remit a **wide view of population health** and approaches to improving it, recognising the role of behaviour and the diversity of change agents.
3. One of the new body's first tasks should be to commission a **review of the existing infrastructure** for health research, including social and behavioural research and its implementation in healthcare and public health. This review should examine research funding, funding agencies, funding mechanisms, and infrastructure for implementation at national, regional, and local level, including resources and roles dedicated to this.
4. The review should make recommendations regarding the building of an **integrated system for multi-disciplinary research and implementation**. This should include reviewing existing centres and networks, addressing the weaknesses in the current approaches while building on their strengths, to ensure critical mass and stability.
5. This review should consider establishing a number of '**implementation laboratories'**. These would focus on the development and evaluation of implementation strategies for the health service, local government and other parts of society relevant to health.

**Recommendations for capacity building** [pp.56-58]

1. The UK strategic commissioning body should review existing skills and expertise available for research into behavioural and social sciences in relation to health. This review should assess how the necessary skills and expertise can be developed, including **more diverse and appropriate training pathways**, and training in how to engage effectively with potential users of research, as well as how medical researchers and practitioners could engage more strategically with social science expertise.

2. The body should consider how best to encourage and incentivise those involved in promoting health and commissioning and delivering healthcare services. It should **make use of behavioural and social science research about incentivisation and research translation**.
3. The strategy for capacity building should include developing greater numbers of people who can ally **high-level data and informatics skills with substantive knowledge of health research**. This will require a strategic priority among research finders and a focus on training pathways, and include consideration of how to draw mathematics, physics, and data analytic specialists into social and behavioural health and health delivery research.
4. All research finders should consider a new interdisciplinary research agenda on the importance of **macro- and micro-environments and of social relationships in bringing about behaviour change**.

**Recommendations for data provision and access** [pp.59-60]

1. We support the calls of the Wachter review *Making IT work* for development of efficient and effective systems for **collecting data** relevant to behaviour change in healthcare and public health. The use of such data is essential for public-benefit research to improve the health of the nation.
2. The UK strategic coordinating body should play an **active role in unlocking the current difficulties** in accessing health data and linking them to social data to provide research access that is both necessary to improve population health and consistent with public acceptance of public-benefit research carried out with appropriate safeguards.
3. We also call for greater urgency in the deliberations of NHS Digital and the Department of Health over **health data linkage and for the 'social consent' model** we propose in this report to form an important foundation for these policy decisions.
4. We recommend that parliamentarians, policy-makers, health organisations and the broader public should be engaged in an **urgent debate about the benefits of opening up access to link 'de-personalised' health data with broader social data** to improve health policy, practice and behaviour. Social scientists should be active participants in these discussions about data linkage, as they have useful research and evidence about public views on these matters.

## The future of public health research; summary report of a workshop held 20-21 July 2017

Academy of Medical Sciences, 2017


**Aims**: 'This report provides a summary of the health challenges discussed by participants, as well as the associated research gaps and overarching themes. As a next step, senior members of the public health community will consider this longlist of challenges and mechanisms for developing closer joint working.' [p.4]

**Who was consulted**: Two-day workshop with senior leaders from a wide range of disciplines and sectors relevant to health of the public.
**Methodology to longlist priorities**: delegates identified six major tractable policy challenges where public health research could contribute substantially
**Methodology to agree priorities**: Workshop discussions. Future work planned. [p.4].

**Findings**:
**Six major tractable policy challenges where public health research could contribute substantially** [summary p.4]:

1. Public mental health [pp.8-9]
    - Research gaps: diversity of drivers, loneliness, increasing population density; epidemiology; new technologies; infrastructure; population-level measures; acute v. chronic treatments; school interventions; routine measurement; thresholds of normal; evaluation; cost-burden
2. Productive workforce and a sustainable economy [pp.9-10]
    - Research gaps: links with health; commercial determinants of health; retirement age; lifestyles; new technologies; introduce wellbeing into economic thinking
3. Multimorbidities [pp.10-11]
    - Research gaps: mapping clusters; risk factors; which are most tractable
4. Health inequalities [pp.11-12]
    - Research gaps: how to design places and communities; role of the public health community; initiatives to address inequalities; quality of life and healthy life expectancy; international learning; effect of changes; impact of loneliness
5. Obesity [pp.12-14]
    - Research gaps: commercial sector; consumption behaviour; systems approach; large-scale structural change; rehousing and obesity; physical activity internationally; barriers to strategic implementation; identifying cheap and impactful interventions; how to combine interventions at multiple levels; built environments and infrastructure for physical activity
6. Quality of life and healthy life expectancy [pp.14-15]
    - Research gaps: relative contributions of different diseases; healthy ageing; digital interactions; social changes; environmental and intrinsic determinants of cognitive and physical capacity; quality of life in the elderly; social exclusion, educational attainment and economic security; resilience; good death; methods to tackle major losses of quality of life; measure and value health gains; risk tools for functional and cognitive disability.

**Overarching themes: Working together with a shared language** [p.16-18]:
Cross-cutting research gaps:

1. Creating environments that support public health
    - How to intervene in educational and familial environments
    - How to design educational, social, online, and build environments and central infrastructure

2. Impact of industry on public health concerns
    - Influencing market incentives and commercial determinants
    - Relationship between food industry and health (malnutrition and obesity)
    - Influence of media
    - How to influence industry, and the role of government economic policy on demand
    - How to make the UK commercially attractive while encouraging commercial sector changes
    - Effect of the digital economy on health and health services
3. Evaluating existing public health understanding and interventions
    - Mapping competing determinants and how they can be tackled
    - More imaginative economic evaluation of public health, including around health inequalities, productivity costs, and social care impact
    - Identifying research questions that cannot be answered with current methodologies
    - Support evaluation through more effective data gathering
4. Embedding systems approaches
    - Generational divides in risk exposure
    - The best strategy for implementing national- and regional-level approaches
    - Methodologies for systems approaches to complex multi-layered problems

## Future of health; findings from a survey of stakeholders on the future of health and healthcare in England

RAND Corporation, 2017


**Aims:** To gather and synthesise stakeholder views on the future of health and healthcare in England in 20 to 30 years' time. To gain an understanding of the differences and trends affecting the future of health and healthcare as well as of the key drivers of change, in order to inform strategic discussions about the future priorities of the NIHR and the health and social care research communities more widely.

**Who was consulted:** 153 professional representatives of organisations, and 146 private individuals. Fields represented: public health, social care, health care, genomics, patient advocacy, policy health. Stakeholder categories: clinicians, policy experts, academics, patient and public representatives. [p.22]
**Methodology to longlist priorities:** Online survey by email to experts, with encouragement to cascade. Five open-text questions: What differences do you foresee in the state of health and provision of healthcare in England in 20-30 years? What do you think will be the key drivers of the changes? What will be the major trends in health and healthcare in England in the next 20-30 years? Commonly discussed issues which you believe to be overstated? Issues that are underrepresented in the debates? [p.21]
**Methodology to agree priorities:** Survey responses analysed by a grounded theory approach to capture unexpected and emergent themes and ideal. Common themes drawn out with reflection on discordance and agreement within themes. No additional prioritisation.

**Findings:**

**3. Views on future health and healthcare landscape**

**3.1 Population health** [pp.25-32]:

1. Ageing population and associated multi-morbidities: dementia, frailty; quantity v. quality of life
2. Lifestyle and environmental drivers of disease: obesity, diabetes, cancer, dementia; life-course approach; individual- and population-level behaviour change for public health; air pollution
3. Increasing health inequalities: social and economic drivers; lifestyle, income, housing; ethnic determinants
4. Mental ill health: children and young people, particularly social factors and computer/phone use; older people, particularly loneliness and isolation.
5. Global challenges: changing patterns of chronic and infectious diseases because of environmental factors; antimicrobial resistance

**3.2 Health systems and performance** [pp.32-49]**:**

1. Transformations in the organisation and delivery of health and social care: resources-driven, technological; integration of health and social care services; patient-centred model; community services, self-management, and the role of carers, private healthcare, mental health services, healthcare and social care workforce education, changing clinical roles, clinical education
2. Interventions for public health and prevention: shift from treatment to health promotion, healthy ageing, behaviour change, making 'good choices', life-course approach

3. Advances in technology and medical science: artificial intelligence, wearable technology, digital apps, robotics, impact of technology on patient interactions with care, genomics and personalised care, healthcare innovation as a driver of inequality
4. Access to and availability of new kinds of patient and public data: applications at micro- and macro-scale, data linkage, data quality and depth required for changes, privacy

**4.1 Perceived priority areas for health research** [pp.51-63]:

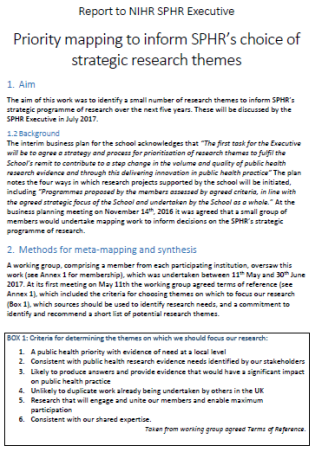
1. Ageing population
    - Complex multi-morbidity, polypharmacy, dementia, frailty
    - Strategies for public health and prevention, behaviour change, population-based studies
    - Drivers of health inequalities
    - Mental ill health: determinants, links with physical health, children and adolescents
    - Maternal and child health for a life-course approach: early intervention, risk factors, development and testing of drugs for use during pregnancy, lifelong impacts of events in utero and intrapartum
    - Anti-microbial resistance: drivers of infectious diseases, novel treatments and vaccines, managing outbreaks
    - Specific disease areas: gastrointestinal and liver diseases, oral health, cancers with poor survival rates
2. Health systems and performance and social care organisation and delivery
    - Health and social care organisation: evaluation and implementation, for older people, informal carers, end-of-life, shared decision making, healthcare workforce
    - Technological and medico-scientific advancements: effective and equitable spread of health technology, personalised medicine and genomics, translating research and innovation into practice

**5. Perceived priorities for supporting future health research and impact** [p.65-69]:

1. Developing new processes and structures for research governance and administration embedding research in the NHS: AI, platforms for remote trials, access to linked datasets
2. Embedding research in the NHS
    - Building capacity and skills for research in the NHS: poor incentives, limited resources among clinical staff, integrating clinical and research career pathways
    - Approaches to translating research into practice: time lag, mechanisms for adopting and spreading research and innovation
3. Driving new approaches to research
    - Facilitating multi-disciplinary, collaborative research: particularly around complex challenges such as chronic diseases, infrastructure to link potential researchers
    - Moving beyond 'traditional' methodologies: away from RCTs towards multi-method approaches for complex interactions and fluid social contexts, qualitative and pragmatic trials, remote or online trials
4. The changing nature of patient and public involvement [PPI] in research
    - To ensure representativeness; socioeconomic status and ethnicity; PPI to set priorities, need to include older populations in research more meaningfully.

## Priority mapping to inform SPHR's choice of strategic research themes

Report to NIHR School for Public Health Research, 2017



Report to NIHR SPHR Executive

Priority mapping to inform SPHR's choice of strategic research themes

1. Aim

The aim of this work was to identify a small number of research themes to inform SPHR's strategic programme of research over the next five years. These will be discussed by the SPHR Executive in July 2017.

1.2 Background

The interim business plan for the school acknowledges that *"The first task for the Executive will be to agree a strategy and process for prioritisation of research themes to fulfil the School's remit to contribute to a step change in the volume and quality of public health research evidence and through this delivering innovation in public health practice"* The plan notes the four ways in which research projects supported by the school will be initiated, including *"Programmes proposed by the members assessed by agreed criteria, in line with the agreed strategic focus of the School and undertaken by the School as a whole."* At the business planning meeting on November 14th, 2016 it was agreed that a small group of members would undertake mapping work to inform decisions on the SPHR's strategic programme of research.

2. Methods for meta-mapping and synthesis

A working group, comprising a member from each participating institution, oversaw this work (see Annex 1 for membership), which was undertaken between 11th May and 30th June 2017. At its first meeting on May 11th the working group agreed terms of reference (see Annex 1), which included the criteria for choosing themes on which to focus our research (Box 1), which sources should be used to identify research needs, and a commitment to identify and recommend a short list of potential research themes.

BOX 1: Criteria for determining the themes on which we should focus our research:

1. A public health priority with evidence of need at a local level
2. Consistent with public health research evidence needs identified by our stakeholders
3. Likely to produce answers and provide evidence that would have a significant impact on public health practice
4. Unlikely to duplicate work already being undertaken by others in the UK
5. Research that will engage and unite our members and enable maximum participation
6. Consistent with our shared expertise.

*Taken from working group agreed Terms of Reference.*

**Aims:** To identify research themes to inform the SPHR's strategic programme of research over the next five years. Criteria for research included: public health priority with evidence of need at a local level; identified by stakeholders; likely to produce answers that will impact practice; unlikely to duplicate work elsewhere; will maximise participation; and consistent with the working group's shared expertise.

**Who was consulted:** Outputs of SPHR stakeholder consultation (2016), key public health priority reports (since 2010); expert working group including briefing papers; review of previous NIHR and MRC research commissioning,
**Methodology to longlist priorities:** Report review with keyword searching; coding frame developed for thematic analysis
**Methodology to agree priorities:** Data mapped by frequency counts of themes. Priorities finalised by working group meetings

**<u>Findings</u>**

**'Longlist' of six themes recommended to the executive:**

- **Children, young people and families** including looked after children, parents, parenting, breastfeeding, maternal health, domestic violence, schools and education settings.
- **Places and communities** including the wider determinants of health, neighbourhoods, build environment, housing, planning, transport, local food system, green space, crime, welfare reform, workplaces, occupational groups, older people, homelessness. Closely related: climate change, sustainability, air pollution
- **Inequalities**: socioeconomic position, income, poverty, education, population sub-groups such as BME, LGBT, people with learning or physical disabilities, migrants, travellers, sex workers
- **Efficient and equitable public health systems**: research to understand and support local public health decision making and prioritisation, including health impact assessments, local plans, strategy, return on investment, disinvestment, and cost-effectiveness analysis
- **Changing behaviour at a population level**: systems level, population level, and lifecourse approaches to changing behaviour, as well as individual level research. Particularly around tobacco, alcohol, food and nutrition. Obesity frequently mentioned, related to diet and physical activity behaviours. Other behavioural exposures also noted, and the importance of risk behaviour clustering, the structural/social/environmental determinants such as commodity industries.
- **Public mental health**: a broad theme, including mental health and wellbeing, including issues such as loneliness, isolation, resilience, suicide, self-harm. Also mental illness and dementia.

**Other themes identified but already being researched by others:**

- Interface between health and social care
- Communicable diseases

**Potential emerging themes** (selected)

- Musculoskeletal and neurological disorders
- Communicable diseases including TB, hepatitis, emergency preparedness, STIs, infection control, flu
- Discrimination
- Community pharmacy, care homes, integrated care
- Screening

# Other prioritisation survey and report summaries

## Public health perceptions survey

Local Government Association, 2018



**Aims:** To capture the thoughts of local leaders on public health delivered by their local authority covering their perceptions of public health since the transition 2013 from the NHS to local government, the priorities councils have set themselves and their ambitions for the future.

**Who was consulted:** Online survey sent to 150 lead members (portfolio holder or chair of Health and Wellbeing Board) of public health in all upper and single tier councils in England.

**Methodology to longlist priorities:** Not stated, it is a repeated survey asking about immediate priorities

**Methodology to agree priorities:** Quantitative responses to survey questions, picking three options from a list. No subsequent analysis.

**Findings** (all in order of priority and where noted by ≥10% of respondents)**:**

**Top priorities for public health in their local area** [p.8]:

1 Giving children the best start in life. 2 Healthy ageing. 3 Strong communities, wellbeing, and resilience. 4 Healthy schools and pupils

**Health issues most concerned with at the present time [**p.9]:

1 Mental health. 2 Obesity in children. 3 Drug and alcohol misuse. 4 Smoking

**Most important areas of potential public health policy development** [pp.9-10]:

1. Licensing and planning around alcohol, gambling, junk food outlets etc.
2. Taxation and economic development to reduce income inequality
3. Protect population form air pollution
4. Schools' duty to cooperate with the DPH/LA about health and wellbeing of pupils
5. Government standards for salt, saturated fat, sugar
6. Minimum unit alcohol pricing
7. Restrict advertising of junk food around children
8. Promotion of junk food from sponsorship of physical activity and sport

**Main barriers to the council achieving better public health outcomes over the next 2 years** [p.11]:

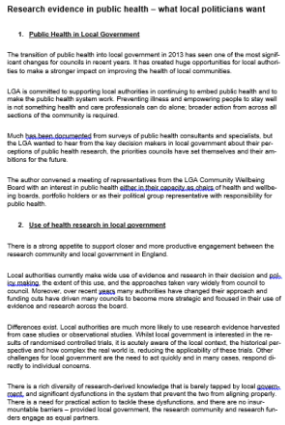
1. Insufficient resources
2. Mismatch between local and central government priorities
3. Working with the NHS
4. Engaging key partners.

**Areas where respondents would like to see more preventive health activity within their council** [p.12]:

1. Mental health
2. Obesity in children and in adults
3. Physical inactivity
4. Drug misuse; dementia
5. Alcohol misuse
6. Smoking
7. Sexual health

## Research evidence in public health – what local politicians want

Local Government Association, 2017


Research evidence in public health – what local politicians want

1. Public Health in Local Government

The transition of public health into local government in 2013 has seen one of the most signif-icant changes for councils in recent years. It has created huge opportunities for local authori-ties to make a stronger impact on improving the health of local communities.

LGA is committed to supporting local authorities in continuing to embed public health and to make the public health system work. Preventing illness and empowering people to stay well is not something health and care professionals can do alone; broader action from across all sections of the community is required.

Much has been documented from surveys of public health consultants and specialists, but the LGA wanted to hear from the key decision makers in local government about their per-ceptions of public health research, the priorities councils have set themselves and their am-bitions for the future.

The author convened a meeting of representatives from the LGA Community Wellbeing Board with an interest in public health either in their capacity as chairs of health and wellbe-ing boards, portfolio holders or as their political group representative with responsibility for public health.

2. Use of health research in local government

There is a strong appetite to support closer and more productive engagement between the research community and local government in England.

Local authorities currently make wide use of evidence and research in their decision and poli-cy making, the extent of this use, and the approaches taken vary widely from council to council. Moreover, over recent years many authorities have changed their approach and funding cuts have driven many councils to become more strategic and focused in their use of evidence and research across the board.

Differences exist. Local authorities are much more likely to use research evidence harvested from case studies or observational studies. Whilst local government is interested in the re-sults of randomised controlled trials, it is acutely aware of the local context, the historical per-spective and how complex the real world is, reducing the applicability of these trials. Other challenges for local government are the need to act quickly and in many cases, respond di-rectly to individual concerns.

There is a rich diversity of research-derived knowledge that is barely tapped by local govern-ment, and significant dysfunctions in the system that prevent the two from aligning properly. There is a need for practical action to tackle these dysfunctions, and there are no insur-mountable barriers – provided local government, the research community and research fun-ders engage as equal partners.

**Aims**: To hear from the key decision makers in local government about their perceptions of public health research, the priorities councils have set themselves and their ambitions for the future.

**Who was consulted**: Meeting of representatives from the LGA Community Wellbeing Board with an interest in public health, either in their capacity as chairs of health and wellbeing boards, portfolio holders, or as their political group representative with responsibility for public health.
**Methodology to longlist priorities**: Meeting of representatives
**Methodology to agree priorities**: -

**Findings**:
**Key challenges** [pp.2-3]**:**

1. Limited engagement of local authority policy makers with research
2. Need to be able to find research gaps and implement what is already known
3. Research often doesn't take into consideration the complex whole systems context
4. Research seen as taking a naïve and narrow view of public policy, and may not engage well
5. Greater use of social and behavioural sciences alongside biomedical methods
6. Return on investment has limited utility in real-world decision making

**Key themes** [p.3]:
**Wider determinant action to shift population means and local authority actions, powers and potential actions**:

1. Regulatory powers of public health
2. Opportunities of devolution
3. Transport and air quality
4. Housing and planning
5. Measuring the impacts of austerity/welfare
6. Best start in life
7. Health, work and worklessness

**Interventions for those with established problems**:
Options for cost-saving and demand management; Rational approaches to health and care restructuring; Objective assessment of approaches to e.g. NEETs, offender services etc.; Resilience; Self-care

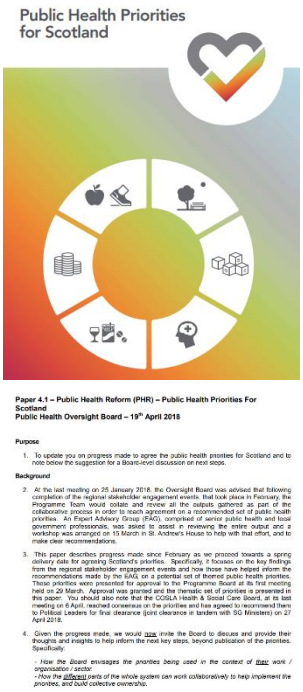
**Actions with healthy individuals or those with risk factors:**
Value for money in PH services and balance of working with the NHS; Accessing the impact of social or environmental prescribing schemes; Getting a proper grip on cost-effective prevention

**Enablers and methods:**
Alternatives to return on investment, decision-making tools for complexity, data governance obstacles, better indicators, social media, big data and digital opportunities, excess treatment costs

**Persistent problems of Public Health** [p.5]: Obesity, mental health, alcohol, STIs, isolation, inequalities.

## Public health priorities for Scotland.

COSLA and the Scottish Government, 2018




**Aims**: The six priorities presented here reflect a consensus on the most important things Scotland as a whole must focus on over the next decade if we are to improve the health of the population. [pp.4-5]

**Who was consulted**: The public and third sectors, public health and other experts,
**Methodology to longlist priorities**: Regional engagement events, collaborative activities. Review of Local Outcome Improvement Plans and other key information sources
**Methodology to agree priorities**: Explicit criteria to assess and weigh stakeholder evidence were developed with public health and other experts. Expert Advisory Group workshops.

**Findings**:

Agreed priorities:

1. Place and community [pp.10-15]
    - Transport infrastructure, empowering communities, access to green spaces, commercial environment, housing, loneliness and isolation
2. Early years [pp.16-21]
    - Early childhood poverty, disability and adverse childhood poverty, pregnancy, attainment gap
3. Mental health and wellbeing [pp.22-27]
    - Feeling good, functioning effectively, positive relationships, sense of purpose.
4. Tobacco, alcohol, and other drugs [pp.28-33]
    - Harm minimisation from all substances, intergenerational effects
5. Poverty and social inclusion [pp.34-39]
    - Growing income and wealth gaps, prevent stigma, tackling the determinants of poverty
6. Diet and physical activity [pp.40-45]
    - Healthy weight, physical activity, marketing of unhealthy foods, active transport,

Tool used for prioritisation to create this report (overleaf) [detailed in Paper 4.1, pp.8-9]:

**ANNEX B: EVIDENCE-BASED CRITERIA FOR CHOOSING SCOTLAND'S PUBLIC HEALTH PRIORITIES**

| Headline | Sub-question | Potential Evidence Sources |
|---|---|---|
| 1.Is this priority addressing an important public health concern? | 1.1 What is the current **'size'** of the problem? | • DALYs from the Scottish Burden of Disease (SBoD) / Global Burden of Disease study / Institute of Health Metrics and Evaluation; Triple I tool (ScotPHO); published literature; DALYs associated with the system / service; Published research |
| | 1.2 How has the problem changed and how might it **change** in the future? | • Historical trend data and future disease burden e.g. demographic changes; socio-economic scenarios |
| | 1.3 What would happen if we **disinvested** in this area? | • International comparisons, published literature, expert opinion |
| | 1.4 What are the **wider impacts**? | • Published research and expert opinion on the externalities associated with this priority on other priorities, social factors such as inclusive economic growth; education attainment; community cohesion, etc. |
| 2.Can we do something about it? | 2.1 Is this issue **amenable to prevention** by known effective measures? | • Gaps between Scotland and comparable country. Comparison of the trend rate of change; rapid review of effective approaches; what leverage do we have to 'nudge' toward this priority – i.e. what is the added value of public health?<br>• *Note: an example of 'rapid review' has been produced and provided by SCPHRP team* |
| | 2.2 Are the measures **cost efficient**? | • Estimates of cost in line with the examples provided above. Map against existing resources |
| | 2.3 Does this priority impact **health inequalities**, or risk worsening them? | • Broadly qualitative indicator of the relative contribution of a priority to overall Scottish inequalities in health. Expert opinion and published evidence where available; Is the system disproportionately focused on one group? |
| | 2.4 **When** might we expect to see results? | • Rapid review of published literature, expert opinion |
| | 2.5 Is there scope for **innovation** on this priority? | • International comparison and expert opinion on whether there is a new way of working; what innovative approaches exist elsewhere that could be applied here? |
| | 2.6 How can communities be **empowered** through this priority? | • Rapid review of published literature, expert opinion |
| 3.Do we want to do something about it? | 3.1 Do the **public** prioritise this issue? | • Review of public surveys or consultations on this topic for example Healthier Scotland consultation. |
| | 3.2 Do **local government** prioritise this issue? | • Use the analysis of the Local Outcome Improvement Plans and Locality Plans to provide insight into the extent to which local government prioritise this issue. |
| | 3.3 Do the **professions** who will likely work on this prioritise this issue? | • Does the priority feature in the FPH Manifesto? This level of support would also be gauged through feedback at the engagement events. |
| | 3.4 Does the **Scottish Government** share the aims of this priority? | • What does the Programme for Government and National Performance Framework say about this priority? Other relevant national policies? Will this priority enhance Public Health leadership and be consistent with the other aims of the Public Health Review? |
| | 3.5 Is this issue best addressed by a **joined-up approach** rather than lying mostly with one agency? | • Expert opinion on whether this the work to achieve this priority shared across partners involved – i.e. does it resonate with the NHS, local government, national government and others? |

## From evidence into action; opportunities to protect and improve the nation's health

Public Health England, 2014


**Aims**: This report sets out seven key priorities where, through working closely with our partners in local and national government, with the NHS, the voluntary and community sector, and with industry and academia, we can make a significant difference over the coming five to ten years.

**Who was consulted**: -
**Methodology to longlist priorities**: -
**Methodology to agree priorities**: Review of statistics on morbidity and mortality, particularly the *Global Burden of Disease* study.

**Findings**:
**Three underpinning themes** [p.14]: Mental and physical health are equally important; we must reduce health inequality; recognise the importance of place and need to build on all of a community's assets.

**Seven priorities**:

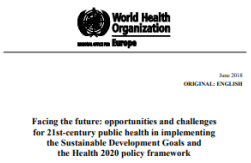
1. Tackling obesity, particularly among children [p.15]
    - Why?: Associated with cardiovascular disease, diabetes, some cancers, poor mental health in adults, and stigma and bullying in children
2. Reducing smoking and stopping children starting [p.16]
    - Why?: England's biggest killer, most start in childhood, stark inequalities, aim to secure a tobacco-free generation
3. Reducing harmful drinking and alcohol-related hospital admissions [p.17]
    - Why?: The leading risk factor for preventable deaths in 15-49 year olds. Increasing mortality from liver disease. Societal cost of £21B/year. Large inequalities.
4. Ensuring every child has the best start in life [p.18]
    - Why?: Building emotional resilience and good education are the most important markers for good health and wellbeing throughout life.
5. Reducing the risk of dementia, its incidence and prevalence in 65-75 year olds [p.19]
    - Why?: Rapidly increasing, huge personal cost and economic impact of £26B/year. No cure.
6. Tackling the growth in antimicrobial resistance [p.20]
    - Why?: Many other medical advances depend on antibiotics. Increasing incidence of resistance.
7. Achieving a year-on-year decline in tuberculosis incidence [p.21]
    - Why?: UK incidence is relatively high, and it disproportionately affects the most deprived.

**Six game changers for positive change** [p.22-24]:

1. The application of behavioural science in the digital age.
2. Place-based approaches under local authorities
3. NHS preventive services implemented at scale
4. Transparency about what works
5. Contribution of employers to improving mental and physical health
6. Application of the concept of *wellness* not just illness or healthcare activity

## Facing the future: opportunities and challenges for 21st-century public health in implementing the Sustainable Development Goals and the Health 2020 policy framework

World Health Organisation, 2018


World Health Organization
Europe

June 2018
ORIGINAL: ENGLISH

Facing the future: opportunities and challenges for 21st-century public health in implementing the Sustainable Development Goals and the Health 2020 policy framework

**Aims**: There is a need for a more comprehensive vision for public health and the strengthening of public health to face the challenges of the 21st century.

**Who was consulted: -**
**Methodology to longlist priorities**: -
**Methodology to agree priorities: -**

**<u>Findings</u>**:


WORLD HEALTH ORGANIZATION REGIONAL OFFICE FOR EUROPE

1. **Current challenges and priorities in national health policy development** [p.4]: national health policies, strategies and plans informed by the SDGs and Health 2020 are vital to achieving health improvement. Such policies are set in a world of complexity and ambiguity, remain fragile and are often under threat. Existing evidence is important, but insufficient. It must be made more relevant and become instrumental in health development and the development of national health policies.
2. **The nature of today's public health challenges** [p.5]: the complex political, social, economic and environmental challenges of the 21st century require multifaceted, multilevel policy interventions, involving both vertical and horizontal integration. In the health field, there is growing evidence of the cost–effectiveness of such interventions. Complex systems approaches are required, with real-time evaluation and feedback.
3. **New scientific and policy thinking** [p.7]: new approaches include those drawn from the present focus on the interactions between the individual and the environment across the life course, ecological public health and epigenetics. There are substantial public health workforce implications in terms of knowledge and understanding.
4. **How can health systems policy respond?** [p.8]: consider new health system concepts, incorporating them into Member States' policy thinking and implementation. In addition to focusing on the coordination and integration of individual services around the needs of individuals and patients, thinking about health systems needs to consider the role of health systems as drivers of equitable health improvement at the population level. Careful reflection, planning and resourcing will be required to incorporate these concepts.

## Word cloud from Society for Social Medicine & Population Health Conference 2018 delegates

Tweeted by Jon Olson @JonOlsen_

**Who was consulted:** Conference delegates
**Methodology to longlist priorities**: Delegate suggestions
**Methodology to agree priorities:** Frequency of mention

**Findings:**
What are the future challenges for population health?


Most mentioned challenges:

- Inequalities
- Climate change
- Funding
- Poverty
- Brexit
- Obesity
- Mental Health
- Austerity