



## What is our evidence base for delivering improvements to the health of the public?

The aim of this paper is to briefly consider the evidence base for Public Health, as part of the supporting information for the development of the FPH strategy (2019-2025). It can also be used to help inform development of the curriculum, training and standards and policy prioritisation work.

The gaps in the evidence base for Public Health are often highlighted, and in the worst case scenario might be used as a reason for not acting. The paper attempts to take a broader approach to identifying the evidence base by considering it under 3 main headings:

- Evidence base to support what we do
- Evidence base to support how we do it
- Evidence base to guide our ethics and values, or philosophy

### 1. Evidence base to support what we do

This is what is often considered as the classic “evidence base” and is usually concerned with delivering interventions eg smoking cessation services, childhood obesity programmes etc. There are a number of sources of evidence of what works:

#### a. Hierarchy of research evidence

The traditional hierarchy of evidence of study designs continues to be used to inform decision making. However, for public health interventions there are many gaps in what is considered to be high value evidence (systematic reviews including Cochrane, and RCTs), with many interventions being difficult to measure using these methods. Other methods have been developed to allow for different study designs being more appropriate for different questions including the Oxford Centre for Evidence-based medicine and the GRADE system which ranks the quality of the evidence. The generation of Real World Evidence (which comes from studies that apply epidemiological methods to data collected from real world settings), enables healthcare intervention and wider population health questions to be addressed. The value of qualitative evidence also needs to be considered here to understand the populations we are working with.

#### b. NICE

NICE produces and updates Public Health guidelines (at the time of writing there were 67 guidelines). These are based on the research evidence described above, but also include expert opinion where there are gaps in the evidence. This enables a broader approach to the generation of evidence for use in service.

#### c. Evaluation

Evaluation should be an integral part of the development and implementation of any programme (and is included in the commissioning cycle) and should form the evidence base for further development. However, it is often an after-thought, carried out once a programme has been implemented, and with insufficient resource and expertise.

Frameworks such as the MRC Guidance on Complex Interventions or the Logic Model approach embed comprehensive evaluation from the start of the development of programmes.

d. **Health economics**

In an environment where resources are scarce, in addition to knowing what works we also need to understand whether it is value for money. The study of health economics provides evidence on cost effectiveness of interventions. There are a number of interactive tools available through PHE, and NICE has produced Return On Investment (ROI) tools.

e. **Public involvement**

The input of patients and the public in the development of any intervention or change to improve health should be considered as a key part of the evidence-base. The evidence generated through this type of approach will be different in different communities but could result in similar outcomes of health improvement.

## 2. Evidence base to support how we do it

There may not be much evidence for tackling a particular health issue but we can learn from how other programmes have been successful - in management terms these are “critical success factors”. There is a body of evidence to support this type of approach:

a. **Implementation Science**

This is defined as the “study of methods and strategies to promote the uptake of interventions that have proven effective into routine practice, with the aim of improving population health” (UCL website). Implementation Science looks at what works, for whom and under what circumstances, questions which are also asked in Realist Evaluation approaches (Pawson and Tilley). Implementation Science can address the questions of how interventions can be adapted and scaled up to work at a population level, beyond the pilot / experimental stage.

b. **Change management**

Much of what we do in Public Health involves change. Change management evidence and approaches can be used to direct how we tackle an issue – there will be some overlap with implementation science evidence (above)

c. **Behavioural science**

In Public Health much of our focus is on the behaviours of the population and how these impact on their health. We can also apply the evidence for behaviour change to our service work – many service redesigns / developments involve changes in behaviour of frontline and other staff. Elements of change management theory and implementation science will include behaviour change of people involved in service delivery.

d. **Systems Leadership of Complex Adaptive Systems**

In Public Health we need to influence complex adaptive systems, working across organisational and disciplinary boundaries - we are usually not in charge and usually don't have a budget. Systems Leadership is “the collaborative leadership of a network of people in different places and at different levels in the system, creating a shared endeavour and co-operating to make a significant change” (taken from slide presented by Debbie Sorkin, Leadership Centre). Understanding and using the evidence of how to achieve this is crucial to our success. A key part of this evidence base is the evidence for how to work effectively in partnership with other organisations and working within teams.

e. **Asset-based approaches driven by communities.**

Asset-Based Community Development is a sustainable community-driven approach building on strengths of local communities. It requires a shift in our relationship with local communities. The evidence base supports how to work in this way, based on experiences in other areas.

### **3. Evidence base to guide our ethics, values and philosophy**

Within Public Health we can take different approaches to improve population health. This section identifies a few of these, these can be seen as part of the wider evidence base of how we should be working and may form the foundation for any interventions.

a. **The Right to Health as a fundamental human right.**

This is the approach being taken in Scotland. The right to health is an inclusive right which includes both the right to health services and also to the social determinants of health (<http://www.healthscotland.scot/health-inequalities/the-right-to-health>). Taking this approach creates a framework with the person at the centre and is key to tackling health inequalities.

b. **Health in all Policies**

The Public Health (Wales) Act 2017 places a duty on public bodies to consider the impact that decision will have on health of their local communities. This is a practical implementation of the Health in all Policies approach agreed by the World Health Organisation which recognises the wider social determinants of health and the need to have an impact on these at a population level.

c. **Nanny state, nudge, or freedom of choice?**

Much has been written on these different approaches to improving health, with evidence demonstrating the effectiveness of the nanny state but also the negative reaction this often creates in the media with “Public Health” often cast as the enemy. This debate will no doubt continue but evidence of approaches taken in different countries can be invaluable here.

d. **Population or high risk approach? (or proportionate universalism?)**

While a population approach is fundamental to public health, the evidence base will need to be considered to identify the best approach to achieve the required outcomes, within limited resources and the required timescales.

This paper is not intended to cover everything that we do in Public Health, but highlights the multiple and diverse areas where we can draw our evidence base from. The Specialty Training Curriculum contains a key area on “assessing the evidence of effectiveness of interventions, programmes and services intended to improve the health or wellbeing of individuals or populations” (key area 2). This could include any (or all) of the sources of evidence detailed above. However the use of evidence underpins the whole curriculum, guiding what we do, how we do it and what approach we take. The curriculum also recognises the gaps in evidence and the approach we can take to help to fill these gaps. Considering the entire curriculum and competencies through the lens of the evidence base helps to create a greater understanding of how it supports and justifies everything that we do.

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