

# Prioritising Investment in Public Health

## Key messages

- Improving the health of the public is a priority for those paying for healthcare.
- Many health investment decisions have been made with limited reference to data concerning effectiveness and cost-effectiveness.
- This is particularly the case in public health interventions where such evidence has not been brought together systematically.
- We have identified eight public health interventions which were found to be cost-effective.
- Payers should review the evidence base which underpins public health investment decisions.



## Prioritising investment in public health

With an increasing elderly population, and epidemics such as obesity now being seen as a health time bomb, intervening to improve the health of the public is a priority for those paying for healthcare.

Considering these challenges, and being in the era of “evidence-based medicine”: a health service of the 21st century, ready access to information concerning the cost-effectiveness of public health interventions should be available to commissioners so that they know what to prioritise and invest in. A health care system that is driven by robust clinical evidence will save lives and money. One such example of the use of evidence is the 1992 Cochrane Collaboration review, which found that women at risk of premature delivery were not getting corticosteroids, which improve the lung functioning of premature babies. Based on this result, the use of corticosteroids tripled in the US, with the result that there was nearly a 10 percentage point drop in the deaths of low-birth-weight babies and millions of dollars were saved by avoiding the costs of treating complications<sup>1</sup>.

Currently this sort of information is not readily available: those that pay for services will either make decisions with limited insight into effectiveness and cost-effectiveness and/or there will be duplication and confusion as many organisations bring the evidence together in different ways. Furthermore, in the English health service, the sole use of the appraisal approach adopted by organisations such as NICE will be very costly and time-consuming – meaning that it is likely to be many years before a view can be taken on a wide range of interventions. Approaches which are deemed to be fit for purpose for commissioners delivering many more results, cost-effectively and in a timely fashion, therefore, have great merit.

A recent rapid study, funded by the Department of Health in England and undertaken by Matrix and Bazian, was published in September 2008<sup>2</sup>. This reviewed 41 public health interventions, with the intention of identifying what interventions were cost-effective<sup>3</sup> in: reducing smoking rates; preventing obesity; preventing dangerous drinking; preventing the uptake of and harm from illicit drug use; reducing the incidence of Sexually Transmitted Infections (STIs); reducing the rates of teenage pregnancy; promoting breast feeding; promoting healthy nutrition and dietary patterns; and promoting health in the elderly.

<sup>1</sup> Taken from a New York Times article by Billy Beane et al <http://www.nytimes.com/2008/10/24/opinion/24beane.html?em>

<sup>2</sup> The report can be found at <http://matrixknowledge.com/prioritising-investment-in-public-health/>

<sup>3</sup> An intervention was defined as cost-effective if its benefits were greater than the costs

## Key findings

### Eight out of the 41 interventions were defined as being cost effective

Identifying what is known to be cost-effective is important as it provides confidence that the interventions are going to be value for money. In this analysis the interventions identified as being cost-effective were:

- Drug therapies for smoking cessation, specifically NRT and bupropion;
- School-based programmes for obesity prevention, specifically interdisciplinary curricula;
- Brief interventions in primary care for high risk drinkers;
- School-based programmes to prevent illicit drug use, specifically life skills training interventions;
- Individual risk counselling to reduce STIs;
- Screening for STIs coupled with treatment;
- Vaccinations for influenza for the elderly;
- Fall prevention programmes for the elderly.

It is recommended that payers identify whether these services are being commissioned and delivered to meet the needs in their area. Where they are not being delivered, payers should identify whether alternative interventions are in place to meet the same objectives and whether the evidence is as compelling as for these interventions.

### Sixteen out of the 41 interventions did not have economic evidence

We could not find studies which looked at the cost-effectiveness of a number of interventions. As many of these initiatives are widely implemented, it is recommended that, before they are introduced into yet more areas, studies are identified or undertaken in areas in which the interventions have already been introduced to justify the continued investment.

These interventions were:

- Mass media campaigns and screening to prevent obesity;
- Mass media campaigns, drugs and psychological therapies to reduce dependence and intensive motivational counselling to prevent dangerous drinking;
- Needle and syringe exchange programmes, methadone and other substitution programmes and screening and identification of drug users to prevent the uptake of and harm from illicit drug use;
- Screening for osteoporosis and community-based vision screening to improve the health of older people;
- Mass media campaigns and antenatal education to promote initiation of breastfeeding;
- Intensive interventions for promoting lifestyle change, school nutrition schemes, mass media campaigns and food labelling schemes to promote healthy eating.

### The remainder of the interventions reviewed had some evidence, but required further modelling to definitively conclude their cost-effectiveness

It is recommended that further modelling work is undertaken in these areas in order to ensure that the cost-effectiveness of these interventions can be assessed. In order to reduce duplication of effort, it is suggested that this work is commissioned and shared through public health networks.

## In conclusion

In the English health context, the lack of readily analysed information for commissioners and public health means that there are substantial investments being made in public health interventions without an understanding of the costs and benefits. Whilst it is clear that many of the interventions are cost-effective, it is likely that some are not, and others will be more cost-effective at the local level. This rapid evidence assessment showed that it is possible to develop conclusions over a broad range of interventions very quickly, in order to identify where payers can feel confident about their investments and where further work is required. With some refinement, this type of assessment, focusing not on the margins of healthcare innovation, but at the core, should underpin payer and research priorities to ensure there is a solid platform and business process for decision-making across the board.

## Recommendations

In order to maximise the impact of investing such public health interventions it is recommended that:

- Those that pay for services audit what public health interventions are currently being delivered to identify whether there is evidence to support their investment.
- Similar Rapid Evidence Assessments are undertaken, covering the wider range of services that are locally delivered.
- Those working in public health and research networks identify or undertake research in the areas where this study could not find cost-effectiveness evidence. Capacity building is undertaken across networks to identify the benefits of evidence-informed commissioning and identify the networks and business processes to support priority setting, scenario modelling and analysis at a local level.

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