NICE Update
NICE public health guidance update

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What’s new


This guidance is profiled below. The summary findings of a recent NICE project on methods for determining the cost impact of public health interventions are also reported.

Preventing type 2 diabetes: population and community level interventions in high-risk groups and the general population

Diabetes is on the rise in the UK, affecting about 2.8 million people—of whom approximately 90% have type 2 diabetes. Diabetes is estimated to account for at least 5% of UK healthcare expenditure, with drug costs alone for people with type 2 diabetes accounting for about 7% of the total NHS drugs budget.

Being overweight or obese is the single biggest risk factor for type 2 diabetes; others include having a large waist circumference, a sedentary lifestyle, a previous history of gestational diabetes or a family history of type 2 diabetes and being older than 40. Also people from certain communities and population groups are at an increased risk of developing type 2 diabetes. These groups include people of South Asian, African-Caribbean, black African and Chinese descent and those from a lower socio-economic background, where the incidence of type 2 diabetes is higher than in the general population.

The guidance is particularly aimed at directors of public health and those working at national and local levels with a role in preventing type 2 diabetes. These include primary care teams, as well as those involved in delivering physical activity interventions, community engagement teams and community leaders.

The guidance considers early intervention to prevent type 2 diabetes as part of an integrated package of local measures to promote health and prevent a range of non-communicable diseases (including cardiovascular disease and some cancers), given the common risk factors involved.

It points out that lifestyle interventions aimed at changing an individual’s diet and increasing physical activity can halve the number of those with impaired glucose tolerance who go on to develop type 2 diabetes. However, the greatest impact on the levels—and associated costs—of type 2 diabetes is likely to be achieved by addressing these behavioural risk factors in whole communities and populations.

The specific recommendations are concerned with the development of an integrated plan for preventing type 2 diabetes and related non-communicable diseases, comprising cost-effective physical activity, dietary and weight management interventions. Interventions should take into account the religious beliefs, cultural practices, age and gender, language and literacy of black, minority ethnic and lower socioeconomic groups. Interventions costing up to £10 per head would need to achieve an average weight loss of about 0.25 kg per head to be cost-effective. Those costing up to £100 per head would need to achieve an average weight loss of about 1 kg per head.

Interventions should be tailored for local communities by recruiting and involving lay and peer workers in their
development; and community resources and outreach projects should be used to improve awareness and increase accessibility to these interventions. Messages should address issues such as stigma and fatalism regarding the development of type 2 diabetes and the assumption that illness is inevitable, and also misconceptions about what constitutes a healthy weight.

Recommendations also include actions to address the adverse environmental factors driving the increasing prevalence of type 2 diabetes. For example, planning regulations should be used to create local environments that encourage people from black and minority ethnic and lower socio-economic groups to be more physically active and adopt a healthier diet by ensuring local shops stock good quality, affordable fruit and vegetables.

**Supporting local investment in public health**

NICE has recently carried out a project on potential new methods for determining the cost impact of—and returns on investment (ROI) from—public health interventions.

A number of activities were undertaken to help develop NICE’s methodology for determining the cost-effectiveness and cost impact of interventions. These included workshops and interviews with commissioners and local decision-makers as well as a review of use of existing methods and tools.

There was perceived to be a lack of relevant data which made it difficult to present a business case for investing in public health interventions. There was tension between the need to realize quick savings and the fact that public health interventions usually have longer term goals. A tension also arises where costs and savings cross organizational boundaries (such as when spending in the education sector results in benefits for the health or criminal justice sectors).

The following criteria were ranked among the most useful basis for making a decision on public health investment: effectiveness, cost-effectiveness, burden of disease, health inequalities and affordability.

The review identified a variety of methods that are used to assess returns on investment. The most common were cost–benefit analysis, cost–consequence analysis, cost–utility analysis and multi-criteria decision analysis. In addition, a number of other related projects and tools were identified, for example several projects carried out by the Public Health Observatory in Yorkshire and Humber and the Health England Local Prioritization tool.

The analyses of a selection of public health interventions showed that different ROI methods produce different rankings which, in turn, can result in different investment decisions. Also both the cost savings and health gains in most cases would be much greater in the longer term, compared with small cost savings in the short term.

Based on the findings, the Centre for Public Health Excellence (CPHE) at NICE is considering a three-step approach to assessing the returns on investment generated by public health interventions.

1. A cost–consequence analysis: all the key costs and consequences would be displayed in a comparable, disaggregated form.
2. A cost–utility analysis (CUA): the outcomes would be expressed in one measure that combines information on life expectancy and health-related quality of life (quality-adjusted life years or ‘QALYs’). The CUA would allow comparisons across different programmes, for example, prevention and treatment. (In the health sector, which has an agreed ‘cost-effectiveness threshold’, a CUA indicates whether an intervention represents good value for money.) Note: CUAs are not always appropriate for a public health intervention and other methods, such as cost–benefit analysis, may be used.
3. The information gathered in Steps 1 and 2 would be available to local decision-makers for them to combine with implementation costs and other details, such as eligible population size and the outcome of an assessment of local need. The resulting analysis would help them to decide which interventions are a priority.

Each step should also capture the timing of the costs and benefits—and the sectors in which they fall.

The further development of this work has now been approved by the Department of Health. The CPHE will develop a prototype product for local authority commissioners showing the potential ROI for health improvement interventions. The first phase of this work will focus on tobacco control.