

Body mass index thresholds for intervening to prevent ill health among black, Asian and other minority ethnic groups

<http://publications.nice.org.uk/lgb13>

Published: 21 January 2014

Introduction

This briefing summarises NICE's recommendations for local authorities and partner organisations on the use of body mass index (BMI) as a signal for preventive action against long-term medical conditions. The focus is on people from black, Asian and other minority ethnic groups (for a [definition](#) see 'Assessing body mass index and waist circumference thresholds for intervening to prevent ill health and premature death among adults from black, Asian and other minority ethnic groups in the UK '). It is particularly relevant to health and wellbeing boards.

This briefing will complement advice in NICE's local government briefing on NHS health checks, due to be published in February 2014.

The following BMI thresholds are recommended as a trigger to intervene to prevent ill health among adults from black, Asian and other ethnic groups:

- increased risk of chronic conditions (23 kg/m² BMI or more)
- high risk of chronic conditions (27.5 kg/m² BMI or more).

This compares with the usual thresholds of 25 kg/m² and 30 kg/m² recommended for intervening with white European adults. (Also see box 1 in 'Assessing body mass index and waist circumference thresholds for intervening to prevent ill health and premature death among adults from black, Asian and other minority ethnic groups in the UK' for [international guidance on BMI/waist circumference thresholds](#).)

Key messages

The prevalence of chronic conditions such as type 2 diabetes, coronary heart disease and stroke is up to 6 times higher (and they occur from a younger age) among black, Asian and other minority ethnic groups. In addition, these groups progress from being at-risk to being diagnosed with these conditions at twice the rate of white populations. So tackling this issue will help tackle health inequalities and satisfy public sector obligations under the [Equality Act 2010](#).

Action now will result in significant social care and health savings, by delaying and improving the management of complications associated with limiting long-term illnesses. It could result in particularly high savings for local authorities with a high proportion of black, Asian and other minority ethnic groups. (See [Make significant cost savings](#).)

Lifestyle interventions targeting sedentary lifestyles and diet have reduced the incidence of diabetes by about 50% among high-risk individuals ([Pharmacological and lifestyle interventions to prevent or delay type 2 diabetes in people with impaired glucose tolerance: systematic review and meta-analysis](#)). This includes people from South Asian, Chinese, black African and African Caribbean descent with a BMI of 23 kg/m² or more, where interventions to identify and manage pre-diabetes have been found to be cost effective.

Diabetes is the most common cause of visual impairment and blindness among people of working age and the most common cause of kidney failure and non-traumatic lower limb amputations. See [Reduce future demand on health and social care services](#). Interventions to

prevent type 2 diabetes will also reduce the risk of other major health problems including Alzheimer's disease, coronary heart disease, hypertension and stroke.

The National Institute for Health and Care Excellence (NICE) provides national guidance and advice to improve health and social care.

For further information on how to use this briefing and how it was developed, see [About this briefing](#).

What can local authorities achieve by using lower body mass index thresholds as a trigger for targeted action?

Tackle health inequalities

Compared with the white European population, people from black, Asian and other minority ethnic groups are:

- more likely to die from cardiovascular disease (rates are 50% higher)
- 3–4 times more likely to have hypertension
- 3–6 times more likely to be diagnosed with type 2 diabetes.

Adults with type 2 diabetes are 2–4 times more likely to have heart disease or a stroke than adults without type 2 diabetes (see the American Heart Association's information on [Cardiovascular disease and diabetes](#)).

Make significant cost savings

If you intervene sooner, using lower BMI thresholds, significant cost savings can be made by:

- reducing the number of people getting type 2 diabetes, saving more than £6000 per person per year ([Estimating the current and future costs of type 1 and type 2 diabetes in the UK, including direct health costs and indirect societal and productivity costs](#))
- delaying the rate someone progresses from being at risk of type 2 diabetes to having it

-
- reducing or delaying the development of any associated complications
 - maintaining economic productivity
 - saving on social care costs.

Help keep people healthy and content with the quality of their care

Diagnosing a disease like type 2 diabetes earlier, and intervening to improve people's ability to self-manage it, gives people a greater sense of control over their lives. It empowers people to make decisions and helps ensure they are 'happy with the quality of their care and support'. This meets the objectives set out in the Department of Health's [Caring for our future: reforming care and support](#).

Earlier diagnosis leads to an increased sense of wellbeing and an improved quality of life (see [Chronic disease management a compendium of information](#)). In addition, prevention and early diagnosis helps to meet the requirements of domain 2 of the [Adult social care outcomes framework](#) (delaying and reducing the need for care).

Reduce future demand on health and social care services by helping people to be less dependent on intensive services

Type 2 diabetes can lead to significant social care costs due to disability and illness including heart disease and stroke, ulceration and other foot problems, retinopathy, vision impairment, kidney damage, sexual dysfunction, miscarriage and stillbirth (see NHS Choices, [Complications caused by diabetes](#)).

People with this or other chronic conditions are more likely to have other complex support needs. Earlier diagnosis, intervention and 'reablement' (helping people manage their daily lives to keep them as independent as possible) can help to manage the need for intensive services and improve independence.

Meet new public health responsibilities

Tackling the increased risk black and minority ethnic groups face at a certain BMI meets a range of indicators in the [public health](#) and [adult social care](#) outcomes frameworks. These include:

- proportion of adults meeting physical activity guidelines
- encouraging uptake of the Health Check programme
- self-reported wellbeing and health-related quality of life
- people know what choices are available to them locally and what they are entitled to
- people are protected as far as possible from avoidable harm, disease and injuries, delaying and reducing the need for care and support
- people are supported to plan ahead and have the freedom to manage risks in the way that they choose
- mortality from preventable diseases such as cardiovascular diseases (including heart disease and stroke) and cancer
- preventable sight loss.

What NICE says

This section highlights the type of activities that NICE's recommendations on the use of lower BMI thresholds for judging the risk of ill health among people from black, Asian and other minority ethnic groups, published up to September 2013, cover. Those with responsibility for directly commissioning, managing or providing services are advised to read the recommendations in full by following the hyperlinks.

Following NICE's recommendations on [BMI and waist circumference in black, Asian and other minority ethnic groups](#), and the basic principles outlined in NICE's local government briefing on [preventing obesity and helping people to manage their weight](#) (2013) will help you make the best and most efficient use of resources to improve the health of people in your area.

Recommendations

Develop an integrated regional and local plan to prevent non-communicable diseases and promote early intervention among black, Asian and other minority groups

For details see [developing a regional cardiovascular disease prevention programme](#) in NICE's 'Diet' pathway and [developing a local plan](#) in NICE's 'Preventing type 2 diabetes' pathway.

Raise awareness among decision makers, practitioners and black, Asian and other minority ethnic groups about the importance of intervening at a lower BMI for these groups

For details see [conveying healthy lifestyle messages to the local community – in particular, to groups at risk of type 2 diabetes](#), and [encouraging people to have a risk assessment for type 2 diabetes and identifying those at risk](#) in NICE's 'Preventing type 2 diabetes' pathway. Also see ['advocacy'](#) and ['language'](#) in NICE's 'Obesity: working with local communities' pathway.

Provide training for staff on how to encourage people to have a risk assessment and to promote a healthy lifestyle

For details see [training to promote a healthy lifestyle](#) in NICE's 'Preventing type 2 diabetes' pathway.

Use lower BMI thresholds for black, Asian and other minority ethnic groups to intervene to prevent type 2 diabetes, coronary heart disease, hypertension and stroke

For details see [Group and individual-level interventions to prevent type 2 diabetes among people at high risk](#) and [Managing risk of type 2 diabetes](#) in NICE's 'Preventing type 2 diabetes' pathway. Also see the [public health action points](#) in NICE's 'Obesity' pathway.

Commission universal prevention services that include a targeted component for black, Asian and other minority ethnic groups aged 25–39

For details see [promoting risk assessment, identifying those at risk, offer brief advice and offer a blood test](#) in NICE's 'Preventing type 2 diabetes' pathway.

Ensure preventive interventions support behaviour change, physical activity and a healthy diet

For details see [recommendations for health professionals and local authorities about weight management programmes \(including commercial programmes\)](#) in NICE's 'Diet' pathway and [group and individual-level interventions to prevent type 2 diabetes among people at high risk](#) in NICE's 'Preventing type 2 diabetes' pathway.

Examples of practice

Examples of how NICE's advice on preventing type 2 diabetes for people at high risk has been put into practice can be found in our [shared learning database](#). They include:

- [Walking away from type 2 diabetes: implementation of a diabetes prevention programme](#)
- [Prosiect Sir Gar – Workplace cardiovascular \(diabetes and CHD\) health assessment and management programme](#).

Note that the examples of practice included in this database aim to share learning among local organisations. They do not replace the guidance.

Although the interventions highlighted were not specifically for black, Asian and other minority ethnic groups, they demonstrate the type of actions that are likely to be effective with these groups.

Developing an action plan

The table below poses a range of questions that could be asked when developing a comprehensive plan to help your local population reduce the risk of illness and premature death from a number of chronic medical conditions.

Assessing opportunities to intervene early to prevent or manage the risk of a range of chronic medical conditions among black, Asian and other minority ethnic groups	Links to NICE recommendations
--	--------------------------------------

<p>1. Have the issues raised in this briefing been taken into account in the joint strategic needs assessment?</p> <ul style="list-style-type: none"> • Collate data for high-risk groups. • Check the local joint strategic needs assessment and undertake health impact assessment as appropriate. • Consider whether services are proportionate to the needs of the communities at risk. 	<p><u>Develop an integrated regional and local plan</u></p> <p><u>Develop a strategy for local authorities and partners in the community</u></p>
<p>2. Do local commissioning strategies and local policies support awareness raising, risk identification, prevention and early intervention for high-risk groups (for example, <u>NHS Health Checks</u>)?</p> <ul style="list-style-type: none"> • Ensure all strategies and policies that can have an impact provide support, not just those related to high-risk groups. 	<p><u>Local action to prevent type 2 diabetes, including strategy, policy and commissioning</u></p>
<p>3. What steps are being taken to ensure prevention and early intervention is incorporated into all appropriate policies, settings and plans?</p> <ul style="list-style-type: none"> • Take steps to ensure the local environment supports physical activity and healthy eating. • Ensure local or national support • Ensure community groups from the high risk communities are involved in service planning and commissioning. 	<p><u>Local action to prevent type 2 diabetes, including strategy, policy and commissioning</u></p>
<p>4. What type of training is available for (and used by) professionals who work with people who may be at high risk?</p> <ul style="list-style-type: none"> • Ensure these professionals carry out routine awareness-raising activities. 	<p><u>Training to prevent type 2 diabetes</u></p>

<p>5. How do local authorities help people to manage their risk by being physically active or adopting a healthy diet?</p> <ul style="list-style-type: none"> • Ensure the needs of all groups, in particular, high-risk groups are addressed. • Consider including other health issues pertinent to high risk groups (such as vaccinations) if call-recall systems (such as NHS Health Checks) are set-up 	<p>Population and community interventions</p>
<p>6. To what extent do local health services encourage high-risk groups to maintain a healthy weight (BMI 23 kg/m² or below) by being physically active and adopting a healthy diet?</p>	<p>Managing risk of type 2 diabetes</p>
<p>7. Do referral routes to specialist support services exist for people at high risk of chronic diseases?</p>	<p>NHS Health Checks Blood tests for people in high-risk groups age 25–39 with a BMI of more than 23 kg/m²</p>
<p>8. Are specialist lifestyle intervention services commissioned to meet the needs of those who are at high risk of chronic diseases?</p>	<p>Group and individual-level interventions to prevent type 2 diabetes among people at high risk</p>

Costs and savings

Improving how well we identify and manage chronic diseases among high-risk groups by implementing all recommendations in the NICE [Diabetes pathway](#) may lead to the following savings.

- In the UK, the direct savings that could be made by preventing type 2 diabetes have been estimated at £8.8 billion (£2588 per person with the disease, based on 3.4 million diagnosed cases). This includes diagnosis, lifestyle interventions, ongoing treatment, management and complications ([Estimating the current and future costs of type 1 and type 2 diabetes in the UK, including direct health costs and indirect societal and productivity costs](#)).

- In the UK, the indirect savings that could be made by preventing type 2 diabetes have been estimated at £13 billion (£3412 per person with the disease, based on 3.4 million diagnosed cases). This includes mortality, sickness, presenteeism (loss of productivity from those who remain in work) and informal care. These costs are predicted to almost double by 2035 ([Estimating the current and future costs of type 1 and type 2 diabetes in the UK, including direct health costs and indirect societal and productivity costs](#)), if not more.
- In England, predictions of any future savings to be made by preventing type 2 diabetes are unlikely to take into account the higher prevalence of obesity among black, Asian and other minority ethnic children compared, with their white counterparts. So even more potential savings could be made if earlier preventive activities take place with these high risk populations. (See [National child measurement programme: England 2011/12 school year](#))
- Interventions to identify and manage pre-diabetes are cost effective. The cost per quality-adjusted life year ([QALY](#)) gained is consistently less than £10,000. See [How NICE measures value for money in relation to public health interventions](#).
- It is also cost effective to use a BMI of 23 kg/m² or more as an indicator of high risk among people aged 25–39 from South Asian groups. The return on investment, through future cost savings, would more than offset the cost of finding, testing and undertaking an intensive lifestyle-change intervention with this group. This is also likely to be true for people from black and Chinese groups (for details see [Economic modelling](#) in 'Preventing type 2 diabetes', NICE public health guidance 38).

Facts and figures

Below are other facts and figures on black, Asian and other minority ethnic groups living in the UK and their risk of a range of diseases:

- People of black African and African–Caribbean origin are 3 times more likely to have type 2 diabetes than the white population. It is also more common among Chinese people ([Modern standards and service models – diabetes: national service framework standards](#)).
- People of black African, African–Caribbean and Chinese origin are more at risk of stroke than their white European counterparts ([Obesity and ethnicity](#)).

- Excess body fat contributes to more than half of cases of type 2 diabetes, 1 in 5 cases of heart disease and between 8 and 42% of certain cancers (breast, colon and endometrial) ([Annual report of the Chief Medical Officer 2002. 5. Obesity: defusing a health time bomb](#)).
- Pakistani and Bangladeshi men and women and Indian and Chinese women were all less likely than white men and women respectively to meet the physical activity guidelines ([Ethnic differences in physical activity, diet and obesity](#)).
- Men from most ethnic groups and women from Pakistani and Bangladeshi backgrounds were more likely than white men or women to eat 5 portions of fruit and vegetables a day ([Ethnic differences in physical activity, diet and obesity](#)).
- Children of South Asian origin are over 13 times more likely to have type 2 diabetes than white children ([Type 2 diabetes in obese white children](#)).

Support for planning, review and scrutiny

Council scrutiny activities can add value to strategies and actions to improve the public's health. Effective scrutiny can help identify local health needs and check whether local authorities are working in partnership with other organisations to tackle the wider determinants of health. NICE guidance and briefings provide a useful starting point, by suggesting useful 'questions to ask' during the scrutiny process.

A range of other support tools are available on the [Centre for Public Scrutiny](#) website and via [Into practice](#) on our website.

Other useful resources and advice

The following resource may also be useful:

- [Diabetes prevalence model for local authorities in England](#). This Public Health England model estimates diabetes prevalence by local authority. Calculations take into account the potential impact of an increasingly overweight and obese population. Apply the model to your own population data using the 'define your own area' and 'define own ethnic group' tools.

About this briefing

This briefing is based on NICE guidance published up to July 2013 about BMI thresholds for judging the risk of chronic conditions among black, Asian and other minority ethnic groups (see the [NICE website](#) for details of published briefings and briefings in development). It was written with advice from NICE's Local Government Reference Group and using feedback from council officers, councillors and directors of public health.

It is for local authority officers and elected members and their partner organisations in the health and voluntary sectors, in particular, those involved with health and wellbeing boards. It will also be relevant to members of local authority scrutiny committees.

This briefing may be used alongside the local joint strategic needs assessment to support the development of the joint health and wellbeing strategy.

This briefing is intended to be used online and it includes hyperlinks to sources of data and further information.

About NICE guidance

NICE guidance offers:

- recommendations based on the best available evidence to help you plan, deliver and evaluate successful programmes
- an objective and authoritative summary of the research and evidence, reviewed by independent experts from a range of backgrounds and disciplines
- an assessment of the effectiveness and cost effectiveness of public health interventions.

Copyright

© National Institute for Health and Care Excellence 2014. All rights reserved. NICE copyright material can be downloaded for private research and study, and may be reproduced for educational and not-for-profit purposes. No reproduction by, or for, commercial organisations, or for commercial purposes, is allowed without the written permission of NICE.

ISBN 978-1-4731-0424-2