The views expressed in this report are based on feedback from participants in this study, and they do not represent the views of NICE, or of Word of Mouth.

Report for the Centre for Public Health Excellence, at The National Institute for Health and Clinical Excellence

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Acknowledgements
Fieldwork of this nature would not be possible without the co-operation and commitment of the participants, who gave their time freely, in order to help the development of this important public health guidance. We are grateful to all those who agreed to be interviewed, who attended group discussions and to those who provided comments via the online consultation, for their time and effort and for making their personal and professional insights available to us.

We are grateful to the team at the Centre for Public Health Excellence at NICE, for their help and guidance, in particular to Karen Peploe.
Executive summary

In November 2011 NICE published draft guidance on the "Prevention of Type 2 Diabetes: Risk Identification and Interventions for Individuals at High Risk". This is a report on feedback obtained from the field testing of this draft guidance, in which we explored the opinions of a range of relevant practitioners, managers and commissioners, in order to enable fine tuning of the final published guidance.

This section first examines a number of overarching themes, and then summarises key findings on individual recommendations

Overarching themes

Most participants welcomed the draft guidance, generally considering it to be clear, relevant and useful. The majority of participants thought the broad principles were positive, and most reservations were focused on practical considerations around implementation.

The draft guidance was published at a time of considerable change within the NHS, with Public Health transferring to Local Government, widespread restructuring within community health services and the anticipation that Primary Care Trusts will soon be replaced by Clinical Commissioning Groups. It should be noted that relatively few participants ventured opinions on how these changes would directly affect the draft guidance. Some thought that the transfer of Public Health into Local Government would help to "join up" health with other relevant services, and some were worried that Clinical Commissioning Groups would be less likely to invest in the prevention aspects of clinical work, but a more common view was that it was too soon to assess the impact of these changes.

The most commonly expressed concern about the guidance was in relation to its diabetes-only focus, in terms of both patient-centric appropriateness, and cost effectiveness.

Many participants had a strong preference for assessing risk for a number of non-communicable diseases within a target population. These participants often had existing locally enhanced services (particularly CVD risk assessment). They were concerned about how this new guidance would fit in with the existing programmes, to avoid individuals being called up for multiple appointments. Similarly, many participants had reservations about diabetes-specific interventions, preferring a broader focus on lifestyle related risks.

Another major concern was around the implications for service capacity. This concern was often based on current financial restrictions, and in some cases, by a worry that it was becoming more difficult to justify investment in prevention activity. Those in areas with high proportions of the population on low incomes and from Black and Minority Ethnic (BME) communities were particularly concerned, since they interpreted the guidance as requiring the assessment of a very high proportion of their adult population.

We had reports that the resources available to fund lifestyle-change programmes were reducing. Participants reporting this experience tended to be concerned that implementation of the draft guidance would lead to a considerable increase in the numbers being referred to such services, just as the relevant capacity was diminishing. With this
mind, a number of participants were concerned that the stage 2 thresholds (e.g. FPG 5.5+) were set too low and would in effect be unaffordable.

Given that money is less easily available, a significant number of participants were concerned that this draft guidance would be difficult to fund. Although nobody disputed that early identification potentially produces significant savings in the long term, there were doubts over the effectiveness of achieving lifestyle change among patients who do not currently feel unwell. Some commented on the fact that the guidance does not seem to include readiness for change in the eligibility criteria for lifestyle-change interventions.

The presence of multiple providers of risk assessments was seen as a positive by most participants, in terms of engaging with the maximum number of eligible people, particularly those less likely to visit a GP clinic. Nevertheless, it was widely thought that having multiple providers would lead to problems of communication and coordination. Many participants would like the draft guidance to have said more about the administrative infrastructure underpinning the risk assessment and recall delivery model.

A number of participants strongly stated that the guidance should feature in the primary care Quality and Outcomes Framework, though others pointed out that this could only be achieved if other priorities were dropped.

**The flowchart**

Most participants liked the flowchart for its concise summary of the process. Some mentioned that an illustration of this nature was helpful to show to patients. Some participants asked for some of the subsequent recommendations to be presented in a similar way. Nevertheless, participants also pointed out a number of aspects which they felt were less than totally clear.

Recommendation 1 refers to ‘Stages one and two’ but these are not currently shown on the flow chart. It was suggested that the stages should be indicated graphically so that the relationship with recommendation 1 is more apparent. The pathway for those aged 25-39 and 75+ should be spelt out more clearly. In relation to those two age groups, there is a danger that the term "limited evidence" will be interpreted as "don't do anything".

**Recommendation 1: Risk assessment**

Most participants found this recommendation to be clear, though there were a number of specific queries.

A number of participants believed that the list of action takers was too long. Typically these participants were concerned that there was no clear leadership, and responsibility was spread too thinly across the long list. Some would like to have seen GPs identified as having the primary responsibility.

GPs/primary care settings are not mentioned specifically as action takers, and this seemed strange to a number of participants, since they will be very important to the delivery of this recommendation.
It would be helpful to specify that stages 1 and 2 can be conducted by different providers and in different settings.

The pathway for those under 24-39 and over 75+ was not completely clear.

A number of participants expressed the view that some GPs were strongly committed to the way they currently conducted blood tests, and would need to see clear evidence to justify a change in practice. A small number of participants were not immediately clear that the draft guidance allowed GPs a choice in which of the two blood tests to use. It is important that the guidance is very clear in stating the evidence base for the recommended blood tests, and equally clear in saying that the clinician has a choice of which one to offer the patient. However, some participants believed strongly that some of those at high risk would be missed if only one blood test was used.

It is not clear from the draft recommendation whether the Leicester and Cambridge risk assessment tools are free of charge, or would cost money. Participants at both frontline primary care and senior public health management levels had concerns about the financial implications of having to give these tools out freely.

The "NHS Health Check programme" is not a universally recognised name, and it would appear that much of this work is done under locally enhanced services.

**Recommendation 2: Encouraging people to have a risk assessment**

Many participants found it difficult to talk specifically about recommendation 2, since it is so closely related to recommendation 1. Some thought that it suggested that the long list of providers (including non-clinical agencies) would be conducting both stages 1 and 2. Some suggested swapping the sequence, since encouragement logically comes before delivery.

The most common concerns around recommendation 2 were in terms of responsibility for coordination across such diverse action takers, the challenge of including the "hard to reach", and the cost and capacity implications of staff training, staff time and outreach work.

The issue of staff training was quite widely acknowledged as an important issue, particularly since this recommendation requires messages about lifestyle change to be conveyed to people who do not necessarily feel unwell and do not recognise the risks and consequences of type 2 diabetes.

**Recommendation 3: Communicating the risks of type 2 diabetes and the benefits of prevention**

This recommendation was thought to be relevant and useful, though there were some concerns around whether risk assessment providers can take the main responsibility for the actions specified in the recommendation.

Those noting the link with the NHS Health Check programme were positive about that connection, believing that such integration would enhance the likelihood of the guidance being implemented.
Many participants were concerned that this would become "another priority" to deliver, at a time when funding is tight and prevention work is more difficult to justify to Commissioners. This concern relates to capacity and staff skills/training, but also to the expectation that this will be a challenging population to engage, because many identified as at risk will not feel unwell and may not be ready to change.

It was thought that primary care staff do not always have the skills to deliver lifestyle change messages.

**Recommendation 4: Reassessing risk**

This recommendation was generally thought to be clear, though some participants missed the reference to the need to "use clinical judgement", and in those cases tended to think it was somewhat inflexible.

Most areas had an existing reassessment process, normally using a narrower definition of eligibility (e.g. having a first-degree relative with type 2 diabetes) for the target population base, and with different intervals between reassessments. The draft guidance tended to be seen as a scaling up of these existing processes, in terms of broadening eligibility and bringing more patients in for future reassessments. This raised widespread concerns about capacity.

The biggest single concern about recommendation 4 related to the need for an underlying administrative infrastructure, with communication and coordination across multiple providers. (Note that most of these participants would not have seen the commissioner’s responsibilities set out in recommendation 16). This relates to the guidance as a whole, but recommendation 4 tended to prompt this discussion. Participants were worried about duplication of effort, poor communication and lack of coordination across providers, inconsistent IT systems, and the risk that the most vulnerable groups would "slip between the cracks".

**Recommendation 5: Matching interventions to risk**

The majority of participants thought that this recommendation was clear and broadly in line with existing practice, notwithstanding capacity concerns relating to broader eligibility criteria, lower risk thresholds and the future availability of appropriate local services to which people can be referred.

The major concern about this recommendation was around capacity, both in terms of the workloads of primary care staff and whether appropriate local services would be available, given the current financial climate. A number of participants also pointed to the difficulty of keeping up-to-date with changes in local services.

Some participants anticipated poor patient compliance with interventions among those for whom diabetes is only a potential outcome. This was put down partly to a lack of basic knowledge about the seriousness of diabetes. It was also pointed out that many of the more vulnerable groups, such as those with mental health problems, may find it difficult to access services to which they were referred.
Recommendation 6: Quality-assured intensive lifestyle-change programmes

Not everyone is familiar with the term "Quality Assured" (QA). For some providers the lack of familiarity made them wary of QA, but some others were perhaps overconfident in their ability to achieve QA accreditation, possibly because they did not fully understand the processes required. NICE may wish to consider inserting a brief explanation of quality assurance, and its implications in terms of administration and auditing.

Among the voluntary sector/community groups participating, some were worried about the implications of achieving quality assured accreditation. Opinions tended to be grouped around three positions. Some have experience of QA and found it to be expensive and time-consuming; others understood and supported the rationale behind the recommendation; a third group were simply unfamiliar with QA and wanted more information.

There was some uncertainty about the extent to which this recommendation was evidence-based, and some participants did not realise that the wide range of delivery models proposed was related to diverse needs of different groups in the population. It may be worthwhile amending the text to be more explicit on these points.

Some participants were not familiar with delivering such interventions by telephone and computer based means. Some detail on these approaches would be helpful to support implementation. Some questioned whether national support could be made available, such as having a website to support online delivery.

As noted on other recommendations, concerns were expressed about the fact that the "pathway" into lifestyle-change interventions did not include readiness to change as an eligibility factor. These participants also tended to have concerns about the intensity (e.g. high number of hours) of these interventions. Such intensive interventions provided for people who would often not be ready to change, led to significant scepticism about whether local commissioners would implement this recommendation.

Participants thought that interventions of this nature would be relatively expensive. This added to the scepticism referred to above.

Some participants wanted to adapt interventions for local circumstances, and to broaden the focus to be suitable for those at risk of other lifestyle related diseases. Having a broader focus was thought to be more appealing to commissioners in terms of cost effectiveness.

It was widely acknowledged that this recommendation brought with it considerable training requirements.

A number of participants said that this recommendation needed a social marketing campaign to back it up. It was suggested, for example, that some social groups such as Asian women would find it difficult to change without broader recognition within their community, about the risks and consequences of type 2 diabetes.
Recommendation 7: Dietary advice
There is a view that the public are confused by inconsistent messages around dietary advice, and this recommendation was welcomed as an authoritative reference point.

Some thought that this recommendation needed tailoring at the individual and community levels, to ensure that it is culturally appropriate.

Conveying this type of information is considered to be a very skilled task, and the recommendation needs to be backed up with relevant training. However, at a time when Dietitians are reporting difficulty in securing funding for prevention work, the likelihood of obtaining funding for relevant training and support materials was a cause for concern.

Recommendation 8: Physical activity advice
A number of participants said that the target activity levels were higher than was realistic for their patients. With this in mind, it was suggested that a social marketing campaign would be helpful to back up the recommendation, using very simple language and featuring low intensity activity, rather than more vigorous activity.

Participants reported that local authority leisure services were being cut back in their areas, causing concerns about whether existing services would continue to be available.

Recommendation 9: Weight management advice
Two participants drew attention to what they regarded as a contradiction in the recommendation. This related to the aim of a 5-10% weight loss, followed by the recommendation to achieve a BMI within the healthy range. For many obese people a 5-10% weight loss would not put them in the healthy range.

One Dietitian asked for a clear explanation of what was meant by a "structured weight loss programme".

As with recommendation 8 there were concerns around the training/skills implications, and as with recommendation 9 there were concerns about reductions in local services.

We had a number of miscellaneous but interesting suggestions from participants: the recommendation should emphasise the need to lose weight gradually over time; it should explain the relevance of waist measurement; it should state that culturally appropriate services need to be provided; and finally, for patients with complex needs, clinical judgement should be used in directing them to specialist services.

Recommendation 10: Diabetes prevention programmes for black, minority ethnic and vulnerable groups
This was generally considered a clear recommendation, though a minority did ask for more specificity in terms of which Black and Minority Ethnic (BME) communities should be considered under this recommendation.
Some participants thought that BME communities and vulnerable groups should each have a dedicated recommendation, but a few suggested focusing recommendation 10 on vulnerable groups, and amending other recommendations (especially recommendation 6) to specify the need for cultural appropriateness to enhance engagement from BME communities.

Participants understood that the long list of action takers reflected the diversity of the population addressed by this recommendation. However there were concerns that the lengthy list would lead to duplication of effort and poor coordination. Working with existing clinical diabetes networks would be one way of improving coordination.

Most participants supported the recommendation to work with community leaders, though there was a degree of scepticism about the effectiveness of this approach, and we were reminded that the most significant barriers were not always culturally specific (e.g. cost and childcare).

As with other recommendations, there were concerns about the cost of implementation, particularly in areas with a high BME population, and significant preference for programmes that were not specific to diabetes.

For some participants, although this recommendation was considered to be a good idea, it was thought unlikely to be funded, because of financial resource concerns.

**Recommendation 11: Diabetes prevention programmes for people in long-stay institutions and residential care - this was not covered in this field work**

This recommendation was not specifically covered in this field work, but one participant was a former Pharmacist in the Prison Service. His only comment relevant to recommendation 11 was to say that implementation efforts need to be targeted at appropriate institutions, since some prisons are effectively short stay institutions, through which prisoners move on very quickly, with negligible opportunity for engagement on health issues.

**Recommendation 12 Evaluation of intensive lifestyle-change programmes**

Although one participant regarded this recommendation as "too obvious", others misunderstood its meaning, thinking that the evaluation was at the individual level, or thinking that it implied that interventions might have to be extended to 12 months duration. This suggests that it may be difficult to pitch the text in a way that is appropriate for everybody.

The major barrier to implementation of this recommendation is likely to be the cost of collecting the data on longer-term outcomes, after the intervention has finished and engagement with the client has ceased.
Recommendation 13: Use of medication
There were some concerns about the strength of the evidence base\(^1\) for the use of metformin, and its appropriateness for those at risk of diabetes.

It was thought by some participants that patient compliance would be a significant issue for this recommendation, because some participants believed there to be side effects with metformin. It was suggested that the recommendation should reference consultation with the New Medicine Service, which seeks to improve patient compliance.

Recommendation 14: Surgical intervention
This recommendation was considered clear, but some queried why it had been included, since NICE has other existing guidance on this subject.

All participants were supportive of the recommendation, but thought it would be controversial. It was commonly reported that funding for bariatric surgery had been stopped, or "rationed" through amending eligibility criteria. Consequently, there was a strong preference among some for the recommendation text to allow flexibility at local level, such as being less prescriptive about BMI criteria, and making a reference to the need to follow locally applicable pathways.

A number of participants were insistent that patients should see a specialist clinician (e.g. obesity specialist) before being referred to the surgeon. This additional stage would eliminate any underlying confounding medical factors, and would ensure full consideration of any other "significant condition that could be improved if they lost weight".

Recommendation 15: Assessing and evaluating local need and capacity
This recommendation was generally considered clear and relevant, though there were some indications that it was seen as "ideal", but not always realistically achievable. It would seem that capacity mapping and evaluation of the type described in the recommendation tends to be applied when necessary, rather than systematically, because of financial and resource constraints.

One participant pointed out that some local agencies may already have done some of the mapping, and that the task does not always need to be done from scratch. Another participant suggested that the recommendation should state that stakeholders need to be involved at the action planning stage.

One potential barrier was mentioned, around the ability of primary care to use local service information effectively, since many GPs relied on paper information rather than computerised systems.

\(^1\) Note that most participants had not read the full draft guidance, and would therefore not have seen the explanation about relevant considerations or the evidence statements when making this recommendation.
Recommendation 16: Commissioning risk assessment programmes
There is potential for confusion around the term "integrated risk assessment programmes". For many participants a key feature of the draft guidance was the lack of integration with CVD and other programmes, and this tended to dominate their interpretation of the word "integrated".

Concerns around funding were another major feature of responses to this recommendation, particularly for areas with a high proportion of the population on low incomes, and coming from BME communities. It was thought unlikely that significant additional funding would be made available, and consequently it was thought that other priorities would need to be dropped or cut back to facilitate implementation of this recommendation.

Some participants thought it inappropriate to commission occupational health services, which were seen to be the responsibility of employers.

As noted on recommendation 15, it was thought to be difficult to effectively disseminate and update comprehensive local service information to primary care, because of the preference among many GPs for paper documents.

As noted on earlier recommendations, it was pointed out that a clear and strong administrative infrastructure would be required, to coordinate effectively across multiple providers.

Recommendation 17: Commissioning intensive lifestyle-change programmes
In line with opinions expressed on earlier recommendations, some thought it unlikely that such services would be commissioned specifically for diabetes prevention, believing that this work should be integrated with the prevention of other non-communicable diseases.

Aside from this issue, discussion on this recommendation was dominated by the concerns around the specification of eligibility for bariatric surgery, as discussed on recommendation 14.

Recommendation 18: National public health programmes
This was the first mention of national action in the draft guidance. One participant requested an explanation of the rationale behind national action, and another asked for clarification on whether the third, fourth and fifth action points were local or national responsibilities.

Opinion on relevance was divided between those who saw a clear role for national standard-setting with room for local flexibility, and those who were concerned that these issues should be left for local services to determine.

Some were concerned that this recommendation would require the establishment of a new national body to implement the recommendation.

There were some concerns that national action would set a high standard, but one which was unaffordable, or inappropriately prescriptive at a local level. It was suggested that the
recommendation should state that the aim is to ensure high standards for evidence-based practice, but that there will be flexibility in the way in which these matters are applied locally.

Recommendation 19: Training and professional development (note that only part of this recommendation was covered in fieldwork)

Throughout this fieldwork concerns were expressed around consistency of messaging, knowledge about local services and communication between diverse organisations. Consequently the great majority of participants considered this recommendation to be relevant and useful.

Some participants believed that any training related to the guidance should include a reference to the administrative processes necessary to implement the guidance effectively.

Some participants thought that the recommendation should call for mandatory training, and for commissioners to specify training in contracts, because there is a strong risk of poor compliance otherwise. The reasons behind fears of poor compliance with training related to cost and practical issues such as staff turnover.

It was thought that different levels of training are needed for different people. Health professionals may already have significant knowledge in the relevant field, and may therefore need only a little additional information. Those involved in risk assessments would need a higher level of training than those involved only in encouraging people to have risk assessments.

One participant pointed out that the recommendation seems mainly to refer to clinical issues, and called for a strong focus on community engagement.

As with other recommendations, some did not like the diabetes-specific focus of this recommendation, which was seen as unhelpful by those emphasising a more holistic view of health.
1 Introduction

1.1 Structure of the report
This report contains the following sections:

The executive summary can be found at the front of the report. This summarises both the main overarching themes from the fieldwork, and key feedback on individual recommendations.

Section 1 provides an introduction and background information to help the reader understand the context.

Section 2 describes the project objectives and fieldwork methods employed.

Section 3 provides detailed reporting on the individual recommendations.

Section 4 provides discussion on key findings.

1.2 Overview
The Centre for Public Health Excellence (CPHE) at The National Institute for Health and Clinical Excellence (NICE) was asked by the Department of Health to develop public health guidance on the prevention of type 2 diabetes among high risk groups. This report describes the methods employed - and the feedback obtained - in relation to the field testing of recommendations in the draft guidance on Prevention of type 2 Diabetes: Risk Identification and Interventions for Individuals at High Risk.

NICE is committed to thorough consultation in the process of its guidance development. Consequently the draft guidance was subject to both field testing and stakeholder consultation from November 9 2011, to January 9 2012. This is a report on the fieldwork conducted with practitioners, managers and commissioners between November 21 and December 19 2011.

1.3 Background
This guidance seeks to set out effective and cost-effective means of identifying those at high risk of type 2 diabetes, and recommending appropriate interventions. This is a serious concern for the individuals affected, since diabetes can lead to serious, long-term complications, such as retinopathy, nephropathy and cardiovascular disease. For the NHS, the financial implications are enormous, with diabetes already accounting for 5% of healthcare expenditure and 10% of hospital expenditure.

The key risk factors for diabetes are well-established, and include obesity, a large waist circumference, a sedentary lifestyle, family history of type 2 diabetes, a history of gestational diabetes in women, and being aged over 40. Some specific social groups are known to have a high risk of type 2 diabetes, namely South Asians, people of African-Caribbean and Black African and Chinese descent, and those from lower socioeconomic groups.
The full draft guidance can be found at
(http://www.nice.org.uk/guidance/index.jsp?action=download&o=57026)
2 Aims and methodology

2.1 Fieldwork aims and questions

The NICE methods manual for developing public health guidance describes the role of the fieldwork stage in helping to further develop draft guidance:

‘The fieldwork phase tests how easy it will be for policy makers, commissioners and practitioners to implement the draft recommendations and how the recommendations will work in practice’.

The general aim is therefore to ‘road test’ the draft recommendations. This involves exploring the views of a wide range of practitioners, with subtly varying perspectives, and drawing out insights that will help to fine tune the recommendations before implementation.

The objectives of the fieldwork stage were clearly set out in the project specification, in terms of examining the relevance, utility and factors affecting implementation. More specifically, the fieldwork was required to examine the following questions:

- What are their views on the relevance and usefulness of these draft recommendations to their current work or practice?
- What impact might the recommendations have on current policy, service provision or practice?
- Given the current background of rapid organisational change and financial pressures, what are their views on the relevance, usefulness and implementability of these draft recommendations in the future?
- What factors (for example available time, training) could impact – positively or negatively - on the implementation and delivery of the guidance?

When reading the report, please bear in mind that not all fieldwork participants were familiar with NICE guidance on "Preventing type 2 diabetes - population and community interventions", which addresses some of the suggestions made by participants in this report, particularly in terms of the need to convey messages about the risks and consequences of type 2 diabetes at the population and community level. This report can be found on the following link.

http://www.nice.org.uk/guidance/PH35
2.2 Fieldwork method

Fieldwork was conducted in accordance with the principles set out in the NICE methods manual for public health guidance development. The table below summarises the approach.

<table>
<thead>
<tr>
<th>Stage</th>
<th>Description</th>
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<tbody>
<tr>
<td>Stage 1 Selection of fieldwork areas</td>
<td>Three areas of England were selected, with the purpose of reflecting geographical differences and containing significant population proportions from the targeted high risk groups. The areas chosen were: 1. London 2. Greater Manchester 3. Birmingham and immediately surrounding areas</td>
</tr>
<tr>
<td>Stage 2. Compilation of a list of relevant potential respondents</td>
<td>Desk research using the internet and telephone.</td>
</tr>
<tr>
<td>Stage 3. Review early draft of guidance recommendations to be tested</td>
<td>This led to refinement of the list of those invited to participate in terms of their roles and the organisations in which they worked.</td>
</tr>
<tr>
<td>Stage 4. Fieldwork</td>
<td>Fieldwork took place between November 21, 2011, and December 19, 2011. Completed fieldwork comprised three discussion groups and 30 interviews.</td>
</tr>
<tr>
<td>Online consultation</td>
<td>An online consultation, inviting responses to each of the 19 recommendations, was made available in December 2011, and a link sent to relevant professional bodies. A total of 18 people responded to the consultation.</td>
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</table>

A total of 280 relevant practitioners, managers and commissioners were identified as potential participants for the fieldwork. Once the final fieldwork design was agreed, these individuals were allocated to the interview/discussion group profile and invitation e-mails were sent.

The invitation e-mails were followed up with telephone calls and (where necessary) further e-mails, in order to confirm participation and agree appointments for interviews or attendance at discussion groups. Most of the interviews were conducted on the telephone. Discussion groups were conducted face to face, with one held in London, one in central Birmingham and the other in central Manchester.
All discussion groups and interviews were digitally recorded and transcribed.

The draft guidance contained 19 recommendations, 18 of which were examined in the fieldwork: recommendation 11 was not included in the main fieldwork, although it was covered in the online consultation. This was because the majority of the ‘actors’ for this recommendation were unique to this recommendation and no other recommendations being tested by the fieldwork were directly relevant to them. This recommendation was however subject to the simultaneous stakeholder consultation. There were too many recommendations to cover in a single interview/discussion group. As a result, each fieldwork participant was asked about a specific set of recommendations, which was pre-determined in consultation with NICE, according to the role of the participant. The specific recommendation numbers covered are shown below:

<table>
<thead>
<tr>
<th>Respondent category</th>
<th>Recommendations covered</th>
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<tbody>
<tr>
<td>Commissioners, Senior Public Health, Health and Well Being Board members</td>
<td>1-5, 12, 15-18</td>
</tr>
<tr>
<td>The NHS Health Check programme</td>
<td>1-5, &amp; 18</td>
</tr>
<tr>
<td>Diabetologists and GPs</td>
<td>1-6 &amp; 10 &amp; 13 &amp; 14</td>
</tr>
<tr>
<td>Dietitians</td>
<td>1-10 (particular focus on 6-9)</td>
</tr>
<tr>
<td>Obesity leads</td>
<td>2, 3 &amp; 6-10</td>
</tr>
<tr>
<td>Practice Nurses</td>
<td>1-10 (particular focus on 1-5)</td>
</tr>
<tr>
<td>Dentists, Ophthalmologists</td>
<td>1-10 (particular focus on 1-5)</td>
</tr>
<tr>
<td>Community Pharmacists</td>
<td>1-10 &amp; 13</td>
</tr>
<tr>
<td>Discussion groups</td>
<td>1-10 &amp; 19</td>
</tr>
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</table>

Interview duration varied, with a typical range of between 35 minutes and 60 minutes. Discussion groups had a duration of 90 minutes.

The discussion guide, online questionnaire and consent form can be found in the appendices.

2.3 Fieldwork coverage – types of practitioners and organisations

There were a total of 84 fieldwork participants, with 53 attending the three discussion groups, and 31 taking part in the 30 interviews (i.e. one interview was conducted with two participants). In addition, 18 people accessed the online consultation.

Discussion groups
The numbers of participants attending the discussion groups were as follows: 21 in London, 13 in Birmingham and 19 in Manchester.

Two facilitators were present at each discussion group. Each group began with a whole group session covering information about "housekeeping" matters and project background, and discussion on the flowchart. Participants were then split into two smaller groups, which were separately facilitated, in order to discuss the recommendations. This was done in order to enable more participants to contribute their views within the limited time available.
The roles of those attending are summarised below. The following job titles of those attending illustrate the range of roles performed by those at the discussion groups:

**Health Trainers**
- Managers of Community Groups involved in healthy eating/physical activity programmes
- Manager of Expert Patients programme
- Senior manager of a Health and Wellbeing Board
- The NHS Health Check programme managers
- Representatives from Diabetes support/prevention group

**Practice Nurse**
- Community Nurse
- Physical Activity/Sports Development managers

**NHS Dietitians**
- Consultant Dietitian representing Weight Management company
- Health Professionals working with people with learning disabilities
- Health Professionals working with people with mental health problems
- Health Professionals specialising in working with people with long-term conditions
- NHS Health Improvement managers

**Public Health managers**
- NHS Commissioner
- Physiotherapist

**Interviews**

The following job titles of those attending illustrate the range of roles performed by those interviewed:

<table>
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<tr>
<th>Roles</th>
<th>Area</th>
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<tr>
<td>1. GP</td>
<td>London</td>
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<tr>
<td>2. GP</td>
<td>West Midlands</td>
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<tr>
<td>3. GP</td>
<td>London</td>
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<tr>
<td>4. Head of Medicines Management (PCT)</td>
<td>West Midlands</td>
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<tr>
<td>5. Community Pharmacist</td>
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<td>6. Community Pharmacist</td>
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<td>7. Community Pharmacist</td>
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<td>8. Practice Nurse</td>
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<td>9. Practice Nurse</td>
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<td>10. Dietitian</td>
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<td>13. Dietitian</td>
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<td>14. Ophthalmologist</td>
<td>North West</td>
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<td>15. Dentist</td>
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<td>16. Obesity Lead</td>
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<td>17. Obesity Lead</td>
<td>Greater Manchester</td>
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<td>18. Diabetologist</td>
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<td>20. Diabetologist</td>
<td>London</td>
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<td>21. Director of Public Health</td>
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<td>22.</td>
<td>Director of Public Health</td>
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<td>23.</td>
<td>Public Health Consultant and HWBB Member</td>
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<td>24.</td>
<td>HWBB Member</td>
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<td>25.</td>
<td>Director of a BME Specific Community Group and Member of HWBB</td>
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<td>26.</td>
<td>Clinical Director of Long Term Conditions</td>
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<td>27.</td>
<td>NHS Health Check Manager</td>
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<td>28.</td>
<td>NHS Health Check Manager</td>
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<td>29.</td>
<td>Senior Commissioning Manager</td>
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<td>30.</td>
<td>PCT Chair</td>
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<td>31.</td>
<td>Senior Commissioning Manager</td>
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Online consultation

We were aware that the number of individual interviews was limited, and that attendance at a discussion group would not be convenient for some of those invited to participate. Consequently we also conducted an online consultation, to which we invited everybody in our sample that was not selected for an interview, and not able to attend a discussion group. This was supplemented by invitations sent to relevant organisations which agreed to forward invitations to appropriate members/contacts.

In total 136 individual invitations were sent via email to those not participating through interviews or discussion groups. Indirect invitations were circulated through the following organisations: British Dietetic Association, Royal College of Nursing, Surya Foundation, Black & Ethnic Minority Diabetes Association, South Asian Health Foundation, and the Aga Khan Health Board.

Profile of respondents: a total of 18 people accessed the online consultation, although the level of response to individual questions varied considerably. As was anticipated, there were more responses to the first few recommendations and fewer responses to recommendations towards the end of the guidance. This is likely to be due to the sheer number of recommendations and to respondent fatigue.

Thirteen of the 18 respondents reported that they were employed by the NHS, with seven describing their job role as ‘specialist diabetic dietitian’, and three as ‘public health consultant’.

Findings from the online consultation are provided for each recommendation, and are located on the last page of findings for each recommendation.

2.4 Data analysis

Interviews and discussion groups were digitally recorded and then transcribed. Analysts worked with the transcriptions to identify important themes in the feedback. These themes were then summarised in an analysis grid to enable cross referencing (or mapping) of substantive points with explanatory variables. Direct quotes from participants were recorded verbatim, where appropriate. Issues were sifted and prioritised by importance and salience from the large volume of data on the grid.

The online consultation was conducted using Survey Monkey, a commercial internet survey tool. The consultation was designed to extend the opportunity to comment on the draft recommendations to a broader audience. The form of the consultation invited text comments only to each recommendation (see appendix for example questions).
3 Responses to the draft recommendations

The flowchart

Begin diabetes risk assessment

- **25–39 years**
  - Limited evidence for validated risk tools in this group
  - Use risk scores with caution

- **40–74 years**
  - Use a validated risk tool for the population being screened
  - Practice risk scores can be used to interrogate general practice electronic records
  - This algorithm defines the top 50% as high risk, the lowest quartile as low risk and the rest as intermediate risk
  - Self-assessment scores should be considered in hard to reach groups

Assign to the appropriate risk category

**LOW RISK**
- Reassess risk at 5 years

**INTERMEDIATE RISK**
- Offer brief advice on:
  - the risks of developing diabetes and the benefits of a healthy lifestyle
  - modifying individual risk factors

**HIGH RISK**
- Proceed to blood testing
- Choose either FPG or HbA1c based on local practice and patient characteristics

Reassess risk at 3 years

**FPG < 5.5 mmol/l or HbA1c < 42 mmol/mol (6.0%)**
- Offer a brief intervention to:
  - communicate the risks of developing diabetes and the benefits of a healthy lifestyle
  - reduce individual risk factors with tailored support services

**FPG 5.5–6.9 mmol/l or HbA1c 42-47 mmol/mol (6.0–6.4%)**
- Offer a quality-assured intensive lifestyle change programme
- Offer an annual assessment of glycaemia

**FPG ≥ 7.0 mmol/l or HbA1c ≥ 48 mmol/mol (6.5%)**
- Carry out a further blood test if asymptomatic according to national guidelines to confirm or reject the presence of diabetes

- **No diabetes**
  - Continue to offer annual assessment of glycaemia, weight or BMI, physical activity and diet

- **Diabetes**
  - Enter diabetes management pathway

- **No diabetes**
  - Enter intensive lifestyle change programme pathway

- **Diabetes**
  - Enter diabetes management pathway

FPG = fasting plasma glucose
HbA1c = glycated haemoglobin
Most participants liked the flowchart, for its concise summary of the process. Some mentioned that an illustration of this nature would be helpful to show to patients, because they could see where they were in the process, even if their English was limited.

"Sometimes it’s easier to have a flowchart because then you can see what’s the next thing to do, and it’s just like with Hepatitis C now, you have got to do lots of things and now they have given us a flowchart, and it’s easy to follow to see what’s the next step."

Practice Nurse

Indeed, many respondents assumed that the flowchart was intended for use with patients – rather than as an aid to reading the recommendations – and there were calls for the production of more graphical representations of risk for use with patients, as part of patient education about diabetes.

Nevertheless, participants also pointed out a number of aspects which they felt warranted clarification. These aspects can be summarised as follows:

- The draft flowchart makes no reference to ‘stages 1 & 2’ referred to in recommendation 1, so the relationship with the components of recommendation 1 was not immediately clear.
- The pathway is clear for those aged 40-74, but less clear for other ages, e.g. it would be helpful to spell out under what circumstances somebody aged 25-39 should be assessed.
- The words "limited evidence" (in the top box for those aged 25-39 and those aged 75+) are likely to be mis-interpreted by some practitioners and commissioners as "don't do anything with this group".
- In the "40-74 years" box, the terminology "this algorithm defines the top 50% as high risk..." caused some confusion, i.e. does this mean that 50% of patients in a typical practice will be high risk?
- Shading could be used to indicate different stages and the different paths to be followed, and then the chart could be reproduced alongside each recommendation to indicate the relevant section of the process. Shading would be preferable to colour, as several respondents reported that they would produce a copy of the flowchart in black and white.

One GP said that the flowchart needs introductory text to make it clear about the criteria for diabetes, for impaired glucose tolerance, and for impaired fasting glycaemia. This related to concerns around the "grey area" of inconsistent findings when multiple tests were used.

"I think the other thing that there’s been a lot of confusion about is if you have an HBA1 greater than 6.5, and if your fasting glucose and two hour glucose are normal is that diabetes? That’s a real grey area, and that’s something that I would really like NICE to provide an answer to."

GP
There were some concerns that assessment by a single blood test might miss some high-risk cases. A number of participants reported currently using more than one test, because no single test was thought to capture all high-risk cases.

One senior clinician had concerns that the flowchart failed to illustrate the gradient of risk. In his area, they were currently using a "thermometer tool" which illustrates risk level in shades of green and red. He felt that this was a superior way of understanding and explaining the level of risk.

It should be noted that, although the flowchart was generally welcomed and thought to be clear, some participants later made comments that revealed that they had not fully understood the flowchart. For example, once the interview began to focus on recommendation 6, it became clear that some participants had not realised that the intensive lifestyle interventions were specifically targeted at those in the highest risk group after the blood test, rather than the broader group of people identified as high-risk by the validated risk tool (i.e. before the blood test).

**Online consultation: responses to the flowchart**

Most respondents reported that they found the flowchart clear but felt that it lacked some important information. Most of the responses called for clearer links to the NHS Health Check programme, and to CVD prevention in general.

"Need to reference NHS Health Check in initial box. Need more linkage with this as a national programme and to update the diabetes filter flow chart (DH) for the H/C programme to support identifying those at high risk and therefore requiring HBA1c and FBG."

"The lack of linkage to CVD risk score seems an omission."

There were specific concerns about the age groups identified in the initial boxes, with comments that younger people (between 18 and 25) should be included.

"Why does it only go down to 25 years, type 2 diabetes in teens is rocketing. At least chart should start where you would expect young people to be dealt with as adults – 18?"

A small number of responses to this item suggested that some respondents had not understood that the flowchart was intended as a guide to the document, and instead saw it as a ‘stand-alone’ section.
Recommendation 1 Risk assessment

Whose health will benefit?
Adults who are at high risk of developing type 2 diabetes.

Who should take action?
Practitioners and managers in primary, secondary and community care, including those in:

- NHS Health Check programmes
- accident and emergency, occupational health and ophthalmology departments
- community pharmacies
- prison health services
- services providing healthcare for people with conditions which increase the risk of type 2 diabetes (such as cardiovascular disease, stroke, polycystic ovary syndrome, a history of gestational diabetes, mental health issues and learning disabilities)
- vascular surgery and renal surgery units.

What action should they take?
Implement a two-stage strategy to: assess the risk of type 2 diabetes using a risk-assessment tool (stage 1 see below); and to confirm by blood test when people have diabetes or are at high risk (stage 2 see below).

(Stage 1) GPs or other primary care health professionals should use a validated risk-assessment tool to identify all adults aged 25 and over on their GP practice register who may be at high risk of type 2 diabetes. The tool should use data routinely available in primary care. Examples include the Cambridge diabetes risk score or the Leicester practice score.

(Stage 1) Make a self-assessment questionnaire available to all non-pregnant adults in the practice aged over 25 years, if the practice risk tool is unavailable, or if carrying out a risk assessment outside general practice. (An example of one of these tools is the Leicester risk-assessment score.) Alternatively, tell people how to access validated online risk-assessment tools, such as the diabetes risk score featured on the Diabetes UK website. (The latter is based on the Leicester risk-assessment score.)

(Stage 1) Do not exclude people from further investigation or intervention on the basis of age. People aged 25 to 39 years of South Asian descent and people aged 75 years and over (from all ethnic groups) should be assessed. They can all reduce their risk, even though they are not currently eligible for the NHS Health Check programme.

(Stage 2) Trained healthcare professionals should carry out blood tests for adults with high risk scores. They should also test all those aged 25 and over of South Asian or Chinese descent whose BMI is greater than 23 kg/m2. The aim is to:

- confirm the risk of progression to type 2 diabetes (a fasting plasma glucose (FPG) of 5.5–6.9 mmol/l or an HbA1c level of 42–47 mmol/mol (6.0–6.4%) indicates high risk)
- diagnose type 2 diabetes by using either FPG, HbA1c or an oral glucose tolerance test (OGTT) according to World Health Organization (WHO) criteria2.

Integrate this two-stage strategy, within the NHS Health Check programme (see the flow diagram ‘Diabetes risk assessment’).
Clarity of recommendation

Most participants found this recommendation to be generally clear and understandable, although there were a number of specific queries.

"It's quite concise, and it is quite clear English, plain English, and practical advice really, about what I could do with different patients in terms of when to test them for diabetes."

Dietitian

GPs/primary care settings are not mentioned specifically in the list of action takers, and this seemed strange to a number of participants, since those settings will be very important to the delivery of this recommendation.

It may be helpful to specify that stages 1 and 2 can be conducted in different settings, and that not all stage 1 providers will be able to deliver stage 2 actions.

The possibility of conducting stages 1 and 2 in different settings was not always immediately clear to all participants, leading to some misunderstandings. For example, one participant thought that the recommendation was suggesting that blood tests could be conducted in outreach/community settings.

As noted in relation to the flowchart, some thought that the pathway for those under 40 and over 74 was not completely clear. The instruction that nobody should be excluded from assessment on the grounds of age was not seen to be consistent with the image portrayed in the flowchart, which seems to focus mainly on those aged 40-74. Similarly, in stage 1, it says all (non-pregnant) over 25, and the next paragraph suggests 25-39-year-olds should be tested only if of South Asian descent.

Some participants were not familiar with the Leicester and Cambridge risk assessment tools, and this lack of familiarity meant that they were unclear about the implications of the recommendation.

One senior public health manager recommended that the information about blood tests should specify whether these would be venous or capillary.

It should be noted that "The NHS Health Check programme" is not a universally acknowledged term.

Relevance and usefulness

There was some disagreement in terms of exactly who this recommendation was most relevant for. At one end of the spectrum of opinion, there was a view that it was relevant for everybody in the NHS, though others argued that some of those specified as action takers were not appropriate, because they would not have the necessary patient data.
"Risk assessment is the responsibility of everyone working in the health care system."

NHS Health Check programme manager

"What happened in (specified locality) with the heart disease risk thing is that they initially tried it mainly happening in general practice and then they also paid a smaller number of people to have it done with their pharmacist...... but the pharmacist couldn’t identify the risk because they haven’t got all their data. So... (what) they found is that the people the pharmacists were doing were much more likely to be fit and well... than the (patients of) GPs who had the data."

GP

To some extent these disagreements may be based on misunderstandings, about the content of the recommended stage 1 tools (i.e. not realising the range of contextual information gathered by the questionnaire), and not realising that stage 1 of the assessment can potentially be conducted by a wider range of providers than stage 2.

Impact on current services, policies and practices, and factors affecting implementation

Many participants were aware of existing risk assessment programmes, including locally enhanced services and the National NHS Health Check programme. The idea of an additional, diabetes specific programme was met with some scepticism, and in one or two cases with hostility, on the grounds of cost effectiveness. These critics strongly favoured a more broadly focused programme of risk assessment (typically, across the major non-communicable diseases). This was thought to be a more joined up and cost-effective approach, not least because of overlap in the target populations.

"the whole problem with this is that it focuses only on diabetes."

Director of Public Health

"We are trying to move away... from it feeling very kind of silo'd... we are looking at CHD, we are looking at bowel cancer, now we are looking at diabetes, because often it is the same people who you are targeting for all of these things."

Obesity Lead

Among those aware of locally enhanced risk assessment services, and/or the NHS Health Check programme, there were questions about how the draft guidance would fit together with these programmes. In particular, there was the question of compatibility with the criteria used to identify those to be risk assessed. There was also the question of how to avoid people being called up multiple times for different programmes.

In the current financial climate there were widespread concerns that it was very difficult to justify funding for prevention measures. Many participants thought that recommendation 1 would have considerable financial implications, and they were sceptical about whether their local NHS would make this a spending priority. This was a view held even by some of those believing that an effective risk assessment programme would save money in the long term.
In the light of these financial restrictions, some participants felt that conducting risk assessments with those aged under 40 would not be considered cost-effective, and would therefore be unlikely to be commissioned.

“there’s a suggestion... that we should be... seeing all of those (25-39-year-olds) is completely impractical, or certainly not cost effective. There’s no cost effectiveness evidence to suggest that that’s going to... produce a result”

Director of Public Health

Interestingly, some participants feared being overwhelmed by the numbers of people that would need to be assessed if the under 40s were included, whilst others believed that it would be difficult to get those younger people to come forward for testing, because of their busy lives and the fact that most do not feel unwell.

One participant suggested that there were some additional indications which should be included, with a recommendation that these patients should be assessed, regardless of age.

"You could just have a list of situations when doctors, nurses or any health professional anyway might want to consider screening for diabetes, you know repeated thrush, repeated infections, it’s all stuff we know, but it bears repeating."

GP

The threshold at which patients should be considered high risk was also the subject of much debate. A number of participants believed that the proposed thresholds were set too low, with the FPG level of 5.5 most often criticised. These critics feared that this threshold would prove unaffordable, due to the very large number of people entering the high risk pathway.

"At 5.5 you're going to get such a lot of the population that I'm not sure that 5.5 is realistic."

PCT Chair

A number of participants strongly recommended that the guidance will only be successfully implemented where it is connected with the primary care Quality and Outcomes Framework.

"I mean the way you got us to do a CHD NHS check was make sure the money follows the work, you know, and there are so many different things are being asked to do, so there’s got to be money behind it."

GP

Another GP had concerns about the capacity to risk score such a large number of their patients, and thought it would only be achievable with enhanced IT systems.

"We've never ever tried to risk score people before. So that would be tricky, what you’d need there is good IT based systems number crunch our data in and spit out the people who are at high risk. If you’re relying on us to sit down and implement that, realistically it’s just not going to happen, we’ve got too many other things to do."

GP
The draft recommendation offers clinicians a choice of fasting or non-fasting blood tests, though some did not realise this was a choice of one or the other. Several participants expressed the view that GPs often tended to have a strong preference for one type of test or another, or the use of more than one test in some circumstances. Some participants said that the evidence base for the recommended blood tests would need to be made very clear if these GPs are to be persuaded to change their ways.

A number of participants believed that the list of action takers was too long. Typically these participants were concerned that there was no clear leadership, and responsibility was spread too thinly across the long list. Some would like to have seen GPs identified as having the primary responsibility.

It is not clear from the draft recommendation whether the Leicester and Cambridge risk assessment tools are free of charge, or would have cost implications. Participants at both frontline primary care and senior public health management levels had concerns about the financial implications of making these tools available and giving them out freely.

One participant welcomed the broad range of providers, which he believed would capture individuals who might not otherwise engage with mainstream primary care providers. Nevertheless, he also warned that there is likely to be a proportion of people dropping out between stages/providers, i.e. being recommended to go for a blood test, but not actually doing so.

Some participants felt uneasy about the prospect of leaving patients to complete this stage 1 risk assessment questionnaires on their own. In contrast, others said that there was a danger that health professionals would think they had fulfilled their responsibilities if they simply gave out these questionnaires, thinking that it was the patient’s responsibility to calculate their score and judge whether they needed to come back to see the health professional.

Whilst some welcomed the fact that patients could complete the stage 1 risk assessment tool on their own, thus alleviating capacity concerns to some extent, it was also pointed out that this would be of less help in certain localities. Prevalence of diabetes (and therefore relevance of this guidance) is highest in areas with a high proportion of Black and Minority Ethnic (BME) patients, and/or a population with poor literacy skills and low levels of Internet access. It was pointed out that the capacity implications of recommendation 1 were considerable, in such areas, where the great majority of the population may well be recommended for a risk assessment.

“I don’t feel that would work in this particular (locality) - It’s a very deprived area.”
Practice Nurse

“We always have an interpreter booked with them, and then you have to book a double appointment or even triple appointment.”
Practice Nurse
A small minority would have preferred NICE to recommend one of the risk assessment tools, rather than suggesting either. This perspective is based on the view that NICE guidance should give clear, unequivocal advice on the best tool available, rather than leaving individual practitioners and managers to make those decisions.

Community Pharmacies were generally keen to be involved in recommendations 1-3, and it was suggested that this should be one of their five contracted healthcare campaigns. They believed that they would make a contribution, because they do see members of the public that GPs do not often see, or do not have sufficient time with. It was suggested that they should particularly target the family members of customers receiving treatment for diabetes.

The participating Ophthalmologist did not think that Ophthalmology departments were well-placed to implement this recommendation, and she did not consider the delivery of risk assessments to be an appropriate use of their time.

**Online consultation responses to recommendation 1**

This recommendation was considered to be clear and easy to understand, and relevant and useful by those who commented on it.

Some questioned the rationale for not including people aged under 25.

“What do we do with under 25s?”

And there were calls for clear links to the NHS Health Check programme.

“40-74 year olds should be part of Health Checks with the same recall as that, and screening tool will not be needed as doing FPG with all for under 40 and over 74 year olds, use screen tool opportunistically – as able to in primary care.”

Some respondents felt the recommendation may not be implemented by providers, while others recognised that it may lead to higher levels of demand for HbA1c testing, and the need for more training of front line staff to carry out the risk assessment.

In terms of factors that might help or hinder implementation, some respondents identified the need to engage with commissioners to ensure the risk assessment is coordinated with the NHS Health Check programme and to ensure that responsibility for risk assessment does not fall solely on primary care service providers.

More sceptical respondents worried that GPs may be reluctant to engage with the recommendation of data checking of the practice records, while others were concerned about the need for more experienced Dietitians and of front line primary care staff in general who could conduct the risk assessment.

In response to the question about possible service and financial constraints affecting this recommendation, several respondents commented that this recommendation did indeed
represent additional work and some felt that GPs in particular would demand more money to implement this recommendation.

“Adding more work and more visits outwith current workload – still think it better we link this to CVD risk assessment.”

“I have a concern if GPs demand more money for implementing this on an already squeezed budget.”
**Recommendation 2 Encouraging people to have a risk assessment**

**Whose health will benefit?**
Adults who are at high risk of developing type 2 diabetes.

**Who should take action?**
Organisations and staff working in partnership to carry out risk assessments for type 2 diabetes. This includes:
- Providers of public health services.
- Staff working for the NHS Health Check programme.
- Health professionals and managers in primary care and community settings, including community pharmacies, dentists, occupational health staff, opticians and prison health services staff.
- Health professionals and managers in secondary care who provide services for people with particular conditions where the risk of type 2 diabetes is high.
- Managers of adult social, residential and community services.
- Local authority leisure services.
- Voluntary not-for-profit and non-government organisations (including faith and community groups, diabetes support groups and charities).

**What action should they take?**
Explain that people who feel healthy can be at risk of developing type 2 diabetes. Explain the implications of being at risk and advise them that this can be reduced by making lifestyle changes.

Tell people how and where they can be assessed. For example, make them aware that they can ask to be assessed at their GP surgery, local pharmacy or, for those aged 40-74 years, by the NHS Health Check programme. Also make them aware that they can use self-assessment or web-based tools or phone apps.

Advise people with type 2 diabetes to encourage family members to have their risk assessed.

Actively seek out and offer risk assessments to people who may not realise they are at high risk (such as those with severe mental health problems, or with a history of cardiovascular disease, gestational diabetes or polycystic ovary syndrome).

Use other local health, community and social care venues to offer risk assessments.

Examples of the health venues include: dental surgeries, NHS walk-in centres and opticians.

Examples of community and social care venues include: workplaces, job centres, local authority leisure service venues, shops, libraries, faith centres, residential and respite care homes and day centres (for older adults and for adults with learning disabilities).

Encourage people who are less likely to attend a conventional health setting to use an alternative venue (see above).

Ensure professionals carrying out risk assessments in non-NHS settings communicate closely with, and receive support from, NHS diabetes risk assessment and prevention services. Aim to ensure continuity of care and to avoid unnecessary duplication of risk assessment.
Clarity of recommendation

Most participants found recommendation 2 to be clear and straightforward.

There was one suggestion that this should come before recommendation 1, in terms of the logical sequence, i.e. encouraging people to have a risk assessment should come before the risk assessment itself.

A small number of participants confused encouragement of risk assessments with provision, thinking that this wider list of agencies would be conducting risk assessments.

One participant requested that the range of relevant "community services" should be spelt out more clearly.

"Adult social care. I know who that is. Adult residential care. I know who that is. Adult community services. What’s that?"

Senior Public Health Manager

Relevance and usefulness

Most participants viewed this recommendation as relevant and useful, often confirming work that they considered to be best practice, but were not always able to undertake.

However, in a small number of cases, participants thought that the advice in recommendation 2 was obvious, and of little value. Most of these participants reported that their organisation was already carrying out this work.

Impact on current services, policies and practices, and factors affecting implementation

A significant proportion of participants found it difficult to talk about recommendation 2 in isolation from recommendation 1, and the process as a whole, as illustrated in the flowchart. This would typically manifest itself by the participant reiterating concerns about cost and capacity, but with no specific reference to the content of recommendation 2. This suggests that, in their minds, encouraging people to have an assessment is very much tied up with the assessment itself.

Those noting the association with the NHS Health Check Programme were very positive about the prospect of integrating this guidance.

"I mean the beauty of the NHS health check programme is that there was a clear vision and there was money behind it and it was devolved in local areas to make it work in whatever way they thought it would work best locally. So if you’re doing the same sort of thing, I mean I would really build on the strength of that. Again I can’t speak nationally, I simply don’t know the answer but locally it’s in a very successful programme."

GP
"I think integrating it into the NHS Health Check (programme) and integrating it into other lifestyle screening, public health messages will help it, (it would hinder implementation)... if it needs to be seen as an isolated programme."

Obesity Lead

The most common concerns around recommendation 2 were in terms of responsibility for coordination, the challenge of including the "hard to reach", and the cost and capacity implications of staff training, staff time and outreach work.

The quite lengthy list of action takers was viewed positively by some participants, particularly in terms of "casting the net widely", to increase the chances of engaging with those not regularly seen by mainstream NHS services. However, this wide range of action takers was also thought to risk duplication of effort and fragmented planning, particularly since the recommendation does not allocate specific tasks to specific action taking agencies. Participants called for clearer guidance on which agency should lead and coordinate, and a number mentioned that this should be the responsibility of the commissioners. (Note that most of those commenting on this recommendation would not have seen recommendation 16, which does address this concern).

Many participants acknowledge that a key challenge would be that of engaging with "hard to reach" groups, among whom it was thought that a very high proportion of the population would be at risk of diabetes. This will need careful planning and imaginative outreach working, and there was a suggestion that implementation would be aided by the inclusion of case studies which illustrated successful approaches to engaging particular groups.

Some participants noted that arranging for NHS staff to work outside the normal settings was not easy, and negotiating access to appropriate community settings was not simple. A number of participants expressed their frustrations on this theme, complaining about outreach work based in libraries, which would have been better located in or outside cheaper supermarkets. The following two quotations sum up the concerns, and the possible solutions around this recommendation.

"Some people who are vulnerable are not going to be using local authority service leisure services. There is this thing around who actually uses services and a lot of vulnerable adults are likely to get missed out."

Public Health Manager, working on mental health issues

"(Engaging with people) outside the usual NHS venues - I thought that was a particular strong point. I really like that... Maybe you could add pubs ... Yes we just did it as a pilot on one locality (and) it was a great way of pulling in those people who are traditionally hard to reach, and then we did a quick health check on them and then they got referred onto the practice if they’d got issues that needed looking at."

Obesity Lead

Perhaps not surprisingly in the current financial climate, cost and capacity issues were prominent amongst the concerns. Even guidance from NICE could not be guaranteed to receive approval by commissioners.
"We are in discussions with our local commissioners about things that NICE have said must be done, based on guidelines, and they’ve just said 'no it’s only a guideline'. .. (Our commissioners are) taking the view point that guidelines are guidelines, and they will pay (only) for the ones they can afford."

Consultant Diabetologist

GP practices clearly have a key role to play in encouraging patients to have a risk assessment, but there were reservations about their capacity, their willingness to prioritise this work, and whether they had the appropriate skills.

"GPs will say they have got too much to do to do this."

Diabetologist

"Motivating people to look after themselves and take responsibility is quite a long and skilled process, I don’t think GPs have that"

Dietitian

The issue of staff training was quite widely acknowledged as an important issue, as it was considered necessary to improve the skills of relevant staff when engaging people on prevention issues. This was particularly important in the context of a risk assessment programme in which many of those being encouraged to have risk assessments would not feel unwell, and would not be ready to consider behaviour change.

The Dentist participating in the fieldwork was particularly keen to emphasise the need to improve staff skills and knowledge in this area. She was very positive about the potential role that Dentists could play, given the conversations that they have with their patients around sugar and gum disease, and believed that Dentists should have been included as action takers in recommendation 1 also. However she did acknowledge that the knowledge of Dentists around diabetes was often limited, and the limitation of recommendation 2 would have significant implications for staff time.

"I think financially (the implications are) huge, because anything that involves having to sit down and actually explain to patients why they need better self care requires somebody's time, and time is expensive. And (requires) training."

Dentist

Our participating Dentist also mentioned that Dental Nurses might be a cost-effective avenue for delivering this recommendation, and that perhaps the wording in the "who should take action?" list should be slightly modified to acknowledge this. (For example, the term "community pharmacies" encompasses those working in this setting, but the term "Dentists" clearly suggests a specific professional role within the dental surgery setting).

Similarly, others questioned whether staff in leisure centres, adult social care, residential and community services and the voluntary sector would have the necessary time and training to implement recommendation 2. If they do take the recommended action, it was thought that they would need close liaison and support from the NHS.
The participating Ophthalmologist was much happier with recommendation 2 than with recommendation 1, thinking that giving Ophthalmology departments responsibility in encouraging people to go elsewhere for risk assessments was an excellent idea.

**Online consultation responses to recommendation 2**

There were few specific comments about the content of this recommendation. The main concerns related to the impact on current services and ensuring implementation. One respondent felt there was need for greater publicity and communication of the benefits both to individuals and in terms of value for money to the health service of early identification of risk factors. Other comments related to the anticipated increase in capacity to implement the recommendation and to implement structured programmes designed to modify behavioural risk factors.

“**Will just make us busier, will need to look at structured education programmes for IGT.**
**Already do weight management programmes and type 2 diabetes Xpert programme- will need to increase capacity.**”

Again, concerns about funding, together with a suggestion to commission specialist posts to help implement this recommendation, were identified as factors that may help or hinder implementation.
**Recommendation 3 Communicating the risks of type 2 diabetes and the benefits of prevention**

**Whose health will benefit?**
Adults who are at high risk of developing type 2 diabetes.

**Who should take action?**
Providers of risk assessments.

**What action should they take?**
Explain to those attending for a type 2 diabetes risk assessment the implications of being at high risk and the consequences of developing the condition.

Explain that the onset of type 2 diabetes can be prevented or delayed by making long-term lifestyle changes. These include increasing the amount of physical activity they do, achieving and maintaining a healthy weight, and adopting a healthy diet.

Advise adults who have a high risk score to contact their GP or practice nurse. They should ask for a blood test to check their risk of developing type 2 diabetes or to see if they have diabetes.

Tell people where they can get advice and support to make long-term lifestyle changes.

Offer referral to a local, evidence-based and quality-assured intensive lifestyle-change programme to those whose blood test confirmed that they are at high risk of progression to type 2 diabetes.

Keep records on everyone who is assessed to ensure appropriate follow-up and continuity of care.

**Clarity of recommendation**

Most participants thought that recommendation 3 was clear, though a very small minority thought it was vague.

There was some confusion in relation to the "who should take action?" list, with some participants thinking that recommendation 3 was consistent with recommendation 2 in terms of action takers, rather than with recommendation 1. For example, participants were thinking that leisure centre staff and voluntary groups would be communicating these messages. This is possibly caused by the fact that communication of the risk of diabetes is required in delivering both recommendations two and three. Elsewhere in this report, it has been suggested that the current recommendation 2 should come before the current recommendation 1. This might help to reduce confusion, since the actions required by providers of risk assessments would then be in the second and third positions.

One participant suggested a flowchart for this recommendation, though perhaps this individual did not realise that this was at least partly covered in the existing flowchart.
Relevance and usefulness

The content of this recommendation was thought to be relevant and useful, though there were some concerns around whether it is realistic for providers of risk assessments to take the main responsibility. This is discussed below, in terms of factors potentially affecting implementation.

Impact on current services, policies and practices, and factors affecting implementation

As noted earlier in this report, some respondents emphasised the need to integrate this work with other the NHS Health Check programme and/or existing local programmes, with which there was considerable overlap. They said that the likelihood of this guidance being implemented would be significantly reduced if it had to stand alone. This view needs to be considered in the context of many participants thinking that it would become more difficult to secure funding for prevention work, in the foreseeable future.

One participant noted that NHS Health Check did not have a pro forma for communicating results (at least, in his area). He was very keen that some form of standard pro-forma should be developed for practitioners to use, when feeding back assessments to patients.

“We did all the NHS checks. Yes we either used to write it down on pieces of paper or we designed our own form to let people know, and write down what goals they had set, but that was so silly compared to if nationally there had been a little pro forma so that people were told, you know, this is your glucose, this is your BMI, your agreed goals are.”

GP

GPs were concerned that this guidance would become another priority for them to deliver, within finite resources, and unless something else could be dropped, they may be unable to do so. They also acknowledged points made by other health professionals, that the staff in GP practices do not always have the appropriate skill set to communicate prevention messages effectively, especially to people who may not feel unwell, and not be ready for behaviour change. Some health professionals went further, suggesting that GPs were often less than effective in even explaining to patients why they had been referred to more specialised services. These points are illustrated in the following quotations.

“I just think if you are asking GPs and practice nurses to do it they are not going to do it very well because they have got other (priorities)... we can’t afford them to do it well. We need maybe expert patients doing it, who come in and run clinics, run self help, peer to peer, because they might have more time and they can come up with help and develop their own self management.”

GP

“The first question that usually (Dietitians) ask is ‘do you know why you’re here’, and probably more than fifty percent of the people would say ‘my GP sent me and I don’t know why I’m here’, so you have to go through the process of helping people to understand why the GP has actually sent them there.”

Dietitian
It should be noted that Dietitians reported that they increasingly struggle to find sufficient time for prevention work.

There was scepticism about whether support services actually exist for people to be referred to. It is not entirely clear whether the following quotation indicates the absence of such services, or lack of knowledge on the part of the GP, but in either case this would seem to present a barrier to implementation.

"I fell about laughing when you said intensive lifestyle change programme....I guess the answer is I don’t believe they exist, I’ve never met one, despite the fact that people have told me they’ve got one in the area."

GP

One of the participating Diabetologists asserted that lifestyle change programmes are more expensive than alternative pharmaceutical treatments. In an era of tighter budgets, Commissioners may well focus on costs when they evaluate public health guidance.

As noted earlier, Community Pharmacists were keen to be involved with implementing this guidance, though this would need relevant training to be provided.

**Online consultation responses to recommendation 3**

The only query about the clarity of the recommendation was in relation to people whose blood test is normal but who have other potential risk factors.

“What do you want the health professional to do with the person at high risk - eg family history over weight but normal GTT? Need to make it clear that if blood test normal does not mean it will stay normal.”

Several respondents commented on the need for more training of specialist diabetic nurses and on the limited provision of current services capable of implementing this recommendation.

“Training for other PCT areas. I am a former diabetes nurse specialist so feel confident talking about diabetes but for most HCP they are confused about it!”

“Commissioners will need to ensure the fund the programme or there'll be no service available for people identified as high risk.”
Recommendation 4 Reassessing risk

Whose health will benefit?
Adults who are at high risk of developing type 2 diabetes.

Who should take action?
Providers of risk assessments.

What action should they take?
Keep an up-to-date register of people’s level of risk. Introduce a recall system to contact and invite people for regular review using the 2-stage strategy (see recommendation 1).

Use clinical judgement to determine how often someone should be reassessed, based on factors such as their age, BMI or relevant illnesses or conditions.

Offer a reassessment at least every 5 years to those who were not found to be at high risk. Use a risk-assessment tool.

Offer a reassessment at least every 3 years to those who were previously identified as being at high risk but for whom a blood test did not confirm high risk (that is, FPG less than 5.5 mmol/l or HBA1c less than 42 mmol/mol [6.0%]).

Offer those confirmed at high risk of developing diabetes (FPG 5.5–6.9 mmol/l or HbA1c 42–47 mmol/mol [6.0–6.4%]) an annual blood test to check FPG or HbA1c levels. Also offer them an annual assessment of their weight or BMI, physical activity and diet.

Encourage people to:
- monitor their BMI, weight or waist circumference
- be aware of how physically active they are (for example, by using a pedometer) and the type and amount of food they eat
- use their judgement about when to seek further advice.

Clarity of recommendation

This recommendation was thought to be clear and understandable by most, though it should be noted that there was considerable uncertainty about the responsibility for collecting patient information across different providers, and responsibility for recall. These issues are discussed below, as factors potentially affecting implementation.

A number of participants initially thought that the recommendations on recall intervals were somewhat inflexible, and they said that these intervals should be decided with reference to contextual factors such as obesity and having diabetes in the immediate family. Once it was pointed out that the recommendation states "use clinical judgement to determine how often somebody should be reassessed" these participants were satisfied that the desired flexibility was available.
Relevance and usefulness

This recommendation was thought to be relevant and useful, notwithstanding a small number of queries around points of detail, such as queries about the evidence for the precise intervals recommended between reassessments, for the different risk levels.

Impact on current services, policies and practices, and factors affecting implementation

Participants in most areas reported having an existing reassessment process, although the initial risk assessment tended to be on a much narrower population base, and the interval between assessment and reassessment was different, sometimes with a higher proportion called in on an annual basis.

As observed with other recommendations, there were calls for this work to be integrated with The NHS Health Check programme and/or other existing local programmes. Integration of this nature was seen to be more efficient, reducing duplication of effort, and acknowledging that there was considerable overlap in the population that would be called up for risk assessment, between CVD and diabetes.

"I think it’s all about how much it’s joined up with the NHS (Health Check) programme... in my mind you run these two risk scores... the people who are at high risk of diabetes and the people who are at high risk of CVD and then do the business. That’s the critical bit to me."

GP

As noted elsewhere in this report, one of the main concerns was around capacity to deliver, given that a large proportion of the population could be processed through this programme, and the threshold for subsequent intervention was regarded by some as being fairly low. One GP compared it to their existing, ad hoc attempts to screen for diabetes, which had largely been restricted to relatives of those already diagnosed with diabetes. In comparison, the future reassessment work arising from this guidance was thought to be considerable. If this guidance is implemented, this GP suggested that more resources would need to be found, or other activities would need to be sacrificed to create the necessary capacity.

"We have just got to find more capacity, or someone’s got to provide more capacity, and if you don’t provide more capacity something else is going to have to drop off."

GP

Another GP believed that a system would need to be developed in which non-GP staff within the practice could deliver the reassessments. This would still have additional resource implications, but could be managed on a cost-effective basis.

"What you need is a GP service that actually delivery can be done by nurses or HCAs in a properly run organisation, it won’t cost a fortune to get it up and running, but you do need it and bearing in mind the add-on costs, we’re going to find more people, we’re going to have more people on our registers, we’re going to have more work to do."

GP
Perhaps the biggest single concern about recommendation 4 related to the need for an underlying administrative infrastructure. This concern relates to the guidance as a whole, but often became clear to participants once recommendation 4 was discussed. (When reading the section below, describing the concerns about this administrative infrastructure, please bear in mind that most of these participants had not seen recommendation 16, which calls on commissioners to develop a comprehensive programme).

With multiple providers conducting assessments, and sometimes involving more than one provider in an individual assessment (stage 1 and stage 2), there is a question over who is responsible for collecting patient information, and ensuring that the appropriate recall protocol is followed. Most participants agreed that the GP practice is best placed to collect patient information, partly because they already have recall systems, and partly because they are among the few organisations not subject to major change in the next few years. Only one (PCT-based) participant suggested that responsibility for information coordination might be placed elsewhere, with the suggestion that the PCT/Clinical Commissioning Group might commission an external agency to perform a "clearing house" function.

"Well, they're going to have to put a special system in place so that when they identify people as low or intermediate risk, they're going to have to flag it so they're called back or reassessed in five years...And then those who are high risk, there's got to be some follow-up to make sure they've completed a (lifestyle change) programme, and also to make sure that they've seen every three years.... I think that's going to be very challenging to do in practice.”

Discussion group

Participants were not at all clear about how GP practices would obtain information on assessments done by other providers. It was thought very unwise to rely on patients to relay information from a provider to their GP practice, since many would forget to do so, lose paperwork etc. If providers were given the responsibility of communicating the information to GP practices, there may well be problems of non-compliance, not least because the provider may not know to which GP practice a patient belongs.

One participant worked in an area of London with a relatively mobile population, and noted that a proportion of patients will change address, and will consequently be difficult to contact for the reassessment invitation.

One participant working regularly with vulnerable groups emphasised the need for close collaborative working between different agencies, in order to ensure that vulnerable people responded to the reassessments invitations.

"(This needs) collaborative work with other people who might be involved in the care of an individual, because some people who are vulnerable, for example, if they are to say they've got a learning disability or they've got a severe mental illness... so we need to really include that within the recommendation, because it's not going to be straightforward.”

Senior Public Health Manager working on mental health issues

In conclusion, most participants agreed that the challenge of collating information across multiple providers, was not easy, but could be achieved.
"It should be possible to design an effective system, but it needs thinking through at the commissioning stage."

PCT Manager and former Community Pharmacist

A small number of participants were concerned that existing IT systems used for simple recall protocols (e.g. annual appointments) would not be able to adapt to the slightly more sophisticated protocol proposed here. We are unable to conclude whether this was a well founded concern, or one based on limited knowledge of the IT systems in place.

As noted elsewhere in this report, linking responsibilities to the Quality and Outcomes Framework was thought to be very beneficial.

"We do the NHS checks programme. what we found is, because they have got to go back to their GP... there was nothing there afterwards, no intervention, they give them some lifestyle advice and then that’s it, and they may not be called back every year... If...this were linked to QOF then I think there is more chance that it will be done."

Discussion group

Online consultation responses to recommendation 4

Respondents felt that this recommendation should be principally the responsibility of GPs. Several commented on the fact that other providers would face difficulties maintaining records and monitoring people over a number of months or years.

“I see this being more a key role for GPs: it’ll be difficult to monitor and track ‘other external providers’.”

“If providers are GPs then just the usual constraints that they face. This should be relatively easy with population manager on their electronic record systems. If there are other external providers then there could be many problems with keeping an up to date register. How will the list be kept - ie electronic, paper? Is it confidential? Do the people they see regularly access the service of the external provider?”

There were also concerns expressed about the potential of loss to follow up of people who move/change GP surgeries over a 3-5 year period.
Recommendation 5 Matching interventions to risk

Whose health will benefit?
Adults who have been risk-assessed.

Who should take action?
- Health professionals and healthcare assistants carrying out the NHS Health Check programme and risk assessments in non-NHS settings.
- Providers of local public health services, in partnership with primary and secondary healthcare teams and all providers of intensive, lifestyle-change programmes.

What action should they take?
Offer brief advice to everyone who has been risk-assessed, including those with a low or intermediate risk. Tell the person what level of risk they face (everyone is at some risk) and how to modify it. Explain the consequences of developing diabetes and how they can benefit from making lifestyle changes. This should include verbal and written information about the benefits of increasing physical activity, adopting a healthy diet and achieving and maintaining a healthy weight. It should also include advice on how to achieve these changes in a way that can be sustained in the long term.

Provide information on local services and facilities that could be used to help improve their lifestyle, for example, markets where they can buy cheap fruit and vegetables or low-cost physical recreation facilities.

For those with a high risk score which has not been confirmed by a blood test (FPG less than 5.5 mmol/l or HbA1c less than 42 mmol/mol [6.0%]), offer a brief intervention to communicate the risks of developing type 2 diabetes and the benefits of lifestyle change. Discuss their individual risk factors and how to reduce them and point them to services that provide tailored support. For example, give them details about walking programmes, slimming clubs or weight management groups that offer advice about a healthy balanced diet and physical activity as well as evidence-based behaviour change techniques to help them lose weight.

Discuss the specific risk factors that people face when a blood test has confirmed that they are at high risk (FPG 5.5–6.9 mmol/l or HbA1c 42–47 mmol/mol [6.0–6.4%]). Offer them a referral to a local, evidence-based, quality-assured intensive lifestyle-change programme. Give them details of where to obtain independent professional advice.

Carry out a second blood test as soon as possible on those at high risk who have no symptoms, but whose first blood test results indicate they may have diabetes. (FPG the same or greater than 7.0 mmol/l or HbA1c the same or greater than 48 mmol/mol [the same or greater than 6.5%]) If diabetes is not confirmed, offer them a referral to a local quality-assured intensive lifestyle-change programme.

For people who prefer not to have a blood test, or who do not use primary care services, offer further information and advice on the benefits of lifestyle change and how to make and sustain such changes. Use clinical judgement, based on the person’s risk score, to decide whether to offer a referral to an intensive lifestyle-change programme.
Clarity of recommendation

A minority of participants did not immediately understand the difference between the criteria for brief intervention and quality assured lifestyle change programme, but this misunderstanding was not widespread. One participant suggested that the use of subheadings within the recommendation text may remove the potential for this confusion.

In general, this recommendation was considered clear and understandable, though a minority of participants noted that it was quite long. This wasn’t a major problem, but we had two comments suggesting that the graphical illustration might be helpful in supplementing the detail.

“It’s quite a long text, which sort of doesn’t flow as text but would flow in a visual way.”
Dietitian

Relevance and usefulness

The great majority of participants thought that this recommendation was relevant and useful and commented that it was reasonably straightforward, because it was broadly in line with existing practice.

The minority who did not think it was particularly relevant to their roles in secondary care settings. For example, the Ophthalmologist thought that recommendation 5 would not be possible to implement in an Ophthalmology department, and thought that this work should be left to primary care.

Impact on current services, policies and practices, and factors affecting implementation

There was a generally positive reception for this recommendation, though it was often noted that it came with quite significant training implications.

“Just sending out the guidance on its own is probably not enough. It needs to be sort of beefed up by having... a training/ education programme.”
Dietitian

As has been noted elsewhere in this report, some participants told us that GPs and primary care staff do not always feel well informed about services available locally, and they are not always skilled in effectively communicating behaviour change and prevention advice. One participant suggested that space should be made within this recommendation for local services and policies to be specified, so that the relevant information was contained in one place.

“Link it to local guidance, local policy, local procedures, around... what’s available in terms of physical activity, what’s available in terms of groups, what’s available in terms of maintaining a healthy weight.”
Dietitian
"A huge amount of services available for people... but just being aware of everything that’s going on in your area, it sort of feels like a challenge."

Dietitian

The major concern about this recommendation was around capacity, both in terms of the workloads of primary care staff and whether appropriate local services would be available, given the current financial climate. A number of participants reported that such services had recently been cut back in their areas, and were now not available at all, or only available for diagnosed diabetics, and not for prevention work. Given the large numbers of the people to be included in this programme, the numbers moving along the pathway into resource intensive services is likely to be considerable. Capacity implications were thought to be significant, particularly in areas with a high proportion of Black and Minority Ethnic residents, and residents in low socio-economic groups.

"the more screening you do the more people you are going to identify. (But) then have you got all these resources in place?"

Dietitian

Some participants anticipated poor patient compliance with interventions, saying that it was difficult enough to achieve behaviour change among those diagnosed with diabetes, and this problem would be worse among people who do not feel unwell, and for whom diabetes is only a potential outcome. It was suggested that lessons should be learned from smoking cessation interventions, with creative methods of engaging patients in the intervention, such as text message reminders.

One reason suggested for potential poor patient compliance was that the general public do not understand the consequences of diabetes, or the connection with lifestyle. Some participants compared it to the early days of smoking cessation work.

"I know the groups I work for... people didn’t seem to understand ... and (in one group) a chap had had his leg cut off and he didn’t realise that was due to his diabetes until they had to chop it off because he didn’t look after his feet."

Community Pharmacist

Another participant reported that many staff in non-clinical services do not understand the serious implications of diabetes, and this basic misperception may hinder effective implementation of the recommendation.

"I must say, I would confirm that the training that I do, to non medical support (staff)... people don’t realise why diabetes is important."

Discussion group

There were some concerns about whether more vulnerable patients, such as those with mental health problems, would be able to access services. (Note that this comment came before recommendation 10 had been discussed).
"If they lack confidence, are they going to be able to access the services?"
Senior Public Health Manager

As mentioned elsewhere in this report, many participants wanted to see this guidance integrated with other prevention measures, particularly around CVD. They pointed out that the people at risk were often the same people across diabetes and CVD, and any opportunity to talk to those at risk should cover smoking, alcohol, diet, exercise and weight management, and should reference all relevant health problems.

In one discussion group it was noted that, for some patients, the nature of their relationship with their GP is not one of debate and discussion, in which the patient has to take responsibility for improving their own health.

"Their Patients get so used to just going in and getting their prescriptions from the GP and coming back out again with the advice ... (They believe) 'no I don’t make the choice, you are the Doctor, you make the choice for me’." Discussion group

One participant thought that this recommendation should tell health professionals to listen carefully to what the patient has to say in response, in order to make sure that they have understood the information and advice they have been given.

**Online consultation responses to recommendation 5**

The recommendation was felt to be costly to implement and would require additional resourcing, as would the funding of ‘lifestyle services’.

In terms of implementation, respondents questioned whether intensive lifestyle programmes would be available locally, and also questioned the commitment of GPs to do what was necessary to implement this recommendation.
### Recommendation 6 Quality-assured intensive lifestyle-change programmes

**Whose health will benefit?**
Adults at high risk of developing type 2 diabetes.

**Who should take action?**
Providers of intensive lifestyle-change programmes.

**What action should they take?**
Provide specially designed, quality-assured intensive lifestyle-change programmes for groups of 10–15 people at high risk of developing type 2 diabetes. The groups should meet at least eight times over a period of 9–18 months and participants should have at least 16 hours of contact time either within a group or on a one-to-one basis (or using a mix of both approaches). One-to-one interventions may be face-to-face, via the telephone or via computer-based, interactive media.

Deliver programmes in a range of settings such as within workplaces, in leisure, community and faith centres, as well as in outpatient and clinic settings. To make them as accessible as possible, run programmes at different times of day, including evenings and weekends.

Intensive lifestyle-change programmes should include:
- Ongoing practical and tailored advice, support and encouragement to help people make long-term lifestyle changes based on established effective behaviour change techniques.
- Raising awareness of the benefits of making changes to achieve and maintain a healthy weight.
- Identifying and finding ways to overcome barriers to being more physically active, achieving and maintaining a healthy weight and adopting a healthier diet.
- Building confidence and self-efficacy by making gradual changes.
- Individually tailored, specific action plans. Participants should start with achievable and sustainable intermediate goals and build over time towards long term lifestyle change.
- The use of self-regulation techniques (goal setting, self monitoring, progress review, relapse management and goal revision) to encourage learning from experience.
- Patient-centred counselling and empathy building techniques.
- Frequent contact with participants.
- Delivery by health professionals and practitioners with relevant knowledge and skills who have received externally accredited training, for example primary care professionals or public health advisers.

Programme components should be delivered in a logical progression such as: communicating risk and the potential benefit of lifestyle changes, motivating people to change, then action planning and then, self-monitoring and self-regulation.

Encourage participants to involve a family member, friend or carer (if possible) who can offer emotional or practical support and help them to plan the necessary changes. For example, they may be able to join in with activities, make changes to the family’s diet or help to free up the participant’s time for preventive activities.

Offer referral to, or seek advice from, people with specialist training where necessary. For example, refer someone to a dietitian for assessment and specialist dietary advice if required.

Offer more intensive support at the start of the programme by delivering core sessions frequently (for example, weekly or fortnightly). Reduce the frequency of sessions over time.
to encourage more independent lifestyle management.

Allow time between sessions for participants to make gradual changes to their lifestyle – and to reflect on and learn from their experiences. Also allow time during sessions for them to share this learning with the group.

Programme leaders should review participants at least once a year to help reinforce their diet and physical activity goals and to check their risk factors. The review could also provide an opportunity to help people ‘restart’ if lifestyle changes have not been maintained.

Offer follow-up sessions at regular intervals (for example, every 3 months) for 2 years following the initial intervention period, or longer if individuals require more support. The aim is to reinforce the behaviour changes being advocated and to provide support in case of relapse. Larger group sizes may be feasible for these maintenance sessions.

This was the most intensively discussed recommendation in the draft guidance. It is the longest recommendation, featuring many points of interest to our participants. It should be noted that the large numbers of comments received about recommendation 6 reflect its length and content.

**Clarity of recommendation**

Most participants thought that this recommendation was clear and understandable, though we did receive a number of queries about specific elements.

It was widely recognised that this recommendation was calling for a variety of delivery modes to be made available, but not all participants recognised that this was to ensure appropriate provision for different groups, with different needs and preferences. Consequently, some of the feedback obtained tended to focus on the inappropriateness of specific delivery modes for specific groups - for example, the opinion that Asian women are unlikely to feel comfortable in mixed sex group sessions.

Among voluntary sector organisations, there was a lack of familiarity with the term "Quality Assured". This is discussed further in the section on impact on current policies and factors influencing implementation.

"Can I ask what that means? What is a quality-assured intensive lifestyle change programme?"

Discussion group

As described below, many participants were concerned that it would be difficult to justify funding for the implementation of this recommendation. Some participants therefore wanted the recommendation to be clearer in asserting that it is based on strong evidence of effectiveness.
In one discussion group there was debate around whether quality assured services would be able to signpost people to non-quality assured services (e.g. referral to a walking group). The group agreed that “this is a bit of a grey area”, which needs to be clarified.

Participants were less familiar with telephone and computer based modes of delivery, and it may be necessary to provide more detail on how these should be operationalised.

“I think all these statements need to be kind of qualified a bit more …. so is there a structure of how the information could be provided over the telephone? And when they say computer based, say what exactly they mean.”

Diabetologist

For the computer-based/interactive media delivery mode, a number of participants asked whether websites and associated materials would need to be developed in each local area, or whether these could be provided nationally. It was pointed out that online provision should be designed for different cultural and linguistic groups, in order to convey messages appropriately in terms of dietary advice and health beliefs. This is likely to be very costly at a local level.

**Relevance and usefulness**

The great majority of participants saw this recommendation as being relevant and useful. A very small minority did not consider it particularly relevant to their own specialised roles.

A very common view was that it should be applied across a wider range of diseases for which lifestyle risk factors are important. This would better reflect co-morbidity in the target population, and be more cost-effective for Commissioners.

"I don’t just have a diabetes hat on. We’ve got all these patients coming through at risk of all these chronic diseases, the messages are the same.... So we should have lifestyle clinics."

Dentist

Most participants welcomed this recommendation. It was seen as improving cost effectiveness by promoting evidence-based practice and consistency in the messages conveyed and the means of delivery. One particularly strong supporter of the recommendation illustrated its relevance with the quotation below.

"I think it would be cheaper if we had a single, quality assured message because we’d all sing to the same hymn sheet. At the moment every discipline is busy creating its own – I cannot tell you how many committees I’ve sat on over the years and I come out sometimes and I think we all end up back at the same point. Why? Why isn’t there a central message?"

Dentist

A number of participants welcomed the recommendation but believed there would be a need to adapt the detail to maximise the relevance for specific localities.
"(I will take this and ask) What has it not covered for us? Then we will write our own guidelines based on that, but then we can tick box and say actually you know we have referred to NICE and have covered their targets. So you know and basically encourage communities to develop their own protocols based on NICE recommendations."

Diabetologist

"And is it going to be the same across the country? Because obviously different localities all have different needs. And so what’s quality-assured in say, you know, Kent, will be completely different from (what’s relevant) in Manchester."

Discussion group

One discussion group was attended by an official from a weight management self-help group which received no public funding. The representative from this organisation believed that the guidance was interesting, but was not directly relevant to them. They would not be able to signpost their members to accredited services, since their policy is to avoid endorsing other services.

Impact on current services, policies and practices, and factors affecting implementation

Many participants liked this recommendation as it was seen as promoting evidence-based practice.

"Because it is specific, it gives good details and good advice for the interventions, it is comprehensive, it looks at delivering in a range of settings."

Ophthalmologist

Nevertheless many participants had clear reservations about the likelihood of securing funding, particularly in the current financial climate.

One clear strand of feedback on recommendation 6 was that it was too narrowly focused. One aspect of this opinion asserted that intensive lifestyle-change programmes should be available to a wider group of people, particularly those who were obese or who had first-degree relatives diagnosed with diabetes, whether or not they were identified as high risk by the blood test. It was also frequently argued that those at risk from type 2 diabetes were often the same people at risk from other non-communicable diseases, and that the guidance should address the full range.

"So, because there are lots of components in here that would be similar for both (diabetes and CVD)... do we need to separate all of the 12-week programme? Or do we say 8 weeks of that programme should be the same and then specialist ones just for the last couple of sessions...because their risk factors are lifestyle risk factors, they’re all the same".

"We have done some work with our GP registers ... 75% of them had co-morbidities."

Discussion group

Another common reservation was based on the difficulty of engaging patients who are "at risk" but not currently unwell. Although some participants considered this recommendation to be in line with their current practice, many saw it as expensive (especially in the context
of the wider guidance), because it would significantly increase the number of people referred to resource intensive services, for which the take-up would be poor. Some participants thought that patients should only be referred to lifestyle-change programmes when they had also met criteria on readiness to change.

"It’s absolute pie in the sky; I’ve rarely read such optimistic nonsense in all my time ... every time we set up some kind of group education programme the take up is minimal, and that’s putting it politely. Because people are busy and they’ve got things to do and what you’re basically asking them to do is change their life. Your weight and your exercise pattern is a product of how you live your whole existence and you have to be incredibly motivated to decide one day that you’re going to change that."

GP

Among these sceptics, recommendation 6 was often seen as too prescriptive. Essentially, they thought that it would make lifestyle-change programmes more expensive, without necessarily improving take-up or outcomes. Some pointed out that even local Desmond programmes were not delivered as comprehensively as required by the recommendation, and that services for those at risk were not likely to be better funded than those for diagnosed diabetics.

"So I think I would sort of question the prescriptive nature laid down here and also the ability of local health providers, to basically get people engaged... we’ve struggled to get five people, let alone 10 to 15 for those who are at risk of developing..... I think it needs to be sort of smaller, shorter, more opportunistic, small groups... but to get somebody for 16 hours is not going to happen."

Dietitian

The commitment to 16 hours of provision was seen as a problem not only from a funding perspective, but as an unrealistic expectation in terms of the commitment required from patients. The views expressed below illustrate the opinions of many participants who were supportive of the recommendation in principle, but concerned that the input and funding implications were unrealistically ambitious.

"You’d end up with groups that weren’t necessarily full, just because of the constraints of people getting there, and so would be more expensive as a unit cost. And so I don’t think that they would be prioritised over other things given the cuts..... So I think it would only work if there could be cheaper versions of getting something across...So like the online programmes."

Obesity lead

"We should be moving into diabetes prevention as well (as treatment), but this is proving really tricky because there’s just no money – that’s the bottom line....I think this document is wonderful but the cynical part of me says in this day and age, it’s unlikely that this is going to be implemented as it stands."

Dietitian
The difficulty of securing funding for prevention work was said to be compounded by a tendency on the part of related services to focus their scope narrowly in response to funding becoming tighter.

"The (diabetes) service has expanded (but) my manager thinks the prevention of type 2 diabetes shouldn’t be our role...she said we are not funded to see people before they get diabetes."

Discussion group

Most of the concerns about funding were based on the current financial situation, but for a minority of participants there were also concerns about the implications of the change from Primary Care Trusts to Clinical Commissioning Groups, with the latter being thought less likely to prioritise prevention work. The following conversation between two discussion group participants illustrates the uncertainty, and the pessimism.

"(Participant 1) I don’t think they’re developed enough yet..."
"(Participant 2) And when they do start looking at it, they’ll be looking at their diabetes pathway and not the diabetes prevention."

Discussion group

Among the voluntary sector/community groups participating, some were worried about the implications of achieving quality assured accreditation. Opinions tended to be grouped around three positions. Some had experience of quality assurance and found it to be expensive and time-consuming; others understood and supported the rationale behind the recommendation of quality assurance, in terms of more consistent delivery and evidence-based information; a third group were simply unfamiliar with quality assurance and its financial and administrative implications. The following quotations illustrate these positions.

"We have specialist patient programmes .... which is self management for long term conditions and with those they have got a quality marker that’s met towards those .... not many people are taking it on board .... The cost of actually going through the quality marker for smaller community groups and organisations is too costly."

Discussion group

"You (should) be able to provide evidence that your approach worked for a certain number of people and worked in a way that’s cost-effective. I think that’s reasonable, otherwise anybody can just sort of say, well, here’s a funding opportunity."

Discussion group

"Something that you might want to put in here, as an appendix - what are the criteria.. Is that something that all the players will know? As a charity, we may say, actually, we’re in a very good position to provide that for (our) community, but I’d have no idea what the requirements were."

Discussion group

It should also be noted that some providers were perhaps over-confident in their ability to achieve quality assurance accreditation. This position was based on lack of familiarity with
quality assurance procedures. For example, some of these participants had a strong belief that their own services were high-quality and complied with many elements of recommendation 6 already, but perhaps did not appreciate the ongoing administrative procedures necessary to achieve accredited status.

One participant pointed out that the guidance does not recommend appropriate action for those who decline (or do not fully comply with) the lifestyle-change intervention.

"There is no mention of any screening for readiness (to change). What would be the mechanism for people who refused intervention? Would they feed back in five years or would they get a fast track, as it were?"

Discussion group

Many participants realised that this recommendation would have major training implications, and some believed that training should be referenced directly within this recommendation. As noted elsewhere in this report, participants often commented on the fact that many health professionals did not have the skills or time for lifestyle-change work, and this particular target population is seen as very challenging, since they are not currently unwell, and do not necessarily recognise the need to change.

The recommendation does specify that there should be a variety of programme delivery modes "to make them as accessible as possible", and this was welcomed by some, but many participants did not seem to understand the purpose of this statement. Consequently there were numerous mentions of the need to design services to fit in with people's lives, in terms of timing, location, cultural appropriateness, language and so on.

Asian women were mentioned as a group for whom more support might be needed, particularly because of cultural expectations around their role. Some suggested that part of the solution would need to be broader community engagement to influence attitudes, and thereby make it easier for Asian women to attempt lifestyle-change.

"I take it that would also take into account sort of any particular cultural needs... you might need more support because of their domestic situations... I'm thinking of some of the responsibilities and the problems for some of the Asian women in their community."

Discussion group

In line with the point above about the challenges facing Asian women, some participants said that a social marketing campaign would be needed, to raise awareness of vulnerability to, and consequences of diabetes, which are not well understood in the general population. Those calling for a social marketing campaign believed that it would improve both attendance at sessions, and compliance with lifestyle-change (and thus health outcomes). Please note that not all fieldwork participants would have been familiar with NICE guidance on "Preventing type 2 diabetes - population and community interventions", which addresses the need to convey such messages at the population and community level.
A number of participants strongly welcomed the recommendation to involve family members, as this was seen as making success more likely for the individual, and helping to educate the wider family.

A small number of participants suggested that the recommendation should specify the role of Commissioners in taking the lead in ensuring that this is implemented. This includes commissioning only quality assured services, and ensuring that services are reviewed and evaluated for the purposes of service improvement. Please note that most of those making these comments had not seen recommendations 16 and 17.

**Online consultation responses to recommendation 6**

Respondents found this recommendation clear, but one questioned whether the lifestyle programmes needed to be diabetes specific.

“I don’t think this has to be diabetes specific prevention it can be covered more effectively by referral to key lifestyle services available for everyone.”

Other concerns related to the costs of implementation and to the evidence of effectiveness of such programmes and concerns about the lack of funding and the limited availability of providers.

“It is great but will be resource intensive and potentially costly.”

“What evidence is there for such programmes? Are any actually in existence? Where would the groups be held? Where will the money come from to fund the employment of people delivering the groups, or to fund on-going costs such as course materials and resources?”
Recommendation 7 Dietary advice

Whose health will benefit?
Adults at high risk of developing type 2 diabetes.

Who should take action?
- Providers of intensive lifestyle-change programmes.
- Primary care health teams.

What action should they take?
Encourage and support people at high risk of diabetes to eat a healthy balanced diet. Provide information on the types and amounts of food that can reduce the risk. For example, explain that reducing fat intake (particularly saturated fat intake) and increasing dietary fibre intake can help reduce the chances of developing diabetes.

Help people to assess their current diet and identify where and how changes can be made to make it healthier, taking into account their individual needs, preferences and circumstances. This should include:

- Increasing their consumption of foods that are high in fibre such as wholegrain bread and cereals, beans and lentils, vegetables and fruit.
- Reducing their consumption of foods that are high fat and, in particular, saturated fat. Examples include: butter, some margarines, ghee, coconut oil, cream, full-fat milk and dairy products; pastries, samosas, cakes and biscuits; fatty meat and processed meat products (such as sausages and burgers); and fried foods (such as poppadum, papad, bombay mix, chips and crisps).
- Encouraging them to choose foods that are lower in fat and saturated fat. For example, by replacing products that are high in saturated fat (such as butter or ghee) with versions made with vegetable oils that are high in unsaturated fat, or by using low-fat spreads; choosing skimmed or semi-skimmed milk and low-fat yoghurts; fish and lean meats; and grilled or baked foods instead of fried or deep-fried foods.
- Suggesting fruit or unsalted nuts instead of biscuits or crisps as snacks.

Clarity of recommendation
No participants reported any confusion with this recommendation.

Relevance and usefulness
This was seen as a very relevant recommendation, with many participants stating that it was in line with their current practice.

There is a view that the public are very confused by what they perceive as conflicting dietary advice, and it is therefore very useful to have a single, authoritative reference point provided by NICE, stating the key messages.

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2 Recommendations 7-9 were not a major focus for this fieldwork, since they are repeated from other NICE guidance.
Impact on current services, policies and practices, and factors affecting implementation

As noted above, this was seen to be in line with current practice by most of those providing feedback.

A number of participants were keen to emphasise that this recommendation needs tailoring at the individual and community levels, so that the practical advice being given is culturally appropriate. This requires a good understanding of local communities and the provision of appropriate supporting information.

Conveying this type of information is considered to be a very skilled task, and the recommendation needs to be backed up with relevant training, in order to be implemented effectively. Dietitians were concerned that staffing levels in their specialism were currently too low to enable this recommendation to be properly implemented.

Some participants were not sure that adequate supporting information, such as leaflets with dietary advice, was available. They questioned whether these were produced nationally, and questioned whether funding would be made available to ensure effective dissemination.

Our participating Dentist was concerned that standard dietary advice sometimes conflicted with good advice about dental health. She would like the recommendation to address three specific concerns; firstly to warn that blended fruit (e.g. fruit juice) can be harmful to dental health, particularly among young children; secondly to have greater emphasis on vegetables and less on fruit; thirdly to say that a small amount of cheese at the end of a meal can have a beneficial effect by reducing sugar in the mouth.

Online consultation responses to recommendation 7

There were few comments on this recommendation. One respondent felt that it was ‘all the usual stuff.’ The only concerns raised in relation to this recommendation related to an anxiety about unqualified/untrained staff providing misleading or incorrect advice, and the need for ethnic-specific advice for minority groups.

“Financial cost of suitably qualified staff. Ill-qualified staff delivering misleading or incorrect dietary information. Dietitians should play a key role in helping to train other staff such as practice nurses etc. As it would be impossible with the current restraints on services for a Dietitian to see every patient identified.”

“Lack of ethno-centricity for specific groups.”
**Recommendation 8 Physical activity advice**

Whose health will benefit?
Adults at high risk of developing type 2 diabetes.

Who should take action?
- Providers of intensive lifestyle-change programmes.
- Primary care health teams.

What action should they take?
Provide information on the benefits of physical activity and the problems associated with a sedentary lifestyle. Explain that the government recommends a minimum of 150 minutes of moderate-to-vigorous intensity per week. Also explain that some people may need to do more, for example, to assist or maintain weight loss.

Help people to identify which of their activities are ‘moderate-to-vigorous’ and the extent to which they are meeting the national minimum recommendation. Use a validated tool such as the Department of Health’s general practitioner physical activity questionnaire or the international physical activity questionnaire (IPAQ). Alternatively, encourage them to complete a physical activity diary or use a pedometer.

Help people to find ways to gradually increase their physical activity on a sustained basis, taking into account their individual needs, circumstances and preferences. This can be achieved by spending more time being active each day, or by choosing more vigorous activities (for example, brisk, rather than slow, walking).

Explain that it is important not to be sedentary for long periods where possible. Encourage people to reduce the length of time spent sitting at a computer or watching TV. In addition, encourage them to be more active during work breaks, for example, by going for a walk at lunchtime.

Encourage people to choose activities that they enjoy or that are useful in their daily lives. For example, they may choose to undertake specific activities such as walking, cycling, swimming, gardening, dancing or aerobics. Or they could build physical activity into their daily life – for example, by walking or cycling instead of using a car for short journeys and by taking the stairs instead of the lift.

Encourage people to set short and long-term goals, for example on how far they walk or cycle, or the number or length of activities undertaken every week.

Encourage them to keep a record of their activity and to record the things that make it easier or harder. Help them to find other ways to identify and overcome any barriers to physical activity.

Consider referring people who want to engage in structured or supervised exercise to an exercise referral scheme or supervised exercise sessions as part of an intensive lifestyle-change programme.

Provide information on local opportunities for physical activity.

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3 Recommendations 7-9 were not a major focus for this fieldwork, since they are repeated from other NICE guidance.
Clarity of recommendation

No participants reported any confusion with this recommendation. One participant suggested that the recommendation would be better presented with less text and with the aid of a flow diagram.

Relevance and usefulness

This was generally seen as a relevant and useful recommendation. One commissioner mentioned that it was helpful to have this recommendation in order that it could be referenced in commissioning documents.

Impact on current services, policies and practices, and factors affecting implementation

Relatively few participants commented on this recommendation, but where mentioned at all, it was thought to be in line with current practice.

A number of participants said that many of their clients had extremely sedentary lifestyles, and much of this recommendation was thought to be too ambitious for those individuals. The target for them was simply to reduce sedentary time, with very basic activity, well below the moderate-to-vigorous level envisaged in the recommendation.

Several participants called for a social marketing campaign to support this recommendation. It was thought that this campaign should convey the message in very simple language, and have an emphasis on building moderate physical activity into everyday life, rather than gym attendance and more vigorous activity.

Several participants reported that relevant local authority services in their area were being cut back, thereby reducing the range of services that at risk people could use.

Some participants were concerned that implementation of this recommendation would have significant costs, in terms of training, information materials and social marketing. Another participant commented that reduced prices would need to be available in order for relevant social groups to access physical activity services.

One participant pointed out that people with learning disabilities found it difficult to access physical activity services, as they were not used to engaging with mainstream services.
Online consultation responses to recommendation 8

This recommendation was felt to be clear and easy to understand. There were no comments on the content of the recommendation, and the only concerns identified in relation to implementation related to fears that there would be inadequate funding and resourcing.
### Recommendation 9 Weight management advice

**Whose health will benefit?**  
Adults at high risk of developing type 2 diabetes with a BMI of 25 kg/m² or more (23 kg/m² or more if South Asian or Chinese).

**Who should take action?**  
- Providers of intensive lifestyle-change programmes.
- Primary care health teams.

**What action should they take?**  
Advise and encourage overweight and obese people to reduce their weight and sustain this weight loss, using evidence-based behaviour change techniques. Explain that losing 5–10% of their weight is a realistic target that would have significant health benefits. This includes reducing their risk of diabetes.

Encourage overweight and obese people to lose enough weight to achieve a BMI within the healthy range (between 24.9 and 18.5 kg/m², or 22.9 to 18.5 kg/m² if they are of South Asian or Chinese descent). Motivate and support them to achieve this weight loss and then maintain it (as this may be difficult for some people).

Encourage people to check their weight and waist measurement periodically or, as a simple alternative, check the fit of their clothes.

Health professionals should continue to monitor, support and care for those with a BMI of 30 kg/m² or more (27.5 kg/m² or more if South Asian or Chinese) who join weight management groups and slimming clubs.

Offer those with a BMI of 30 kg/m² or more (27.5 kg/m² or more if South Asian or Chinese) a structured **weight-loss programme**. Or, if more appropriate, offer them a referral to a dietitian or an appropriately trained health professional. They should provide a personal assessment and advice about diet, physical activity and behaviour change strategies.

Provide people who are not yet ready to start on a weight-loss and intensive lifestyle programme with information about where they can get support when they are ready.

Also see ‘Achieving and maintaining a healthy weight’ in ‘Preventing type 2 diabetes: population and community interventions’. NICE public health guidance.

### Clarity of recommendation

One participant suggested that the recommendation would be better presented with less text and with the aid of a flow diagram. This was the same participant as suggested a flow diagram for recommendation 8.

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4 Recommendations 7-9 were not a major focus for this fieldwork, since they are repeated from other NICE guidance.
Two participants drew attention to what they regarded as a contradiction in the recommendation. This relates to the point at which it says that 5-10% weight loss is a realistic target with significant health benefits, but subsequently states that the point is to encourage overweight and obese people to lose enough weight to achieve a BMI within the healthy range. Clearly, for many obese people, losing 5% is not going to achieve a BMI within the healthy range.

One Dietitian asked for a clear explanation of what was meant by a "structured weight loss programme".

**Relevance and usefulness**

This was regarded as a relevant and useful recommendation.

**Impact on current services, policies and practices, and factors affecting implementation**

Only a relatively small number of participants discussed this recommendation in any detail, but they did provide a number of interesting comments.

Some had concerns over the capacity of local services to deliver this recommendation. This was partly about staffing levels, partly about training, and partly about GP knowledge of appropriate services. There was a suggestion that online information would be a good way to offer weight management support, in the absence of sufficient service capacity.

A number of participants drew attention to the training needs around this recommendation. It is a subject on which it is difficult to engage people, and staff delivering behaviour change advice need to communicate with empathy and understand how to motivate people, as well as having cultural awareness of the communities they serve.

Two participants remarked that the ambition of achieving a BMI within the healthy range was not realistic for many obese patients.

One participant believed that the recommendation should emphasise the need to lose weight over time, and should discourage people from attempting to lose weight very quickly.

One participant said that the recommendation should make reference to services being culturally appropriate for the communities that they serve.

Another participant asked for the recommendation to make clear the reasoning behind the importance given to waist measurement.

One participant was concerned that the recommendation text did not address the subject of patients with complex needs. It was suggested that the recommendation should say that clinical judgement should be used in directing these patients to specialist services.
Online consultation responses to recommendation 9

This recommendation was questioned by one respondent who felt that the general adult and child obesity pathways were appropriate for those at high risk of diabetes, and that there was no need for a bespoke approach.

Another respondent questioned the detail of the recommendation and suggested that a more moderate requirement may suffice.

“‘Encourage overweight and obese people to lose enough weight to achieve a BMI within the healthy range (between 24.9 and 18.5 kg/m2, or 22.9 to 18.5 kg/m2 if they are of South Asian or Chinese descent). Motivate and support them to achieve this weight loss and then maintain it (as this may be difficult for some people)’. This is (over the top) - the number of people who can go from BMI 31 back to 24 is vanishingly low, and so this is unrealistic for many”
**Recommendation 10 Diabetes prevention programmes for black, minority ethnic and vulnerable groups**

**Whose health will benefit?**
- Adults over 25 years in some black and minority ethnic groups.
- Adults with severe mental health problems who are at high risk.
- Adults at high risk of developing type 2 diabetes who live in institutional settings such as hostels, nursing and residential homes, prisons and remand centres.
- Adults in mobile populations who are at high risk, such as travellers and refugees.

**Who should take action?**
- Community mental health teams and managers and staff of psychiatry services and mental health units.
- Hostel, nursing and residential care home, day centre and luncheon club managers and staff.
- People who provide meals or physical activities for individuals in institutional settings who are at high risk of diabetes.
- Prison governors and officers.
- Providers of intensive lifestyle-change programmes.

**What action should they take?**

Publicise up-to-date information in a variety of formats about local opportunities for risk assessment and the benefits of preventing (or delaying the onset of) diabetes. This should be tailored for different groups and communities. For example, offer translation services and information in languages used locally.

Offer to refer people from vulnerable groups to risk-assessment services and quality-assured intensive lifestyle-change programmes within the community. Or, where necessary, provide them in convenient and familiar local venues such as a residential care setting. (See also recommendations 1 to 9 for advice on risk assessment and intensive lifestyle-change programmes.)

Recognise and address (where possible) issues which mean someone gives their health a low priority.

Offer longer appointment times or outreach services to discuss the options following a risk assessment and blood test.

Involv[e the target community (including community leaders) in planning the design and delivery of intensive lifestyle-change programmes. Tailor the programme to ensure it is sensitive and flexible to the needs, ability, cultural or religious norms of the group. For example, offer practical and experiential learning opportunities, particularly for those who have difficulties with communication or literacy or whose first language is not English.

Provide ongoing support, including social support, through group work and engagement with the wider community.

Ensure programmes are delivered by sensitive, well trained and dedicated educators who are also trained to work with vulnerable groups.

Offer mobile populations, such as travellers and refugees, referral to prevention initiatives in the area where they are moving to. Or use electronic communications and support (for example, DVDs, text messages or email, as appropriate) to deliver programmes or provide ongoing support.
**Clarity of recommendation**

This was generally considered a clear recommendation, though a minority did ask for more specificity in terms of which Black and Minority Ethnic (BME) communities should be considered under this recommendation.

"Are we talking about Asian communities, are we talking about Japanese communities, you know, Bangladeshi communities? What are we talking about here?"

Dentist

**Relevance and usefulness**

This was generally seen as relevant and useful recommendation.

The great majority of participants were pleased to see special attention drawn to the specific needs of these diverse communities, since it is recognised that they are potentially at risk of marginalisation.

"(This recommendation) highlights the fact that in all (areas), there are going to be ... populations that the local healthcare communities should not neglect....they should actively pursue in terms of.... monitoring and assessment and screening"

Dietitian

However, some participants were less happy about combining BME communities and vulnerable groups into one recommendation. Some of these participants thought that BME communities and vulnerable groups should each have a dedicated recommendation, but a few suggested focusing recommendation 10 on vulnerable groups, and amending other recommendations (especially recommendation 6) to specify the need for cultural appropriateness.

The view was expressed by a number of participants that recommendation 10 is currently more relevant to the miscellaneous vulnerable groups, than for BME communities.

"I think we need this one specially. I think it’s very strong (but) my one concern with this one was lumping together what are kind of quite disparate groups ...... It feels a little clumsy"

Discussion group

One participant was concerned that a slight misreading of the "whose health will benefit?" and "who should take action?" sections might lead the reader to think that the recommendation is suggesting that the BME population should be engaged through prisons and mental health institutions.

**Impact on current services, policies and practices, and factors affecting implementation**

A small number of participants drew attention to the potential for duplication of effort, given the diverse list of action takers, without any specification of coordination.
Nevertheless all of the listed action takers should have responsibility for raising awareness around risk identification.

"Well it’s all this sort of including everybody. You don’t really want the hostel and the mental health team and the prison governor... (doing) their glucose... normally the GP should offer for the people with (serious mental illness), their glucose and cholesterol annually unless some other arrangements are made locally... to avoid duplication"

As noted in the point above, this participating GP asserted that it was existing policy for people with serious mental illness to be tested annually for glucose and cholesterol levels. It is not clear whether this is a local arrangement, or more widespread.

Communication across the action takers is essential if recommendation 10 is to be implemented effectively. One participating GP emphasised that this communication needs to be cooperative and respectful.

"I think it’s just really important that mental health teams communicate with us if they want us to do blood tests... Whereas if someone just sends you (an instruction) you just feel like you are just a little house officer of secondary care. It puts your backs up as a GP, but if you know that you have all agreed that you are going to do it....then its fine"

Given the importance of communication and coordination for this recommendation, it is relevant to note the point made by one participant in emphasising the importance of clinical networks to build consensus and promote evidence-based practice in a local area.

"So, without the diabetes clinical network, you don’t get that overall sort of buy-in and input from GPs, from secondary care, from the local authority et cetera"

There was strong agreement among many participants about the need to work with community leaders, in order to access minority communities.

"It's something we need to do more of, and I think again there’s opportunities working with our local practices and local community leaders, and looking at how we can develop these programmes openly"

However, this opinion was not unanimous, and at least one participant was sceptical about the motives and abilities of "community leaders" in terms of helping to deliver health programmes.

"I think a lot of people put a lot of faith in faith leaders and... they’re not usually in a position of being able to deliver".
One participant thought that the recommendation needs to say more about understanding and addressing the barriers faced by many people when trying to access the relevant services.

"The other issue for me, which is implicit, but I think needs to be made explicit is... what are the factors that actually stop people getting the services.... there’s a lot here about referring them to this, that and the other service but... it’s not just BME people... there are people who are on welfare benefits, they can’t afford to go. It may well be that they have childcare responsibilities, or that they’re a carer... (services need to) specifically ask the patients."

Community Project Manager and Member of Health and Well-Being Board

In line with other recommendations, this recommendation did raise concerns about service capacity. Some remarked that it was a resource intensive recommendation, needing coordination across diverse services, and many specialist skills, interpreters, longer appointments, culturally/linguistically specific literature, and community engagement, at a time when funding is becoming more difficult to secure.

"Well it would depend on you know all the services to back this up like Dietitians, self management groups, expert patient groups and they need to be funded.... in the neighbouring PCT they have just cut them off... So you know all these extra patients... where are they going to go?"

GP

Service capacity implications were thought to be particularly significant in localities with high BME populations, and highly disadvantaged populations. In these communities, half or more of the adult population may be covered by recommendation 10.

Some believed (as with other recommendations) that the likelihood of funding would be increased if it included other non-communicable diseases, in addition to diabetes.

The need to provide services in community languages raises some practical problems. For one-to-one provision, longer appointment times are needed, and the same is true for group sessions, unless people with specific language skills (as well as relevant behaviour change skills) are available. The following quotation illustrates the unintended consequence of using interpreters, with implications for the cost of provision, and the time commitment required from those invited.

"They didn’t have the time to train up an Asian to do the course, they were going to get two white people to deliver the course, get an interpreter in to interpret it, and what they found was instead of the two hour session, it was going to be a three hour session"

Community Pharmacist

One participant suggested that mental health assessments would be a good opportunity to also conduct physical health assessments. Nevertheless there was a concern about the ability of mental health services to be able to resource the work expected from them by this recommendation.
"Mental health services are the most underfunded bit of the health service"
Diabetologist

The funding and service capacity issues referred to above were not expected to get better in the foreseeable future. For some participants this meant that they viewed recommendation 10 as appropriate, but unrealistic.

"(It) reads like motherhood and apple pie....I mean it sounds like a good idea but I just don’t believe it (will happen)".
GP

As with recommendation 6, some participants suggested that this recommendation should be backed by a social marketing campaign to raise awareness in local areas, and with specific communities.

One participant believed that there was a role for more clear disapproval of obesity within society, and among health professionals. This participant drew parallels with smokers, who had been made to understand that their habit was frowned upon, and ultimately banned in public places, resulting in reduced prevalence.

"I think consultants do (deliver harsh messages) which is why we remain not very popular, (but)... I think some GPs don’t, a lot of nurses sort of pamper to the patients but that’s just a personal opinion, not got by evidence it’s just sort of a personal observation".
Diabetologist

Online consultation responses to recommendation 10

There were very few responses to this recommendation. The only comments were in relation to factors that might help or hinder implementation.

“A lack of funding to develop such services. Finding an appropriate contact/leader in the community to help deliver the message and get people to attend such services.”
Recommendation 11 Diabetes prevention programmes for people in long-stay institutions and residential care

Whose health will benefit?
Adults in institutional settings such as prisons, remand centres, hostels, nursing and residential homes.

Who should take action?
- Hostel, nursing and residential care home, day centre and luncheon club managers and staff.
- Prison governors and officers.
- People who provide meals or physical activities for individuals at high risk of diabetes and who are living in residential or other institutional settings.

What action should they take?
- Ensure staff understand the factors associated with the development of type 2 diabetes and how they can help people reduce their risk.
- Provide integrated risk-assessment services and intensive lifestyle-change programmes for prisoners or residents, as appropriate.
- Educate those involved in purchasing or preparing food on what constitutes a healthy diet and how to prepare healthy meals.

Educate staff about the benefits of physical activity and reducing the time spent being sedentary. Where possible, increase the opportunities for those in their care to be physically active.

This recommendation was not included in the main stage of the fieldwork, because the relevant action takers for this recommendation are very specific, with no overlap to action on other recommendations. Please note that this recommendation was subject to simultaneous consultation through the NICE stakeholder consultation process. However, one participant interviewed had previously been a Pharmacist in the prison service. He pointed out that some prisons were effectively "short stay" prisons servicing local courts. Implementation efforts should be targeted on longer stay prisons, where staff could develop relationships with prisoners and engage them on health issues.

There were also a small number of responses received via the online consultation.

In relation to implementation, one comment focused on the practical difficulties of improving diets among people in long stay institutions, and suggested additional measures may be required.

“A lack of funding for such programmes. It'll need further investment. Not just an intensive programme for patients but also for staff. Many patients in these institutions are free to order takeaways and only eat high fat, high sugar, high calorie snacks. Patients in these settings need much more support to make healthier food choices. Healthier choices need to become the norm, so that snacking on fruit and vegetables is easy and accessible, whereas snacking on chocolate and crisps is not. Often patients are left to their own devices as a way to encourage them to become dependent in all areas of their lives. However, if 60% of the general adult population of the UK is overweight or obese then staff as well as patients need support to make healthier food choices.”
**Recommendation 12 Evaluation of intensive lifestyle-change programmes**

**Whose health will benefit?**
Adults at high risk of developing type 2 diabetes.

**Who should take action?**
Managers and providers of intensive lifestyle-change programmes.

**What action should they take?**
Evaluate programmes by recording people’s health outcomes at 12 months or more frequently, if considered appropriate (for example, every 6 months). The evaluation should include, as a minimum, the following core set of measures:

- number and demographics of adults registered
- level of attendance
- changes in FPG or HbA1c levels
- changes in weight, waist circumference or BMI
- changes in the amount of moderate to vigorous physical activity undertaken each week
- changes in dietary intake, with a focus on total intake of fat, saturated fat and fibre
- monitoring and audit of the programme delivered against a recognised standard and comparison with other programmes.

Ensure a health psychologist, the programme trainer or another suitably qualified person regularly monitors the quality of delivery (for example, the use of behaviour-change techniques and empathy-building skills).

**Clarity of recommendation**

Two queries were raised about the meaning of this recommendation, and they reflect the fact that some participants read the text from particular perspectives.

Measurement of health outcomes after 12 months is recommended, and one participant asked for clarification on whether this meant that interventions should have a duration of 12 months, or if it meant that people should be followed up after the intervention had finished.

Another participant thought that the purpose of the evaluation was to provide further advice to the individual patients.

"Great, you’re going to evaluate it. Then what? How are you going to advise your patients?"

Manager of Community Project and Health and Well Being Board Member

These queries demonstrate that some professionals and practitioners arrive at the guidance with particular perspectives, and not everybody for whom the guidance is relevant shares the same default assumptions about fundamental principles of evaluation.

**Relevance and usefulness**

One participant thought that the advice provided in this recommendation was too basic to be useful. He thought that all Commissioners would be aware of the need to do things
specified in this recommendation. He would welcome advice from NICE about methodology, but not about such simple matters as what needs to be measured.

"It seems kind of a well meaning advice, but, for people who evaluate and commission services as their job... this is really, this is really basic stuff and it’s not really very helpful".

Health and Well-Being Board Member

Another participant suggested a subtle change to the time intervals specified in the recommendation, to guide evaluators towards focusing on measuring long-term outcome.

"The problem with that is that everyone loses weight over 3 months, fairly few lose weight at 12 months, so I would say at, something like, no more than 15 months and no less than 6 months. It’s a long term change that one’s interested in"

Senior Public Health Manager

However, achieving a long-term focus in an evaluation may not be easy to do, as explained below.

**Impact on current services, policies and practices, and factors affecting implementation**

Some participants had concerns about the costs involved in collecting data long after the intervention has finished, since there would be no regular contact with the individuals at that point. The data required (e.g. FPG or HbA1c levels, weight and waist measurement, dietary and physical activity behaviours) are time-consuming to collect, and would require face-to-face appointments.

"I’m assuming that these interventions would be designed to do it for a while and then they’re expected to then self manage. You wouldn’t be expecting to see them 12 months down the line. So that has huge implications for the service if they’ve then got to try and get that information, because you will be spending quite a lot of your time trying to follow up what’s happened to patients and you’re supposed to be delivering the service to new patients. So, yes, I mean that’s quite a lot of work.”

Senior NHS Commissioning Manager

It was noted that, if long-term outcomes are to be measured, significant funding has to be set aside for the evaluation, at the commissioning stage.

One participant believed that interventions should encourage patients to do their own self-assessment, and that there was an obligation on the evaluators to feedback data on an individual level.

" I think it’s always good for an individual engaged in changed to start noticing progress, you know, so even the smallest change that happens. So there’s something about... self-assessment of change... Anybody delivering a programme should be also feeding that progress to an individual in an on-going way."

Senior Public Health Manager
Online consultation responses to recommendation 12

There was support for this recommendation, which was felt to be clear and easy to understand. The only comments related to concerns about the funding to implement the recommendation and a view that it should be both national and mandatory.
Recommendation 13 Use of medication

Whose health will benefit?
Adults whose blood glucose measure (FPG or HbA1c) shows continued progress towards type 2 diabetes and who are not benefiting (or cannot benefit) from lifestyle interventions.

Who should take action?
Doctors, non-medical prescribers and pharmacists in primary and secondary care.

What action should they take?
Only use medication as a secondary intervention and always in conjunction with an intensive lifestyle-change programme.

Explain that long-term lifestyle change can be more effective than drug interventions in preventing or delaying diabetes. Encourage people to adopt a healthy diet and be as active as possible. Where appropriate, stress the added health and social benefits. (As an example, point out that physical activity helps reduce the risk of heart disease, improves mental health and is also a good way of making friends.)

Use clinical judgement about when to offer medication to support lifestyle change, taking into account the person’s risk and the level of lifestyle change required.

Offer to prescribe standard metformin for people whose blood test results have not altered as a result of lifestyle interventions, or the results have deteriorated. Continue to offer advice on diet and physical activity. Also continue to offer them support to achieve lifestyle and weight-loss goals. Advise them they may need to take standard metformin for the rest of their lives and inform them about possible side effects. Explain that it is ‘off label’ use, gain informed consent and document that in the notes.

Before prescribing someone metformin, ensure their renal function is adequate and that there are no other contraindications to treatment. Then check their renal function twice yearly (more frequently if they are older or if deterioration is suspected). Use clinical judgement and adhere to the British National Formulary guidance on safe use. Start with a low dose for example, 500 mg once daily and build up, as tolerated, to 1500–2000 mg daily. If the person is intolerant of standard metformin consider using modified-release metformin.

Try metformin for 6 to 12 months. Monitor FPG or HbA1c at 3 month intervals. Review use and discontinue if no effect is seen.

Offer orlistat to people with a BMI of 28.0 kg/m2 or more, as part of an overall plan for managing obesity. Discuss the potential benefits and limitations. Advise them to follow a diet that provides 30% of daily food energy as fat intake throughout the day. Offer information and ongoing support from a dietitian or an appropriate healthcare professional.

Agree a weight loss goal with the person and regularly review it with them.

Review the use of orlistat after 12 weeks. If the person has been unable to lose at least 5% of their original body weight, use clinical judgement to decide whether to stop its use. However, as with adults who have type 2 diabetes, those at high risk of the condition may lose weight more slowly than average, so less strict goals may be appropriate.
Only use orlistat for more than 12 months (usually for weight maintenance) after discussing the potential benefits and limitations with the person concerned.

Clarity of recommendation

This was generally considered to be clear and understandable, with one reservation about the definition of "intolerant", as discussed below.

Relevance and usefulness

There are some concerns about the strength of the evidence base for the use of metformin, and its appropriateness for those at risk of diabetes. These concerns are discussed in more detail below.

Impact on current services, policies and practices, and factors affecting implementation

Discussions about the relationship with current services, policies and practices and implementation were dominated by concerns around the appropriateness of metformin for those at risk (rather than people diagnosed with diabetes), the strength of the evidence base, and whether GPs would feel confident in recommending it.

"I think this is highly experimental unless there is new evidence."

GP

"I think many GPs are going to say well 'no I wouldn’t really feel very comfortable', and also it means you have to sign it, you know get patients to sign consent forms to say they understand it’s off licence."

GP

Among those expressing such concerns, there was a view that insufficient evidence exists currently to justify the use of metformin with people at high risk of developing type 2 diabetes.

Only the Community Pharmacists, GPs and Diabetologists were asked for their views on this recommendation, with three participants in each of these categories. Some participants reported that in their view there was a division within the clinical community about the wisdom of prescribing metformin for those at risk. Those in favour were in the minority among our fieldwork participants, and one Diabetologist said that his favourable view put him in a minority among Diabetologists.

"I like the metformin idea a lot because there’s good evidence of that, and having a guideline would actually be helpful to me when I (try to) persuade people."

Note that most participants had not read the full draft guidance, and would therefore not have seen the explanation about relevant considerations or the evidence statements when making this recommendation.
"I want to see the evidence for this. I have not seen good evidence that metformin prevents progression."

The GP quoted above thought that a locally enhanced service agreement would be necessary to ensure that at risk patients prescribed metformin were followed up by the GP. One participant suggested that this may also be suitable as an issue to be included in the Quality and Outcomes Framework.

One Diabetologist thought the recommendation was helpful, but more so for Pharmacists than Doctors. He felt that knowledge about metformin among Doctors and Pharmacists was good, and there would be negligible additional costs in terms of training, though it may be necessary to develop some literature for patients about the medication.

"For doctors we have already got recommendations for managing people with diabetes, and they say when to use medication and when not to use medication, and what needs to be done. .... But this acts as a good summary, which is just for (pharmacists) to read in 3 minutes to say what steps you need to take whenever somebody is given a new medication."

Diabetologist

Patient compliance was anticipated as a problem as some participants believed there to be side-effects associated with metformin. One participant suggested that reference should be made to the New Medicines Service, which seeks to improve patient compliance with new medicines.

One participant had a specific concern about "modified release metformin".

"I think the evidence base for using modified release metformin is poor (and the recommendation needs to) define 'intolerant'.... I wouldn't put that in there about using modified release metformin... I don't think it adds anything."

Head of Medicines Management

The recommendation on orlistat received far fewer comments, but also divided opinion. One GP welcomed this recommendation, but another had serious doubts about the credibility of orlistat, which he claimed tended to produce short-term but unsustained weight loss.

Online consultation responses to recommendation 13

One respondent found this recommendation unclear.

“No - confusing. If they are trialling metformin then surely they may as well be put on the diabetes pathway because otherwise there will be confusion over their diagnosis.”
In relation to factors that may affect implementation, a respondent felt that dietary support was required to work alongside medication.

“Patients need dietary support when trialling orlistat. All too often orlistat fails because patients are unable to recognise what aspects of their diet is causing symptoms and therefore stop. Patients can sometimes treat orlistat as a quick fix rather than a tool that can help them make changes to their diet by reducing the fat content of foods/meals.”
**Recommendation 14 Surgical intervention**

**Whose health will benefit?**

Adults with a body mass index (BMI) of 40 kg/m² or more who:
- have been identified as being at high risk of type 2 diabetes and
- are not benefitting (or cannot benefit) from lifestyle interventions or medication.

Adults with a BMI of between 35 kg/m² and 40 kg/m² who:
- have been identified as being at high risk of type 2 diabetes and
- are not benefitting (or cannot benefit) from lifestyle interventions and medication and
- whose risk could be reduced and
- who have another significant condition that could be improved if they lost weight.

**Who should take action?**
- GPs.
- Surgeons specialising in bariatric surgery.

**What action should they take?**

GPs should refer adults for consultation for surgery if:
- they have a body mass index of 40 kg/m² or more, or who are between 35 kg/m² and 40 kg/m² and have another significant condition that could be improved if they lost weight and
- all non-surgical measures have been tried and not achieved or maintained a clinically beneficial weight loss for at least 6 months.

GPs should refer adults with a BMI of more than 50 kg/m² for surgical intervention if this is considered appropriate as a first-line option (instead of lifestyle interventions or drug treatment).

The choice of surgical intervention (for example gastric bypass or gastric banding) should be made jointly by the person and the clinician. Discuss the potential benefits and longer-term implications of surgery as well as the associated risks, including complications and peri-operative mortality.

After surgery, provide ongoing guidance and support to help them make changes to their diet and physical activity levels to maintain weight loss and further reduce the risk of type 2 diabetes. In addition, encourage them to participate in an intensive lifestyle-change programme.

Monitor progress regularly (at least annually). Use clinical judgement, based on the person’s risk profile (such as age, BMI, ethnicity, or any other illnesses or conditions) to decide how frequently they should be monitored.

**Clarity of recommendation**

This recommendation raised no issues on which participants asked for clarification.

One participating Diabetologist thought it might be helpful to specify some "other significant conditions" in the first bullet point under actions to be taken. He specified the relevant conditions as being ischemic heart disease, stroke and sleep apnoea.
Relevance and usefulness

Some participants questioned why this recommendation had been included, since other NICE guidance already covered obesity and bariatric surgery. However one participant thought that the recommendation text could be developed into a useful information sheet, which GPs could use to talk patients through the process, and the issues to be considered.

One participant suggested that the recommendation should also refer to the need to provide post-operative support for the psychological and physical consequences of surgery.

"They need support from us to make sure they don’t become blind for vitamin A deficiency and things. They need the psychologist to carry through them, and because they lose, they have a lot of flab around the skin, that upsets them."

GP

"(It’s) talking about a major operation... you need to have a specialist team to talk about it (to the patient)."

GP

Impact on current services, policies and practices, and factors affecting implementation

All participants commenting on this recommendation (GPs and Diabetologists) were supportive.

"Because... it’s going to save money in other budgets, and we know that fifty percent of people with diabetes don’t take their medication, and all these new medications that are costing huge amounts of money. So yes I mean maybe it’s expensive as an outlay, but then it’s probably cheaper in the long run."

GP

However, it was anticipated that this recommendation would prove controversial. Participants reported that funding had already been reduced or stopped in many areas. One participant suggested that clinicians already agreed with the approach taken in this recommendation, but Commissioners need to be specified as action takers, because they are the ones currently blocking implementation. (Note that most participants commenting on this recommendation would not have been aware of the specific recommendations for Commissioners (15-17) when making these comments).

"... our local PCT has basically just stopped the service for people with a BMI of forty five or fifty five... the service has stopped."

Diabetologist

Some participants acknowledged that the criteria (e.g. BMI level) for referral to bariatric surgery could be a sensitive matter at a local level, because commissioners used such thresholds as a means of managing the budget for bariatric surgery, particularly in areas with high levels of obesity.
"... that’s purely as a rationing measure, because as I mentioned we’re a very fat area."
GP

"The actions are fine.... As long as the GPs are given a very clear guideline as to who will be the patients who can be referred to the surgical prevention, and if that is agreed locally, because I know that there (has been) deviation from national recommendations locally."
Diabetologist

The list of action takers includes only GPs and surgeons. A number of participants were insistent that the patient should to see a physician specialising in obesity before seeing the surgeon. This middle stage is important for two reasons. Firstly, so that underlying medical causes can be thoroughly explored; secondly, because a specialist is needed to assess any relevant other "significant condition that could be improved if they lost weight".

"(They should see a physician) who deals with obesity so that patient can have to make sure that all medical causes are excluded? That all those areas of lifestyle intervention have been addressed and exhausted."
GP

Another participant thought that the Diabetes specialist service should be included on the list of action takers, since they are very often involved in contributing to the decision on whether to recommend bariatric surgery, and often run the obesity services.

"What the GPs (do) whenever they see a patient with a high BMI, with managing diabetes, the diabetes is not coming under control so their first contact would be the diabetes specialist and just ask them to say what is the best way to go forward here, and then the diabetes specialist then would take a call looking at their indication and contra-indications and then to say that this person would benefit from surgery... at many hospitals, the obesity services are run by the diabetes specialist so we are in partnership with the surgeons."
Diabetologist

According to a participating Diabetologist, the major barrier to implementation of this recommendation is the shortage of specialists, which means very long waiting lists in some areas.

**Online consultation responses to recommendation 14**

There were no comments on this recommendation.
**Recommendation 15 Assessing and evaluating local need and capacity**

**Whose health will benefit?**
Adults at high risk of developing type 2 diabetes.

**Who should take action?**
Commissioners and providers of public health services.

**What action should they take?**
Identify and map local diet, weight management and physical activity services and interventions. Include details about location, opening times and accessibility, staffing levels and the range of professional skills available. Also include details of any tailored support provided by trained personnel.

Use anonymised, regional and local health data and routinely collected surveillance data to identify local needs. These data could be geographical or in relation to specific population groups.

Develop an action plan based on these data, setting out organisational responsibilities for local provision. Plan services for people from different ethnic groups and those who are vulnerable, including for people who are socially disadvantaged. Ensure provision is at times and in locations that meet local people’s needs.

Regularly evaluate services in the context of this guidance and changing local needs. Use local accountability mechanisms (for example, health scrutiny reports) to examine specific issues.

**Clarity of recommendation**

Most participants seemed to understand this recommendation, and had no significant queries about its content. One participant interpreted the recommendation as being about individual patients - understanding their needs and evaluating their personal outcomes. This seems to have been due to incomplete preparation for the interview, but it does reveal the potential for misunderstanding.

**Relevance and usefulness**

No participants disputed the relevance or usefulness of this recommendation, though there were some indications that it was seen as "ideal", but not always realistically achievable.

**Impact on current services, policies and practices, and factors affecting implementation**

Although no participants disagreed with this recommendation in principle, and some said it was in line with current practice, there was evidence of a pragmatic approach to mapping and evaluation, because of financial/resource constraints.

"(Mapping services)... tends to be done when the need arises... As commissioners we should be evaluating things regularly, but I think the reality is... at the moment, financial implications and there’s so few of us around, it is more fragmented and you focus on the latest problem. But I think this is one of those things where you could be throwing money down in the drain if you are not ensuring the outcomes are being achieved."
One participant thought that partners/stakeholders should be involved when developing action plan.

"You won’t be able to develop an action plan without….bringing in the key stakeholders."  

Senior Public Health Manager

Resources held by partners may also be able to help at the mapping stage. One participant was manager of a voluntary sector alliance which had built its own database of services, which could contribute to the mapping exercise required by this recommendation.

One participant had serious concerns about the likelihood of primary care using a comprehensive map/database services effectively. She believed that GPs and Practice Nurses would not use the information in a systematic way, but rather in a piecemeal way, and they would therefore not develop a sophisticated understanding of local services. This was compounded by the fact that many primary care clinics do not use technology very effectively, and consequently the updating of service information becomes problematic.

"I think this (recommendation) is... completely sensible, but it is a difficult one to achieve practically, because... GPs tend to have paper copies of things... So it is perfectly sensible to recommend that you make sure that people are aware of what’s changed, what’s new, what’s stopped working. It’s .... a nice thing to do but probably gets put on the back burner.”  

Senior NHS Commissioning Manager

One senior manager from a Health and Well-Being Board was of the view that recommendations 15-17 did not add anything to the overall guidance, and should be removed.

**Online consultation responses to recommendation 15**

There were two responses to this recommendation. One questioned how commissioners and public health providers would be held accountable for meeting this recommendation, while the other suggested that it may lead to postcode inequalities depending on commissioning priorities.
Recommendation 16 Commissioning risk-assessment programmes

Whose health will benefit?
Adults at high risk of developing type 2 diabetes.

Who should take action?
- Commissioners and providers of public health services.
- Health and wellbeing boards in upper tier and unitary local authorities.

What action should they take?
Make diabetes prevention a local health priority.

Develop a comprehensive, coordinated local diabetes prevention strategy. This should include actions to raise awareness of the risks of type 2 diabetes, risk assessment and an evidence-based, quality-assured intensive lifestyle-change programme(s). Integrate this strategy with the joint health and wellbeing strategy and deliver it through services operating across the NHS, local authorities, the commercial and voluntary sectors.

Establish arrangements for the local NHS Health Check programme to invite adults aged 25 and over for a diabetes risk assessment at least once every 5 years. In particular, this should include adults from South Asian, Chinese, African-Caribbean and black African populations (excluding those already diagnosed with diabetes). The aim is to determine their risk of developing diabetes and offer support and advice to help them reduce or manage that risk.

Commission integrated risk-assessment services which use a two-stage approach (see recommendation 1).

Ensure risk assessments and lifestyle-change programmes are delivered by trained practitioners (see recommendation 18).

Improve access to risk assessment and intensive lifestyle-change programmes for those who have difficulty accessing, or who are unlikely to access, services in conventional healthcare settings. For example, commission services that provide extended hours, walk-in services and mobile or outreach facilities. These could be provided in health, community and social care settings (see recommendation 2).

Work with providers to develop coordinated referral pathways for intensive lifestyle-change programmes.

Keep information about local provision of diet, weight management and physical activity interventions and services (for example, slimming clubs) up-to-date. Disseminate it to healthcare professionals and practitioners who provide risk assessments or intensive lifestyle-change programmes.

Commission occupational health services to offer diabetes risk assessments in the workplace. Encourage employers in public and private sector organisations to include risk assessments in their occupational health service contracts.
Clarity of recommendation

The fourth action point calls for Commissioners and Health and Well-Being Boards to "commission integrated risk-assessment services which use a two-stage approach". There is some scope for misunderstanding on this point, since it is not entirely clear what is meant by "integrated".

"Commission ‘integrated’, well, they’re not integrated .... it’s nonsense, it’s (only) Diabetes at the moment in this (guidance) document."
Senior Public Health Manager

One participant queried why adults from African-Caribbean and black African populations were mentioned in recommendation 16, but not previously. (In fact, they were mentioned in recommendation 10, but the participant was more likely to be referring to the absence of any specification of these population groups in recommendations one and two).

Relevance and usefulness

Participants did not comment directly on the relevance of this recommendation. This may be because the relevance of risk assessment programmes had already been discussed in the early recommendations.

Impact on current services, policies and practices, and factors affecting implementation

As noted on earlier recommendations, some participants have strong views about the need to integrate diabetes risk assessment with programmes for non-communicable diseases (particularly CVD). The quotation shown below came from one such participant, who was sceptical about a diabetes specific programme withstanding scrutiny, on grounds of cost effectiveness.

"It has not been before the national screening committee and it should be. The cost effectiveness of doing that should be assessed by the national screening committee. You are putting a screening programme in here and that should go to the national screening committee in my view."
Senior Public Health Manager

Another senior public health manager understood this perspective, but took a more flexible view, suggesting that that it may be necessary to develop a separate diabetes prevention strategy, or may be more appropriate to integrate with other strategies, depending on local circumstances.

Nevertheless, one senior public health manager had concerns about whether it was realistic to add diabetes risk assessment to existing programmes, such as the NHS Health Check programme, without additional funding. In the absence of such funding, this manager thought that the requirement would need to be put into the Quality and Outcomes Framework, which would inevitably mean that some other priority would need to be dropped from the framework, to make way for this new requirement.
The recommendation to invite adults aged 25 and over for diabetes risk assessment was considered extremely expensive, particularly in areas with a high proportion of the population from the specified BME communities.

There was a divergence of opinion on the recommendation to commission occupational health services. One participant was particularly keen on this, but some commissioning managers had concerns over where responsibility lay for such services.

"Occupational health services - I think that’s a really good idea... because people... especially those who are doing low paid jobs... they often can't access things like screening programmes... but if they get half an hour of off work to go and have a check with their occupational health nurse, they're highly likely to go."

PCT Chair

"I was not sure how easy that would be to do on a local level. I mean probably public health teams emphasise that, but that would probably be a regional/national type thing to work with the private sector to do that. I am not sure. (That) wouldn’t be, at the moment, part of my job to encourage work on what occupational health services offer the private sector."

Senior NHS Commissioning Manager

"Who would commission occupational health services? (Employers over a certain size are) supposed to provide occupational health services for their work staff. Now that’s not to say that that necessarily happens, but that is what they’re supposed to do. But if (the recommendation is) saying that... Public Health (should)... commission occupational health services for everybody... you would be taking on responsibility which should be somebody else’s responsibility, and have huge cost implications."

Senior NHS Commissioning Manager

Another concern was raised about the requirement to keep and disseminate information about local provision. This was seen to be "a huge task", given the rate of change across this wide range of services. This concern is consistent with the one mentioned in relation to recommendation 15, on which it was also thought to be difficult to effectively disseminate and update such information to primary care, because of the preference among many GPs for paper documents, rather than online/computer-based solutions.

"... keeping up-to-date information on what’s available is actually a really huge task because things change so quickly... and services no longer exist, or... new ones pop up."

Senior NHS Commissioning Manager

As noted on earlier recommendations, it was pointed out that a clear and strong administrative infrastructure would be required, to minimise duplication across providers, and to minimise the number of patients called in more than once for a risk assessment. As one senior commissioning manager mentioned, patients would not necessarily understand whether an invitation duplicates something that they have already done, or is for something slightly different.
Online consultation responses to recommendation 16

The comments on this recommendation were generally questioning in nature. They focused on whether recommendation might confuse the local delivery of the NHS Health Check programme, how commissioners would be held accountable and whether the age groups identified in the recommendation were appropriate.

“Does this challenge or muddy NHS health checks?”

“How will commissioners be held accountable for meeting this recommendation?”

“It is not appropriate to suggest that the NHS health check programme invite people over 74 or under 40 as it is not cost effective as a programme for these ages. The original DOH economic modelling clearly showed this.”
Recommendation 17 Commissioning intensive lifestyle-change programmes

Whose health will benefit?
Adults at high risk of developing type 2 diabetes.

Who should take action?
- Commissioners and providers of public health services.
- Health and wellbeing boards in upper tier and unitary local authorities.

What action should they take?
Commission evidence-based, quality-assured intensive lifestyle-change programmes that cover diet, physical activity and weight management, and which teach behaviour change techniques. These should be delivered in a range of settings to groups or individuals who have been identified as being at high risk of type 2 diabetes.

Ensure intensive lifestyle-change programmes are available for all adults confirmed as being at high risk of type 2 diabetes. There should be no upper age limit.

Ensure intensive lifestyle-change programmes are delivered by trained practitioners (see recommendation 18).

Commission local dietary, physical activity and weight management initiatives to complement intensive lifestyle-change programmes. For example, commission physical activity services from local authority leisure services. Or commission adult community education classes that have a dietary or physical activity component such as cookery, dancing, or gardening. In addition, commission specific services such as weight management or healthy walk programmes.

Commission the use of medication to prevent or delay type 2 diabetes or aid weight loss in support of an intensive lifestyle-change programme.

Commission bariatric surgery for adults with a BMI of 40 kg/m² or more who:
- have been identified as being at high risk of developing type 2 diabetes
- are not benefitting (or cannot benefit) from lifestyle interventions
- are not benefitting from medication.

Commission bariatric surgery for adults with a BMI of between 35 kg/m² and 40 kg/m² who:
- have been identified as being at high risk of developing type 2 diabetes
- are not benefitting (or cannot benefit) from lifestyle interventions
- are not benefitting from medication
- have another significant disease that could be improved if they lost weight.

Clarity of recommendation

The recommendation text was considered clear.
Relevance and usefulness

Participants were concerned that such detailed specification of eligibility criteria for bariatric surgery would not be helpful at a local level, since a degree of flexibility on these criteria helps local services to manage their budgets.

Impact on current services, policies and practices, and factors affecting implementation

In line with opinions expressed on earlier recommendations, some thought it unlikely that such services would be commissioned specifically for diabetes prevention, believing that this work should be integrated with the prevention of other non-communicable diseases.

Most participants commenting on this recommendation focused on the actions relating to bariatric surgery. As noted on recommendation 14, it is considered contentious to specify BMI levels as precisely as is done in this recommendation, because of the financial implications, with some participants believing that the specified levels would be unaffordable.

"It is not realistic and I think it would be a big mistake if they put it in like that, it could cause huge controversy and difficulty."

PCT Chair

There is clearly significant local variation in current policies. One senior public health manager reported that there was no funding at all for bariatric surgery in his area at the moment. A senior commissioning manager said that it was only available in her area for those with an existing diabetes diagnosis, and those at risk were excluded. A third participant said that the eligibility criteria specified in the recommendation were currently standard practice in his area.

One participant suggested leaving this level of detail out of the recommendation, in order to permit some degree of local flexibility. However, she recognised that this may not be possible, given that there is existing NICE guidance on bariatric surgery. (Note that most participants commenting on this recommendation would not have been aware that it comes directly from the NICE clinical guidelines on obesity).

Behind this request for local flexibility there is a fear that patients may sue local NHS bodies, if their policy is not in line with NICE guidance.

"Due to finances, I know areas have increased BMI level at which people can (qualify for) bariatric surgery... outside... of national guidance... it is controversial and I know there’s patients who have kind of taken local health services to court."

Senior Commissioning Manager

For the purpose of local flexibility, this participant also suggested that the specified criteria for bariatric surgery should include reference to the fact that the patient had followed the appropriate local care pathways for type 2 diabetes risk management.
"Just a note... (to say it is for patients) who have followed local pathways and are suitable for bariatric surgery).”
Senior Commissioning Manager

Online consultation responses to recommendation 17

There was a single comment on this recommendation, asking “how will commissioners be held accountable for meeting this recommendation?”
**Recommendation 18 National public health programmes**

**Whose health will benefit?**
Adults at high risk of developing type 2 diabetes.

**Who should take action?**
Commissioners of public health services.

**What action should they take?**
Commission nationally accredited, coordinated and quality-assured training, resources and support for high quality evidence-based diabetes prevention programmes. This should include research to help establish and implement effective practice. To achieve this:

- Set up a national accreditation body to benchmark, audit and accredit practice and share effective practice in diabetes prevention.
- Set up a national, quality-assured training programme and a central database of effective curriculum resources for intensive lifestyle-change programmes. The programme and resources should meet criteria developed by the Department of Health and Diabetes UK Patient Education Working Group (PEWG).
- Provide certification for practitioners based on evidence-based competences.
- Evaluate the effectiveness of the training and assessment programme. This includes its impact on practice and outcomes for participants.
- Disseminate effective practice, for example, by identifying the characteristics that achieve successful outcomes.

**Clarity of recommendation**

The detail of this recommendation was well understood, though there was a request for an explanation of the rationale behind the need for a national programme.

"I mean... what’s the case for doing those things? They seem to have kind of been... plucked out of the air."

Senior Manager, Health and Well-Being Board

There was some confusion around which actions were local responsibilities, and which ones were national responsibilities. One participant queried the specification of "commissioners of public health services" as action takers. This is a national recommendation but most of those commissioners are at a local level. Similarly, the first two actions are both specified as national, but the final three action points could be interpreted as local actions.

**Relevance and usefulness**

Opinion on relevance was divided between those who saw a clear role for national standard-setting with room for local flexibility, and those who were concerned that these issues should be left for local services to determine.

One participant thought that this recommendation would mean the creation of a national organisation, and had some concern about the potential of every disease/condition having its own national organisation. Along similar lines, another participant thought that the
recommendation was proposing the establishment of a special committee. These participants were concerned about additional costs at the national level, at a time when such matters were supposed to be increasingly devolved to the local level.

"… for every disease you end up with a national body and it all becomes a bit heavy, and then I am not really clear what a national body (would do), NICE already recommends on diabetes, and some of its treatment papers... are very good."

Senior Manager, Health and Well-Being Board

However, others saw the advantage of a national programme, particularly in terms of setting consistent, evidence-based standards, such as those for accreditation. One participant thought that there was a case for establishing national bodies with this remit for other conditions as well.

"I think it is important to keep this one as a national thing."

Senior Commissioning Manager

"Yes basically I thought that was quite a good idea, I think what people might say is... you should have that for all conditions."

NHS Health Check Programme Manager

Impact on current services, policies and practices, and factors affecting implementation

One participant called for the recommendation to acknowledge that the national programme would set the "gold standard", but that there would be significant flexibility for local areas to implement the recommendation in their own way, particularly around issues like eligibility criteria.

One participant pointed out that there is already a lot of good training underway across the country, and this recommendation should acknowledge and build on it. Warwick University was suggested as one such training provider, which should be consulted by the National programme.

"(The recommendation should) take on board probably a lot of good training already developed that you can build on. I don't think it means starting from scratch."

Senior Public Health Manager

Nevertheless, another participant identified consistency in standards, and assistance with appropriate resources, to be the strengths of this recommendation.

"I think that’s... important... something that’s consistent.... one of the problems is it’s hard to get resources at the moment."

Senior Public Health Manager
Online consultation responses to recommendation 18

There were three responses to this recommendation: two respondents felt it was ‘excellent’ and ‘would love to be involved in this’. The third questioned the value of the proposal.

“I do not believe a national accreditation body is required to benchmark diabetes prevention practice. Diabetes prevention is the same as CHD prevention, cancer prevention etc and many lifestyle services are provided using workers trained and accredited by other existing recognised routes eg Physical activity qualifications, public health practitioners, national stop smoking accreditation, health trainers absolutely no need to set something else up.”
**Recommendation 19 Training and professional development**

**Whose health will benefit?**
Adults at high risk of developing type 2 diabetes.

**Who should take action?**
- National accreditation body for diabetes prevention.
- Commissioners and providers of public health services.
- Managers of diabetes risk-assessment and prevention services.
- Schools of medicine, healthcare faculties, royal colleges and professional associations offering professional healthcare qualifications such as dietetics, nursing, physiotherapy, podiatry and occupational health.
- Voluntary organisations.
- Training organisations in the commercial sector.

**What action should they take?**
Managers of diabetes risk assessment and prevention services should provide opportunities for staff to attend accredited training and refresher courses at least every 3 years. The aim is to ensure up-to-date delivery of the intensive lifestyle-change programme. Training should also be cascaded down through the team(s) via formal and informal in-service training. In addition, peer review processes should be used to encourage sharing of good practice.

Managers of diabetes risk assessment and prevention services should offer training to community and faith leaders, staff in local authority leisure services, day centres, residential and respite care homes and occupational health departments. The training should cover:
- how to carry out an initial risk assessment using validated self-assessment risk questionnaires
- effective ways to communicate the person’s level of risk,
- the consequences of diabetes and the benefits of change
- the provision of brief advice on how to reduce the risk of type 2 diabetes
- how to refer for appropriate interventions.

**Clarity of recommendation**

There were no requests for clarification on any specific points in this recommendation, and there were no indications of misunderstandings, though for a minority of participants it did seem "thrown together".

"It felt as if it was all thrown in together... So it didn't really work for me."  
Discussion group

**Relevance and usefulness**

Throughout this fieldwork concerns were expressed around consistency of messaging, knowledge about local services and communication between diverse organisations. Consequently the great majority of participants considered this recommendation to be
relevant and useful, because they could see that it was striving to promote consistency and enhance knowledge.

"It's important that from a physical activity point of view, we're providing a consistent, clear message that is endorsed by the health service."

Discussion group

Another recurring theme in the fieldwork was the need for an underlying administrative infrastructure, to support this guidance by coordinating and communicating across different organisations. Some participants believed that any training related to the guidance should include a reference to the administrative processes necessary to implement the guidance effectively.

"The whole set-up needs a clear infrastructure, so you know why you're being trained... what this will enable you to do .... because often the case is people get trained in something, and what do they then do with that? So we just need the whole process."

Discussion group

Impact on current services, policies and practices, and factors affecting implementation

As noted above, most participants supported this recommendation, in principle at least. Some participants recommended that training should be compulsory, otherwise there would be poor compliance with the training.

"I think unless it’s mandatory- at some level, you know, you can then do that at the basic level... people will opt out."

Discussion group

The reasons behind fears of poor compliance with training related to cost and practical issues such as staff turnover.

"Who’s going to pick up the cost? How do you deal with staff changes and staff movement?"

Discussion group

It was said to be important that Commissioners incorporate clear requirements for staff training, when writing contract specifications for services in the relevant fields.

Some participants would have liked the recommendation to differentiate between those who already have relevant training (particularly NHS frontline staff), and those without such previous training. Similarly, it was suggested that there should be different levels of training required, depending on the extent to which an individual would be involved in implementing the guidance. For those involved in risk assessments, more advanced "intensive" training would be required, but for those who were merely encouraging participation in risk assessments and signposting to other services, perhaps less formal training would suffice, e.g. CDs, online, leaflets etc.
"... a lot of health professionals are already aware of diabetes, either management or screening or prevention... it doesn't have to be intensive... just a workshop or something."
Discussion group

One participant interpreted the recommendation as being primarily about the elements of the guidance to be conducted in the clinical setting, with little being said about engaging the relevant communities.

"But it doesn't talk about .... actually delivering the interventions out in the community... it's all about actually the assessment at the beginning."
Discussion group

As with other recommendations, many participants reflected on the diabetes-specific focus of this guidance. To these participants it would make more sense to use the training opportunity to tackle a number of related health issues in which lifestyle issues are risk factors, including heart disease and obesity. The diabetes-specific focus was seen as unhelpful by those emphasising a more holistic view of health.

"We've almost gotten into a one-appointment-one-illness scenario, and.. we're losing that ability to look at the person and their illness in the round. They go on the diabetic pathway and not on that one.... personally, I think this one should be amalgamated (across illnesses)."
Discussion group

One participant suggested that the guidance should be rolled out initially to staff in the organisations involved in delivering the guidance. This would help to familiarise those who would take forward the responsibility for the guidance implementation. The "NHS Challenge" was suggested as a suitable campaign with which to work.

"Can we start with the NHS and social services to actually take it into a workplace and set us an example? I think that should be within recommendation."
Discussion group

**Online consultation responses to recommendation 19**

There were two comments on this recommendation. One respondent felt that it was unnecessary what was proposed was ‘already in place via other routes.’ The other comment welcomed the recommendation.

“This is a great recommendation. You need to ensure that staff are appropriately qualified. I’m sure Diabetes UK would be heavily involved in developing more detailed training standards.”
4 Conclusions

Most participants in this fieldwork study welcomed the draft guidance, and found the recommendations to be clear, understandable, relevant and useful. We were repeatedly told of fears that it was becoming more difficult to argue the case for investment in preventative measures, and most of the professionals, practitioners and managers to whom we spoke believed that this new guidance would be helpful in building a case for investment.

Nevertheless, there were significant concerns around some key issues, which are discussed below.

Public expenditure

Fieldwork took place in late 2011, and it is perhaps of little surprise that many conversations with participants were set within the context of increasingly difficult decisions about finance, staffing levels and other resources. All participants expected the financial climate to remain challenging for the foreseeable future.

This context is important in understanding the way that the draft guidance was received. No participant disputed that this draft guidance, if implemented, could potentially save money in the longer term, by reducing the number of people developing type 2 Diabetes, with its consequent health, welfare and social care costs - though one participant did suggest that medication is more cost-effective than lifestyle-change programmes. However, in the perception of our participants, the reality of the current financial climate is that current investment is extremely difficult (or impossible) to justify on the promise of potential longer-term savings.

All of our participants operated at the local level, effectively well downstream from the national decision-making mechanisms. If significant investment in this draft guidance is to be achieved on more than a patchwork basis, it will probably require a national level decision to prioritise and ring-fence investment funding.

Diabetes-specific focus of the guidance

We found that a significant proportion of the participants were not keen on diabetes-specific approaches, and had a strong preference for the guidance to be more explicitly integrated with other non-communicable diseases. Whilst it may be that NICE intends the guidance to be implemented in such a way, particularly through the NHS Health Check programme, this did not come over clearly to participants.

This may be partly because the NHS Health Check programme was far from universally recognised by our participants. This may be because the programme is yet to be rolled out in certain areas, or may be because there is confusion with existing locally enhanced services, or the localised branding of the national programme.
Even where the NHS Health Check programme was recognised, participants had practical concerns about how the new draft diabetes guidance could be incorporated, for example, how it would fit with local criteria used to identify patients to be invited for risk assessment.

**Service capacity**

Even among those welcoming the draft guidance, there were considerable concerns about the ability of services to cope with the increased demand, which it was perceived would arise from implementation of the guidance.

The capacity concerns related to all aspects of the guidance. Some of the participants reported that a systematic process for identifying for diabetes already existed in their area/practice, but this tended to be based on narrower eligibility criteria (e.g. having a first-degree relative with diabetes, being overweight or obese). Thus, most participants anticipated a major increase in the number of patients being assessed, and the number to be recalled, with significant implications for clinical and administrative capacity.

A number of participants were concerned about the cost of doing many more blood tests, and the cost of the self-assessment questionnaires. There was widespread scepticism about the likelihood of quality assured intensive lifestyle-change interventions being funded by local commissioners, and widespread concern that many services to which people should be referred, were currently being cut back or closed down - from physical activity facilities to bariatric surgery.

In summary, many participants feared being overwhelmed by the widened eligibility for risk assessment, the systematic nature of the call up, the cost of assessment and re-assessment, and the substantially increased flow through patients referred to local services.

These concerns were particularly pronounced in areas with a high proportion of the population on low incomes, and from BME communities. Participants in such areas pointed out that half or more of the adult population would need to be assessed, and very large numbers would become eligible for follow-up services. The cost implications of this were compounded in culturally diverse areas, by the need for specialist services such as interpreters (requiring longer appointments), culturally appropriate services and support materials, and more resource intensive community engagement.

Service capacity/funding restrictions mean that some aspects of good practice in commissioning and project management, such as mapping needs and evaluating outcomes, tend to be undertaken only when necessary. These resource limitations suggest that high quality planning and evaluation of the type envisaged in recommendation 12, may be relatively rare in practice.

**Readiness for change**

Related to the concerns above, about finance and service capacity, a number of participants asserted that the guidance (particularly recommendation 6) should feature readiness to change as a key criterion in the decision on whether to refer the person to lifestyle-change
services. This was considered particularly important since many of those at risk would not feel unwell, would not understand the serious implications of diabetes, and would not be ready to recognise their own lifestyle behaviours as being "unhealthy".

Those making this point were concerned about poor compliance, whether in the form of non-attendance at, or poor outcomes from, the intervention. A parallel was made with smoking cessation work, in which it was well understood that people needed to make a psychological commitment before entering services.

Social marketing campaigns

It was pointed out that smoking cessation services benefit from significant investment in social marketing campaigns, and a number of participants called for similar investment to enhance public understanding of vulnerability to diabetes, and the serious consequences of becoming diabetic - issues which, it was claimed, are not well understood by the general public.

Another benefit thought to accrue from a social marketing campaign, was that it could help to increase family and community support around those trying to change the dietary and physical activity behaviours.

Skills, training and support materials

Participants were of the view that this guidance brings with it considerable training implications. These were in relation to frontline services and the need to inform patients about their vulnerability and the consequences of diabetes, to convince them of the benefits of lifestyle-change, and the development of knowledge about relevant local services.

It was thought that staff in primary care often lack confidence and the necessary skills and knowledge to do this work. In leisure services there were concerns around knowledge of diabetes and the consistency of advice provided. In social care, it was thought that many staff would not traditionally think of their roles as incorporating engagement of clients on health issues, and many would lack the time and the knowledge.

A number of participants reported problems in accessing appropriate support material, such as leaflets and fact sheets. These problems often related to not having a budget available to purchase material, but also to a lack of culturally appropriate material on dietary advice and physical exercise.

Despite acknowledgement of the importance of training and skills development, it was also suggested that there would be problems in improving workforce skills, because of the cost of training, and practical considerations such as staff retention/turnover.

Underlying administrative infrastructure
One very common reservation expressed by participants was around the underlying administrative structure that would be necessary to coordinate the implementation of this guidance. The involvement of multiple providers was thought to add a layer of complexity to the administrative processes, with more organisations to coordinate, more systems to integrate, and more scope for communication failure.

It was generally agreed that GP practices were best placed to coordinate, because they had existing recall systems, and had credibility with most patients. However, there were doubts over whether the administrative resources and the IT systems in GP practices would be sufficient to coordinate the complex network of providers. Patients themselves were not regarded as reliable messengers in this respect, so much would depend on the diligence of other providers in communicating with the GP practice, and no participants had faith in this working flawlessly.

Among the problems envisaged were the following:

- duplication of effort, with patients being called in for assessment by multiple providers (and not understanding that that the appointment is duplicated)
- providers of stage 1 assessments failing to send information to the GP (not least because patients make mistakes with information)
- non-GP assessors finding a lower level of risk, because they have incomplete patient information (e.g. family history of diabetes)
- poor communication from follow-up services, for example about compliance with, and outcomes from, lifestyle-change programmes
- IT systems being unable to "talk to each other"

**NHS reorganisation**

The NHS is undergoing considerable change in the next few years, with the move of Public Health into local government, the replacement of PCTs with Clinical Commissioning Groups, and the introduction of Health and Well-Being Boards. All participants were asked whether they thought that current and impending NHS reorganisation would affect implementation of the guidance in any way.

The great majority of participants found this difficult to answer, most typically saying that it was still early in the transitional period, and too early to predict precise changes. Most of them felt that the current financial challenges were much more significant than organisational changes. However, a minority did express some specific views.

On the positive side, Public Health’s move into local government was thought to be helpful, in terms of joining up health, social care and community/leisure services.

On the negative side, the minority expressing any view on the likely impact of Clinical Commissioning Groups were pessimistic, believing that they would be less sympathetic towards investment in non-clinical prevention measures.
Appendix 1: Discussion guide for interviews and focus groups

If people want to register as a stakeholder:
http://www.nice.org.uk/ourguidance/niceguidancebytype/publichealthinterventionguidance/stakeholderregistration/ph_shreg_form.jsp

<table>
<thead>
<tr>
<th>Theme</th>
<th>Notes/Probes</th>
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<tbody>
<tr>
<td><strong>Whole group Introduction of researchers - On behalf of NICE, thank all for attending (2 min)</strong></td>
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<tr>
<td><strong>Housekeeping (group only)</strong></td>
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<tr>
<td>Session length, Toilets, Emergency exits/fire assembly, Mobile phones, off/silent.</td>
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<tr>
<td>Rules for the session: everyone has the right to be heard, respect each others opinions and confidentiality. Please don't talk over other.</td>
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<tr>
<td>Hopefully you have all read the recommendations we sent through - if not, don't worry, we will be looking at them individually.</td>
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<tr>
<td>The purpose of today is to discuss the recommendations and how feasible they will be to implement in practice, particularly in the new structures and ways of working, given the recent and forthcoming changes to organisations and budgets. So do bear in mind that we welcome your thoughts on how things will work in the future.</td>
<td>Take any questions about the scope at this point</td>
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<tr>
<td>Most of the recommendations are about risk assessment or lifestyle interventions. In total there are 19 recommendations, but this is too many to cover in a single workshop. Today we are discussing 11 of the 19. The other 8 tend to be quite specific to particular jobs/roles, so they are being covered in targeted interviews with people in those roles, as well as in the parallel NICE stakeholder consultation.</td>
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<td><strong>Remind people about the scope (2 min)</strong></td>
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<td>(Don't debate scope/evidence. Participants can visit NICE website if they want).</td>
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<td>The Department of Health (DH) asked the National Institute for Health and Clinical Excellence (NICE) to produce public health guidance on the prevention of type 2 diabetes mellitus among</td>
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high-risk groups. This guidance covers **adults**.

The referral was divided into two separate pieces of complementary guidance. This guidance focuses on identifying people at high risk and the provision of effective, cost effective and appropriate interventions for them. The other guidance was published in May 2011. It focused on interventions aimed at shifting the degree of risk within the wider population.

**Check if anybody not familiar with NHS Health Check programme** - use definition on final page, if necessary.

**Reporting, consent & ethics (2 min)**

Consent forms - please let us have these back. Blank copies available.

Recording of discussion to help analysis. Only researchers and transcribers hear these tapes/ read the transcripts. These will not be passed to NICE or anybody else.

In our report nobody will be named, opinions will be anonymised – so, for example, a comment might be attributed to a Public Health Manager, but we would not include any other information that would make you identifiable, such as where you work or the names of any specific projects or organisations you mention. The report should be publicly available on the NICE website from the time the guidance is published.

If NICE personnel present: introduce them, emphasising their observer status and the fact that they will respect confidentiality.

NICE intend to publish the revised, final guidance & fieldwork report in May 2012.

**Whole group - Ask about the flow chart** - check that they all have one and provide copies if not (5 min)

We would like to start by looking at the Diabetes Risk Assessment Flowchart. This was designed to go together with the individual recommendations, to make them clearer.

**SHOW FLOWCHART**

Does this seem clear and understandable?

Do you think it is helpful?
Please bear this flowchart in mind, when we are going through the recommendations.

**INTERVIEWER NOTES:** Once flowchart has been discussed, announce...

**We will now split into two groups** (explain who goes with which Facilitator, and where they go)

Group 1 sequence = 1-6, then 10, then 7-9 and finally 19

Group 2 sequence = 6 then 10, then 19, then 1-5, then 7-9 if there is time

Rec 6 is particularly important - ensure that we get good detailed discussion on this

Recs 7, 8, 9 do not require detailed discussion, but it is important that participants know they are part of the guidance, so just ask for very general views
## Recommendation 1 Risk assessment

### Recommendation 1 discussion

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<tr>
<td>a.</td>
<td>Is this recommendation easy to understand? Which parts, which less clear?</td>
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<td>b.</td>
<td>Do you think it is relevant and useful for your current work or practice?</td>
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<td>c.</td>
<td>What impact might it have on current policy, service, provision or practice</td>
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<td>d.</td>
<td>What factors might impact (positively or negatively) on implementing and delivering the recommendation in your locality/service?</td>
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<td>e.</td>
<td>Thinking about the organisational changes and financial constraints currently and over the next few years, how do you think they will affect this recommendation, if at all? (Relevance, usefulness, implementability?)</td>
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### Probes

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<tr>
<td>A</td>
<td>How could clarity be improved?</td>
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<td>B</td>
<td>More useful &amp; less useful parts</td>
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<td>C,D</td>
<td>Funding, staff, skills/ training, timescale etc</td>
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<td>E</td>
<td>In what way?</td>
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Repeat these questions for the other recommendations to be discussed.

### Closing session, back in whole group (3 min)

We have covered the individual recommendations. Are there any opinions on how they fit together as a complete package? Is anything missing?

Any equalities issues that have not been raised? (Age, disability, gender reassignment, race, religion or belief, sex or sexual orientation).

If that's all, on behalf of NICE I’d like to thank everybody for attending and wish you a safe journey home or back to the office.

Briefly reiterate ethics, consent and next steps.
Appendix 2: Online questionnaire

NICE: Preventing type 2 diabetes - Risk identification and interventions for individuals at high risk

Introduction
Welcome to the Word of Mouth consultation conducted on behalf of NICE, 'Preventing type 2 diabetes: risk identification and interventions for individuals at high risk.

PLEASE READ THIS PAGE
NICE is developing new guidance on this topic. As part of its process to ensure that the guidance is relevant and usable to practitioners, NICE conducts fieldwork to test the draft guidance. This consultation is part of that fieldwork. Your views on the recommendations will be used to refine the guidance.

This online consultation aims to offer professionals and practitioners in the field, the opportunity to comment on the proposed guidance. Further details about the guidance including all the recommendations and the glossary of terms can be found by clicking on the following link click here

THANK YOU FOR PARTICIPATING IN THIS CONSULTATION

Here is a list of the recommendations.
Recommendation 1 Risk assessment
Recommendation 2 Encouraging people to have a risk assessment
Recommendation 3 Communicating the risks of type 2 diabetes and the benefits of prevention
Recommendation 4 Reassessing risk
Recommendation 5 Matching interventions to risk
Recommendation 6 Quality assured intensive lifestyle change programmes
Recommendation 7 Dietary advice
Recommendation 8 Physical activity advice
Recommendation 9 Weight management advice
Recommendation 10 Diabetes prevention programmes for black, minority ethnic and vulnerable groups
Recommendation 11 Diabetes prevention programmes for people in long stay institutions and residential care
Recommendation 12 Evaluation of intensive lifestyle change programmes
Recommendation 13 Use of medication
Recommendation 14 Surgical intervention
Recommendation 15 Assessing and evaluating local need and capacity
Recommendation 16 Commissioning risk assessment programmes
Recommendation 17 Commissioning intensive lifestyle change programmes
Recommendation 18 National public health programmes
Recommendation 19 Training and professional development
Each page of the consultation contains the text of a recommendation, together with a question asking your views on the recommendation. We would value your responses on all the recommendations.
However, if you wish, you can complete the first page, 'About You', and then provide your views on the recommendations overall. This question is repeated at the end of the survey.

Alternatively, you can provide comments only on those recommendations that relate most closely to your area of work and expertise.

The findings from this consultation will be used to inform revisions of the guidance.

### About you

Please tell us what sector you work in. If you work in more than one sector, please select the one that you MAINLY work in

- [ ] NHS
- [ ] Local government
- [ ] Voluntary/charity sector
- [ ] Private sector
- [ ] Not working/student/retired etc
- Other (please specify) …………………………………………………………………………………………………………..

What is your job title …………………………………………………………………………………………………………..

In which region of England do you work/practice?

- [ ] North East
- [ ] North West
- [ ] Yorkshire and Humberside
- [ ] West Midlands
- [ ] East Midlands
- [ ] East of England
- [ ] London
- [ ] South East Coast
- [ ] South Central
- [ ] South West
- Elsewhere (please specify)……………………………………………………………………………………………………………..

Please use the space below to give your views on the entire set of recommendations. (This question is repeated at the end of the consultation if you would prefer to answer it there).
Diabetes Risk Assessment Flowchart
To zoom - hold control key and scroll up

Please comment on the flowchart.
Is this chart clear and understandable? Es it helpful?
Any other comments on the flowchart?

Recommendation 1: Risk assessment
Whose health will benefit?
Adults who are at high risk of developing type 2 diabetes

Who should take action?
Practitioners and managers in primary, secondary and community care, including those working in:
• NHS Health Check programmes
• accident and emergency, occupational health and ophthalmology departments
• community pharmacies
• prison health services
• services providing healthcare for people with conditions which increase the risk of type 2 diabetes (such as cardiovascular disease, stroke, polycystic ovary syndrome, a history of gestational diabetes, mental health issues and learning disabilities)
• vascular surgery and renal surgery units.

What action should they take?
Implement a two stage strategy to: assess the risk of type 2 diabetes using a risk assessment tool (stage 1 see below); and to confirm by blood test when people have diabetes or are at high risk (stage 2 see below).

(Stage 1) GPs or other primary care health professionals should use a validated risk assessment tool to identify all adults aged 25 and over on their GP practice register who may be at high risk of type 2 diabetes. The tool should use data routinely available in primary care. Examples include the Cambridge diabetes risk score or the Leicester practice score.

(Stage 1) Make a selfassessment questionnaire available to all non-pregnant adults in the practice aged over 25 years, if the practice risk tool is unavailable, or if carrying out a risk assessment outside general practice. (An example of one of these tools is the Leicester risk assessment score.) Alternatively, tell people how to access validated online risk assessment tools, such as the diabetes risk score featured on the Diabetes UK website. (The latter is based on the Leicester risk assessment score.)

(Stage 1) Do not exclude people from further investigation or intervention on the basis of age. People aged 25 to 39 years of South Asian descent and people aged 75 years and over (from all ethnic groups) should be assessed. They can all reduce their risk, even though they are not currently eligible for the NHS Health Check programme.

(Stage 2) Trained healthcare professionals should carry out blood tests for adults with high
risk scores. They should also test all those aged 25 and over of South Asian or Chinese
descent whose BMI is greater than 23 kg/m². The aim is to:
• confirm the risk of progression to type 2 diabetes (a fasting plasma glucose (FPG) of 5.5–
  6.9 mmol/l or an HbA1c level of 42–47 mmol/mol (6.0–6.4%) indicates high risk)
• diagnose type 2 diabetes by using either FPG, HbA1c or an oral glucose tolerance test
  (OGTT) according to World Health Organization (WHO) criteria (move right one) (2).
Integrate this two stage strategy, within the NHS Health Check programme (see the flow
diagram ‘Diabetes risk assessment’).
(2) World Health Organization (2011) Use of glycated haemoglobin (HbA1c) in the diagnosis
of diabetes mellitus.

Please use the space below to tell us your views on this draft recommendation.
Is it clear and easy to understand? Is it relevant and useful?

How might it impact on your current services, policies etc?

What issues might you expect to help or hinder implementation of this recommendation?

How might possible service reorganisation and financial constraints affect this
recommendation?

Recommendations 2-19 were then shown in the format illustrated above,
and each of the four open ended questions were repeated for each
recommendation.
Appendix 3: Consent form

Consent to participate

NICE Fieldwork: "Prevention of Type 2 Diabetes Among High Risk Individuals and Groups"
This document explains important details about the fieldwork in which you have verbally agreed to participate. Please read the letter and sign to indicate consent at the end.

As part of the development process for NICE public health guidance, we are carrying out fieldwork on draft guidance on the prevention of type 2 diabetes in high risk individual and groups. This is in order to ascertain your views as a practitioner/commissioner/manager on the relevance, usefulness, and implementability of the draft guidance. NICE is an independent organisation and is responsible for providing national guidance on promoting good health and preventing and treating ill health.

Interviews will last about 30-60 minutes, and the workshops will last about 90 minutes.

We will record the discussion, for reference when reporting. Recordings will be handled in accordance with best practice, with transcripts held securely and destroyed after five years.

The report produced will be used by NICE to produce a final version of its recommendations, and will be published on the NICE website. Your identity will not be revealed in the research or any final products. We may quote you, but all comments will be anonymised.

If you have any questions regarding this research or your rights as a participant, you can contact the project manager, Graham Kelly, at Graham@womresearch.org.uk

Your signature indicates that you have read and understood the information provided above, that you willingly agree to participate, that you understand you may discontinue participation at any time without being required to give a reason and without penalty, and that you have received a copy of this form.

Please fill in the details to indicate consent

Your name..............................................................................................................................................................................

Your signature...........................................................................................................................................................................

Your organisation........................................................................................................................................................................

Date....................................................................................................................................................................................

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