UK National Screening Committee

UK National Screening Committee (UK NSC)

Population screening for type 2 diabetes in adults

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Aim

We are providing an update on the public consultation phase of the evidence map on population screening for type 2 diabetes in adults and requesting feedback on the responses drafted.

Background

The UK National Screening Committee (UK NSC) does not recommend population screening for type 2 diabetes in adults. The Committee based this recommendation on the evidence reported in the 2019 UK NSC evidence summary on population screening for Type 2 diabetes in adults, which found that some evidence that raised levels of glycaemic markers are associated with all-cause mortality and micro- and macrovascular complications of diabetes such as retinopathy and nephropathy, however, there was considerable variability between the included studies in terms of sample characteristics and blood glucose thresholds examined. It concluded that there is no evidence to support whole population screening for type 2 diabetes in adults in the UK.

As a topic which is on the list of those regularly reviewed, population screening for type 2 diabetes in adults was scheduled to be reviewed again in 3-years' time.

2025 Evidence Map

The UK NSC evidence team commissioned an evidence map to review the volume and type of evidence available on population screening for type 2 diabetes in adults in 2025. The evidence map was conducted by Kleijnen Systematic Reviews. The following question was addressed to capture evidence that had been published since the last review:

1. Is there enough evidence from randomised controlled trials demonstrating the benefits of population screening for type 2 diabetes?

Summary of Findings

Question 1:

There were 3 references identified that reported on 2 randomised control trials (RCT); the ADDITION-Cambridge (people at high risk of having type 2 diabetes) and Ely (general population aged 40-65) trials. Both studies found no significant difference between the screening and control groups for all-cause mortality, diabetes-related mortality or cardiovascular disease mortality. For harms, the trials also reported no significant differences between screening and control groups for anxiety, depression, worry, or self-reported health, but one reported a short-term increase in anxiety at 6 weeks among persons screened and diagnosed with diabetes mellitus versus those not diagnosed.

Conclusions

In summary, no strong evidence was identified suggesting that screening can have beneficial outcomes to people identified as having type 2 diabetes, and there is still uncertainty around the effects of population screening on type 2 diabetes.

The findings of this evidence map are unlikely to impact the current recommendation on population screening for type 2 diabetes in adults as limited evidence was identified that would change this conclusion.

Recommendation

On the basis of this evidence map, the volume and type of evidence related to population screening for type 2 diabetes in adults is currently insufficient to justify an update review at this stage and so should be re-considered in 3 years' time.

Public Consultation

A 3-month public consultation was hosted on the UK NSC GOV.UK website from 8 December 2025 to 2 March 2026. The UK NSC consulted on the findings of the evidence map and the recommendation not to any further evidence synthesis on population screening for type 2 diabetes within the UK. Direct emails were sent out to 9 stakeholders (please see Annex A). A total number of 6 consultation responses were received (please see Annex B for full comments).

The key points raised by stakeholders are summarised below:

1. The comments largely agreed with the conclusion of the evidence map not to recommend screening for type 2 diabetes. Some members of the public disagreed with the findings on the basis that not all the evidence had been considered.

Response: The purpose of the UK NSC evidence map is to gauge the volume and type of evidence relating to a condition. If suitable evidence is found, more detailed evidence synthesis work would be commissioned. For type 2 diabetes, only two RCTs were identified and the results did not demonstrate that screening was effective.

2. Some stakeholders suggested focusing future evidence reviews on screening for people at higher risk of type 2 diabetes and extending to people aged below 40 years.

Response: The scope of the current evidence map was largely based on population-based screening though did include a single study on targeted screening for T2D for people who are at higher risk of diabetes which did not demonstrate that screening was effective. For the UK NSC to consider targeted screening for sub-groups of people, we would encourage submissions through the UK NSC open call for topics.

Adule Reference Group (ARG) 18/03/2026

1. The ARG members confirmed that they were happy with the responses to the consultation comments received.
2. The ARG members that the topic should reviewed in 3 to 4 years time. At this point, in the absence of any new evidence they were in favour of archiving the topic.

UK NSC

Now preceding to UK NSC for Chair's Action to note and approve the following recommendation: that further work on this topic should not be commissioned at this time and that the UK NSC should return to review the evidence on type 2 diabetes at a later time as part of its regular review cycle.

Annex A: List of Organisations Contacted

1. Association of British Clinical Diabetologists
2. British Society for Immunology
3. Diabetes UK
4. Royal College of General Practitioners
5. Royal College of Nursing
6. Royal College of Physicians
7. Royal College of Physicians and Surgeons of Glasgow
8. Royal College of Physicians of Edinburgh
9. Primary Care Diabetes Society

Annex B: Consultation Responses

1. XXXX XXXX member of the public

The rise in type 2 diabetes suggested external eg lifestyle or environmental factors. Screening will not slow this.

2. Greg Fell, XXXX XXXX

I will keep my comments brief.
I strongly endorse the recommendation to remain as it is following the evidence review. The obvious critical study is the ADDITION study. Whilst the evidence review notes it is old, the flip side of this is that the follow up is long. As the evidence review notes, even out to now quite long timeframes there appears to be no clear signal that screening for Type 2 diabetes leads to changes in mortality (cause specific or all cause) or quality of life (from which there is an easily inference that there is no change to micro vascular or macro vascular non fatal end points). There are obvious other studies. None with as powerful or relevant (to the question studied) as ADDITION.

Thus, from an evidence based position at least, it would defy logic to change the recommendation.

Of note, there are multiple screening programmes by proxy. Notably through the NHS Healthcheck programme, and the incentives inherent in the Quality and Outcomes framework. It is hard to know how to square the NSC recommendation as it is (and may be following consideration by the committee) and what is actually happening in routine practice, in England at least.

3. XXXX XXXX, member of the public

Affected Comment:

Yes, as a child of Afro Caribbean parents, type 2 diabetes has been highly prevelant amongst both my immediate and extended family.

I have seen how late detection has impacted both my parents where early detection and management could have either delayed or stopped the onset.

Relieving the public purse of the numerous costs incurred in managing the ongoing condition and associated illnesses.

Evidence Comment:

I believe that not all bodies of evidence have been considered in the round.

There is significant evidence from studies highlighting the benefits that would be derived from early detection, education and active management of the condition.

Discussion comment:

Nothing other than the conclusion to be revisited with a wider sample/control group looking at behavioural changes and management of those told about diagnosis early and those diagnosed much later.

Recommendation comment:

Yes for the reasons highlighted above

Alternatives comment:

Education at a younger age in schools, linked to broader discussion on lifestyle and health.

Better education generally on the severeness of the illness (loss of sight, chronic pain and nerve damage, loss of limbs). Many people are unaware of this.

4. XXXX XXXX, member of the public

Affected Comment:

is effecting me and my eyes and my whole life discovered by luck at 32 now im 35 and thanks God is discovered it early this not some thing easy to deal
with is puting you in crisis cos is effecting every part of your body

Evidence Comment:

no

Recommendation comment:

I recommended 100% for evey one who is over wight

Alternatives comment:

the blood test will show every thing same like when u go to any hospitalthe check you for hiv and virus c and b the can check for daibatc as well

Other comments:

yes i have recommendation for the gov and the nhs daibatc is not some thing easy it cost alot of life and money and time to deal with by discovering it early you removing pressure for the nhs and gov to prevent lot of complications like eye kidney heart...all this i see by my eyes and live with it and you can safe money and time by introducing new midcine that showing that is working for Protection for all the part of the body for ppl with daibatc like empagliflozin that is protecting the heart and the kidny and alot of benefit instead of old midcine that is damaging more than it fixing like motformin thanks you

5. Helen Kirrane, Head of Policy and Campaigns, Diabetes UK

Diabetes UK welcomes the UK National Screening Committee consultation on its decision not to recommend screening for type 2 diabetes.

Our response to this consultation highlights a number of important changes that have occurred since the evidence reviews – on which this decision is based – were conducted. These changes have a significant bearing on the conclusions arrived at about the benefits of screening and resulting treatment. Principally:

there has been a steep rise in the proportion of people diagnosed with type 2 diabetes under the age of 40, with particularly high prevalence in certain populations
evidence has emerged that younger onset is associated with a more aggressive phenotype of diabetes, leading to greater morbidity and mortality at a younger age
there have been recent significant changes to NICE recommendations on the treatment of type 2 diabetes, with first line medications now recommended to millions of people at diagnosis – which NICE analysis suggests could prevent around 17,000 deaths over a three-year period across the UK by reducing the risk of heart attacks, strokes and kidney problems.
there is also now in place a national type 2 remission programme, which offers people newly diagnosed a programme of support to potentially put their diabetes into remission, with early evaluation data showing that of those who completed the programme and had two HbA1c (blood glucose) measurements recorded, 32% had put their type 2 diabetes into remission, with an average weight loss of almost 16kg.
We recommend to the UK National Screening Committee that future consideration is given to
• examination of the benefits and disbenefits of screening for targeted high-risk populations, as opposed to whole population screening
• the changing nature of the treatment of type 2 diabetes, which highlights much stronger and longer-term benefits of early identification and treatment of peoples with type 2 diabetes, especially those diagnosed at a younger age.

Changing demographics in the type 2 population

Over the course of the last decade, national audit data has highlighted a steep increase in the proportion of people diagnosed with type 2 diabetes under 40. There are over 187,000 people with type 2 diabetes under the age of 40 in the UK, an increase of almost 60,000 since 2017/18.

People with type 2 diabetes under the age of 40 make up around 4.3% of the type 2 diabetes population, however, prevalence in this age group is rising at a faster rate compared to the over 40 age group. Since 2017/18, there has been a 47% increase in the number of people living with type 2 under the age of 40, compared to 26% in the over 40s.

It is also important to note that more than a third of adults under 40 with type 2 diabetes are from the most deprived quintile in England. Of those aged 26-39 with type 2 diabetes, 32% are from Asian backgrounds and 7% are Black, much higher than the proportion of the general population from these backgrounds. highlighting the importance of the UK National Screening Committee giving due consideration to the possibility of screening for targeted populations within a younger age cohort.

Evidence has also emerged that early onset of type 2 diabetes is more acute and aggressive and is associated with an increased risk, and more rapid onset, with a more rapid deterioration in glycaemic control, a worse cardiometabolic risk factor profile and higher proportions affected with diabetes-related microvascular and macrovascular complications, and premature mortality. Recent research based on data in EU countries shows that being diagnosed with type 2 diabetes at the age of 30 can lead to life expectancy falling by up to 13 years. (Reference: Emerging Risk Factors Collaboration. Life expectancy associated with different ages at diagnosis of type 2 diabetes in high-income countries: 23 million person-years of observation. Lancet Diabetes Endocrinol. 2023 Oct;11(10):731-742. doi: 10.1016/S2213-8587(23)00223-1. Epub 2023 Sep 11. PMID: 37708900; PMCID: PMC7615299.)

This evidence suggests further research is needed to better understand the benefits that a future screening could play in supporting early detection and treatment of undiagnosed diabetes is greater in this younger population.

Changes in the treatment options for people with type 2 diabetes

Since the studies considered as part of the evidence mapping for this consultation were conducted, there have been recent significant changes to NICE recommendations on the treatment of type 2 diabetes.

An update in February 2026 to the NICE guidance for the management of type 2 diabetes (NG28) has resulted in the recommendation SGLT2 inhibitor medications as a first-line treatment which NICE analysis suggests could prevent around 17,000 deaths over a three-year period across the UK by reducing the risk of heart attacks, strokes and kidney problems. The guidance update also recommended earlier intensive treatment for early onset type 2 diabetes of an SGLT-2 inhibitor, together with either a GLP-1 receptor agonist for its cardiovascular, renal and glycaemic benefits or tirzepatide for its glycaemic benefits.
The new guidance and the modelling NICE have undertaken to demonstrate its impact of the update on reducing the risk of heart attacks, strokes and kidney problems and mortality, underpin the much stronger benefits of early identification and treatment of type 2 that exist today compared with when the studies highlighted in the evidence mapping were undertaken.

In addition, the NHS Type 2 Diabetes Path to Remission Programme is now nationally available across England, which offers people who have been diagnosed with type 2 diabetes within 5 years the prospect of effectively putting their condition into remission. Early outcomes data shows that of those who completed the programme and had two HbA1c (blood glucose) measurements recorded, 32% had put their type 2 diabetes into remission, with an average weight loss of almost 16kg. (Reference: Early findings from the NHS Type 2 Diabetes Path to Remission Programme: a prospective evaluation of real-world implementation. Valabhji, Jonathan et al. The Lancet Diabetes & Endocrinology, Volume 12, Issue 9, 653 – 663)

Conclusion

While not providing additional RCT-level evidence to add to the evidence mapping, this submission seeks to highlight to the UK National Screening Committee and other interested parties the potential value of consideration of a more targeted screening programme for early identification and treatment of individuals at a younger age who are living undiagnosed with type 2 diabetes, and

addressing evidence gaps that could consider the value a screening programme amongst a younger, more targeted cohort.

6. Dr Adrian Hayter, Royal College of General Practitioners

Document section and page number	Text or issue to which comments relate	Comment
		The consultation concludes that there is insufficient randomised controlled trial evidence to support population-wide screening for type 2 diabetes within the NHS. However, in practice, the NHS already delivers targeted screening through the NHS Health Check programme for adults aged 40–74 without pre-existing conditions. In that context, the more pertinent question may be whether there is evidence of cost-effectiveness for an additional screening programme aimed at adults under 40 without pre-existing conditions. We suggest that consultations of this nature should not rely solely on limited RCT evidence, but also consider feasibility, acceptability, and the current landscape and workload pressures within primary care. Prevalence data in younger age groups, particularly in areas of higher deprivation, should also inform further scoping work. Excluding adults under 40 from consideration for screening may disproportionately disadvantage more deprived populations, who often experience obesity and metabolic disease at younger ages. Evaluation of targeted screening approaches in younger individuals with raised BMI or other defined risk factors would be a constructive area for future review. We believe there is a clear need for more consistent targeted screening of high-risk groups, including people from diverse ethnic backgrounds, women with a history of gestational diabetes, and those with elevated BMI. In practice, this should largely be delivered through the NHS Health Check programme.
		We note that patients with a learning disability experience pre-diabetes and type 2 diabetes at a younger age and often have significant additional risk factors. Similarly, people living with severe mental illness are known to have increased cardiometabolic risk. In this context, a population health approach that targets defined “at risk” cohorts may be more appropriate than universal screening. Consideration could be given to incorporating structured diabetes case-finding within existing frameworks, such as the annual health check for people with a learning disability and the severe mental illness (SMI) health check. This would allow earlier identification in higher-risk groups using established review mechanisms, rather than introducing a separate population-wide screening programme.

		We recognise that current evidence has not consistently demonstrated that universal population screening for type 2 diabetes results in significant reductions in all-cause mortality or major cardiovascular outcomes when compared with usual care. Large trials suggest that earlier diagnosis through screening does not automatically translate into measurable long-term benefit at a population level.
		Screening may identify individuals with mild or slowly progressive hyperglycaemia who may never go on to develop complications. This raises concerns about unnecessary diagnostic labelling, increased anxiety, greater healthcare utilisation, and potential exposure to pharmacological treatment without clear evidence of benefit.
		A national screening programme would require substantial NHS resource. In the absence of strong evidence of benefit, there is a risk that capacity could be diverted from established interventions, such as cardiovascular risk management, weight management services, and targeted prevention programmes. Primary care already undertakes opportunistic case-finding in high-risk individuals, supported by chronic disease reviews and the NHS Health Check programme. This existing activity may reduce the additional benefit derived from introducing a formal universal screening programme.
		There is strong evidence that identifying individuals with non-diabetic hyperglycaemia and offering structured lifestyle interventions can reduce progression to diabetes. Screening approaches may therefore confer indirect benefit by identifying those most likely to benefit from preventative interventions.
		There remains uncertainty regarding the most appropriate screening modality, including the relative role of HbA1c, fasting plasma glucose, and validated risk scores, as well as the optimal diagnostic thresholds and screening intervals. In addition, variability in test performance across different age groups, ethnic backgrounds, and comorbidity profiles limits confidence in the suitability of a single national screening programme.