

Physical activity is a core goal in prevention of Type 2 diabetes

THE NHS DIABETES PREVENTION PROGRAMME –

A PROGRESS REPORT

Louise Ansari, Director of Prevention at Diabetes UK and member of the NHS Diabetes Prevention Programme Management Group, answers questions on the development of a major new Type 2 diabetes prevention initiative in England

Figures recently published by the National Cardiovascular Intelligence Network show that as many as five million people in England are at high risk of developing Type 2 diabetes¹. It was a timely reminder of the importance of the NHS Diabetes Prevention Programme (NHS DPP), which was first announced in the Five Year Forward View in 2014 and which has been under development over the last 12 months.

This ambitious programme is a joint commitment from NHS England, Public Health England and Diabetes UK, to deliver, at scale, evidence-based behavioural interventions for individuals who have been identified as being at high risk of developing Type 2 diabetes.

Our aim is to reduce people's risk of developing the condition, and relieve the

health system of a major financial burden, both in reducing costs of day-to-day diabetes management, and also potentially reducing the much higher costs of managing complications, such as limb amputation.

Why a prevention programme?

Diabetes is a leading cause of preventable sight loss in people of working age. It is also a major contributor to kidney failure, heart attack, and stroke, and is responsible for as many as 135 amputations in England each week.

As well as the human cost, Type 2 diabetes costs the NHS £8.8bn every year – which represents almost 9 per cent of its budget. If we don't get better at helping people to reduce their risk of

developing the condition, these figures threaten to rise to unsustainable levels.

Ninety per cent of people with diabetes have Type 2, which is largely preventable. The NHS DPP will be available across England, offering individuals who are identified as being at high risk of Type 2 – through an NHS Health Check, existing data on a GP practice register or opportunistic assessments – a place on an evidence-based behavioural intervention.

By investing in prevention, and stopping or delaying people getting Type 2 diabetes, we have a real opportunity to reduce costs further down the pathway of care. The risk factors for Type 2 diabetes are also risk factors for other serious conditions like cardiovascular disease. So helping people reduce their risk of Type 2 will have the added benefit ▶

of reducing their risk of developing these other serious illnesses.

What's the evidence that this will work?

The NHS DPP is the first national diabetes prevention programme delivered at scale – but it is based on models of successful programmes and trials. A comprehensive review of the evidence, commissioned by Public Health England, was published earlier this year². This review provides the most up-to-date evidence available regarding effectiveness of diabetes prevention programmes targeting high-risk groups, and it supports the proposition from controlled clinical trials that such interventions can be effective. The review shows that programmes similar to the NHS DPP can be successful in preventing 26 per cent of people at high risk of Type 2 diabetes from going on to develop the condition at 12–18 months.

The programme's Expert Reference Group used the evidence review, alongside National Institute for Health and Care Excellence (NICE) guidelines, to draft a service specification for the NHS DPP intervention, which was subject to a consultation over the summer with the public, healthcare professionals and potential providers. Alongside the review of the evidence, seven demonstrator sites have started introducing new services or expanding their existing services, and their practical experience will also ensure the final service specification for the programme is as effective as possible.

How will the Prevention Programme help people reduce their risk?

Based on the evidence, the NHS DPP behavioural intervention will be underpinned by three core goals:

- weight loss
- achievement of dietary recommendations
- achievement of physical activity recommendations.

While the intervention will need to meet local needs of participants, to be effective we know it will need to be long term, made up of at least 13 sessions,



Regular exercise can help people at risk achieve their weight loss goals

spread across a minimum period of nine months.

As well as providing information and advice about Type 2 diabetes, dietary change and physical activity, there will be a strong behaviour change element to the intervention, so that participants

“Programmes similar to the NHS DPP can prevent 26 per cent of people at risk of Type 2 from going on to develop the condition...”

will be supported to set and achieve goals, and establish sustainable change. It is likely that sessions will be delivered predominantly in groups and will be 'face-to-face', although there will also be an opportunity to trial innovative and novel ways to engage people.

Who's eligible, and how will they be referred to the programme?

The NHS DPP will be available to anyone over 18 identified as having non-diabetic hyperglycaemia, defined as having an HbA1c 42–47 mmol/mol (6.0–6.4 per cent) or a fasting plasma glucose of 5.5–6.9 mmol/l. This reading puts them at the highest risk of developing Type 2 diabetes. The NHS DPP has not been designed as a screening programme; rather, it will be available for those already identified to have non-diabetic hyperglycaemia.

It is anticipated that individuals would be referred into the programme via two main mechanisms:

- Identification by GP surgeries through standard clinical practice and/or maintenance of a register of patients at high risk of Type 2 diabetes.
- The NHS Health Check programme, through which patients at risk of Type 2 are identified through the diabetes filter element.

There will also be a role for opportunistic and outreach work to widen access to the programme through the use of a validated risk score in community settings, or through encouraging individuals to find out their own level of risk online. Those identified as at risk would then be encouraged or invited for a blood test, to check their eligibility for the programme.

When will it happen?

In many areas, there is currently a lack of availability of behavioural interventions for GPs to refer into, and the capacity of these services also varies. For the initial phase of the programme NHS England will both commission and fund the programme nationally to ensure services are available across the country, are implemented at pace and are consistent with the evidence.

Implementation of the programme will be iterative, with integrated evaluation and ongoing adaptation to ensure that it reaches those who need it most and to maximise effectiveness. The NHS DPP is being designed across three phases, designed to develop the evidence in a staged way, with checks and balances



Healthy eating is a key Type 2 prevention goal

Just Beat It! – The impact of diabetes prevention in County Durham

County Durham's Just Beat It! programme is one of the seven demonstrator sites for the NHS DPP. Stewart Doyle, Health Improvement Specialist from County Durham and Darlington NHS Foundation Trust, explains how the programme supports people to reduce their risk

It is exciting to be part of a national drive to prevent Type 2 diabetes – the first of its kind in the world. We have been working locally on trying to reduce diabetes since February 2014, when we launched Just Beat It!, an initial six-month pilot. The programme is an intensive lifestyle quality assured programme, which includes:

- initial six months programme

- education & exercise sessions
- weekly sessions
- support resources
- follow-up support for 18 months.

The number of people going through the pilot was small (13), but it showed promising results. Nearly half of our participants stayed with the programme for the full year, two-thirds reduced their score

on the Diabetes UK Know Your Risk tool, and all our participants lost weight. At Just Beat It!, it makes sense to us that lifestyle interventions should be the first-line treatment for people on the verge of developing Type 2 diabetes – but still have an opportunity to prevent it.

We've learnt a number of key lessons throughout the development and implementation of the Just

Beat It! programme:

- Maximise patient contact – everyone who starts the programme has an individual mentor who provides support as and when the individual needs it, so that there is always someone there to turn to for support.
- Longer, intensive programmes – people at risk of developing Type 2 diabetes have generally



throughout implementation:

- Pre-procurement phase – working with the demonstrator sites, consulting on the service specification and developing the evaluation framework.
- Phase 1 – delivering between 10,000 and 30,000 behavioural interventions

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across England in 2015/2016.

- Phase 2 – delivering long-term contracts to scale up to full coverage by 2019/2020 (subject to final decisions about the pace of implementation).

The seven demonstrator sites for the programme – based in Bradford,

Birmingham, County Durham, Herefordshire, Medway, Salford and Southwark – are all taking different approaches to implementing a DPP in their area, either expanding existing successful prevention programmes, adapting other programmes or developing new approaches.

They are also taking innovative approaches to engaging people in their programmes, through working in partnership with other organisations or engaging volunteers to help raise awareness and uptake of the service (see Just Beat It! case study, below). The national procurement will allow for and encourage this kind of innovation, as we know that one size does not fit all for such a diverse target audience.

How are you involving users and others?

The NHS DPP User Involvement Group was established in June, bringing together people at high risk of Type 2 diabetes to ensure that their needs and experiences are at the heart of the programme design and implementation. Facilitated by Diabetes UK, the group provides regular feedback to the management team on referral options, programme content and messaging.

led unhealthy lifestyles for a number of years. A long-term approach is required, with support continuing during the maintenance phase of behaviour change.

- Create the right environment – humour and camaraderie have been important in keeping participants engaged. We try to help participants feel they won't be 'told off' for having a bad week.
- Share responsibility – we develop individual plans for participants, encouraging

responsibility for monitoring and making changes to their diet and activity levels.

Following the success of the pilot we've extended the programme, and hope to support up to 1,000 people each year. We've rolled it out across County Durham, and we'll be working with other providers who can offer programmes of different length and levels of intensity within the same evaluation and quality assurance framework. We're contributing to the learning for the national

programme through a number of adaptations to the service, including:

- a Just Beat It! Diabetes Champion programme
- a new component of the programme aimed at men, based on football.
- improved case finding of people at risk.

We hope to learn more about the most effective interventions, as well as how to target those most at risk. We're excited at the potential to expand the reach and impact of Just Beat It! as it makes a difference to those who take part.

Success story

Dorothy Hall, 60, joined Just Beat It! in April. She was shocked when she was told that she was at high risk of developing Type 2 diabetes at a free health screening event. She didn't think diabetes was a concern as her BMI was just in the healthy range and the condition doesn't run in her family. Dorothy didn't realise that her age and larger than average waist increased her risk.

She credits the programme for helping her to completely change her diet and lifestyle. She now eats plenty of fresh vegetables and fruit, has reduced her portion sizes and eats far less sugary foods. As well as attending a weekly exercise class, she was also given a free pedometer, and walks 8,000 steps every day. She has lost 3kg, and 10cm off her waist. Her efforts have also spurred on her husband to make healthy changes to his diet and lifestyle in recognition of his family history of Type 2 diabetes.

She says: "Being told that I was at high risk of developing Type 2 diabetes was a big wake-up call. If I'm honest I didn't really always watch what I eat, and I probably eat sugary foods far too often. My sister-in-law has suffered badly with Type 2 diabetes, and sadly has had some toes amputated due to the condition and I didn't want to be in the same position, so I knew I had to do something about my lifestyle, particularly about the weight I carried around my waist.

"Getting support from Just Beat It! was great. Changing your diet and lifestyle isn't easy, so it was really good to have someone to turn to for advice and support. Meeting others in the same situation was great. We provided each other with support and encouragement.

"I want to spread awareness of Type 2 diabetes. I don't think people are really aware of the damage they cause to themselves through poor diet and lifestyle choices. There should be more support to help people eat more healthily, and be more active, which is why I think the NHS Diabetes Prevention Programme is a great initiative."



Physical activity can keep Type 2 diabetes at bay

A consultation on the draft service specification over the summer generated feedback from the public, providers, clinicians and commissioners – as well as a range of stakeholders – and these responses are currently being reviewed. Other opportunities for stakeholders to inform the programme will be made available as the programme develops.

To stay involved, sign up by visiting www.england.nhs.uk/ndpp or email diabetesprevention@phe.gov.uk

How will you know it's worked?

The NDPP has the potential to be a truly game-changing programme, reducing pressure on the system, helping people

regain better health, and delay or stop a diagnosis of Type 2 diabetes. We are developing an evaluation framework to ensure we can measure the impact – on individual health, population health and on the wider system – and we look forward to working with providers, commissioners, clinicians and participants to ensure the programme reaches its full potential.

REFERENCES

- 1 National Cardiovascular Intelligence Network (NCVIN) (2015). NHS Diabetes Prevention Programme (NHS DPP) Non-diabetic hyperglycaemia.
- 2 Public Health England (2015). A systematic review and meta-analysis assessing the effectiveness of pragmatic lifestyle interventions for the prevention of Type 2 diabetes mellitus in routine practice. See www.england.nhs.uk/ndpp

Working together to signpost people at risk to support

With six million people at high risk of Type 2 diabetes in the UK, and 11.5 million at increased risk, helping people understand this risk and the ways they could lower it is vital

Diabetes UK provides an annual community roadshow, taking information and advice about Type 2 diabetes risk factors into cities and shopping centres around the UK. Using Diabetes UK's Know Your Risk questionnaire (a validated tool developed by the University of Leicester and Leicester Universities Trust), trained volunteers help passers-by find out their risk for the next 10 years and signpost those at moderate and high risk to their GP practice for follow-up testing and support. A trained dietitian is on hand at the event to offer advice about healthy eating to lower Type 2 diabetes risk. There is also free fruit available and a physical activity zone to

encourage people to think about eating well and being more active.

Over the last three years, a partnership between Diabetes UK and Wiltshire Council has helped over 1,400 people in Wiltshire find out their risk and what they can do about it. In Wiltshire, the partnership Know Your Risk Roadshow also involved Wiltshire Council Health Trainers, who were on hand to signpost attendees directly onto local services, making it easier for them to take the next step. Through the 20 events that have taken place across the county, in places such as Trowbridge, Chippenham and Salisbury, many people have been supported to take action to

reduce their risk of Type 2 diabetes. Diabetes UK's evaluation of the project in 2014 showed that nine out of 10 attendees would recommend visiting a roadshow to friends and family, with over half of them saying they had made positive steps to change their lifestyle since attending.

John Goodall, Consultant in Public Health at Wiltshire Council said: "We have enjoyed a close working relationship with Diabetes UK to improve local awareness of Type 2 diabetes and what people can do to reduce their risk of developing it. As a result of the roadshows, nearly 800 people at higher risk have been referred to their

GP practice or other services to ensure they are properly supported."

UK Regional Manager, Claire Gordon, said: "Being commissioned by Wiltshire Council and with the help of local health trainers means that we can direct people to the local support services and programmes in the area both for people already diagnosed and those looking to reduce their risk."



PHOTOS: THINKSTOCK/DIABETES UK