

Let's Prevent Diabetes

Diabetes affects 2.5 million of us in the UK with a further 500,000 people unaware they have the condition. But have you heard of pre-diabetes? Like diabetes, pre-diabetes is a condition where the amount of glucose in the blood is too high, as the body cannot use it properly. People with pre-diabetes have an increased risk of developing Type 2 diabetes and heart disease, but crucially, if you are diagnosed with pre-diabetes you can take steps to prevent or delay these conditions.

A cluster, randomised, controlled study based in Leicestershire called Let's Prevent Diabetes is reaching out to people with pre-diabetes, using a group educational programme. Some patients who take part in the study receive the care already provided by their practice for pre-diabetes while others are invited to attend the educational programme. This means the impact of both systems of care can be assessed.

The content of the educational session is based on a DESMOND (Diabetes Education Self Management for new and ONgoing Diabetes) programme which is a validated, recognised curriculum that supports the patient to take responsibility for their health and develop the skills needed to self manage their condition.

The course takes place over a single day or two half days, and takes four half days if using an interpreter. It is not a classroom environment, rather participants receive the information and support they need to understand how their bodies have been

affected by pre-diabetes and the lifestyle changes they need to make to prevent the development of Type 2 diabetes. This can be in relation to the exercise they take or the food they eat. By the end of the session, participants create their own action plan detailing what they aim to change and how they plan to change it.

Following the session, the study team contacts all participants for a clinical follow up at six, 12, 24 and 36 months. For participants in the educational arm of the study, research nurses contact them every three months to offer support and encouragement with further action planning to reduce their risk of diabetes if necessary.

So far, recruitment to Let's Prevent Diabetes is going well. The study team have recruited 39 out of 44 practices and 414 patients out of a target of 748: well on their way to meeting their goals by 31 December 2010. At the heart of this success lies a close and effective collaboration between the Primary Care Research Network East Midlands and

South Yorkshire (PCRN EMSY) and South East Midlands Diabetes Research Network (SEM DRN).

Historically, the Diabetes Research Network (DRN) recruited patients through secondary care in hospital clinics. However, as this care moved from secondary to primary care, the way in which the DRN recruited patients had to change. As a result, SEM DRN was already developing links with GP practices when the PCRN was introduced in 2007. This presented opportunities for SEM DRN and PCRN EMSY to develop a collaborative working model. Janice Strand, Locality Manager for the Leicestershire, Northampton and Rutland (LNR) hub of PCRN EMSY says,

"In 2007 we realised there was a risk that the two Research Networks would overburden GP practices in the area by attempting to engage the same practices in research studies. Since this had the potential to waste Network resources and irritate GPs it stood to reason that the two Networks should start collaborating on appropriate

Educator Alison Dunkley (left) uses food models to help study participants understand pre-diabetes



studies. As it happened, Stephanie Goldby, the DRN Project Lead for Let's Prevent Diabetes and I had worked alongside each other in the clinical research community for over ten years. We had a strong relationship and this held us in good stead when developing clear lines of communication between our two teams."

For Let's Prevent Diabetes, Janice and the LNR Hub staff assisted the SEM DRN to identify practices that had a particular interest in diabetes. If the site expresses an interest the LNR hub then arrange a study-set-up meeting that brings the DRN, PCRN and site representatives together. The meeting establishes whether the practice is in a position to take part in the study and the ways in which DRN and PCRN can provide support.

If a practice signs up to the study, the DRN study team advise the site how to use their data to identify the patients most at risk of diabetes. A letter from the GP then goes out to the prospective participant with information about the study and a stamp addressed envelope for their reply. The response goes directly to the DRN study team who organise screening for the patient.

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For Stephanie Goldby, PCRN support has been invaluable to the recruitment drive, with the experience proving particularly useful in informing DRN practice for commercial studies,

"Let's Prevent Diabetes is a non commercial study but what started as a new way of working has now been replicated in commercial studies across the Network. So, instead of engaging clinicians independently, we co-adopt the study with the PCRN and use their expertise to target diabetes-friendly sites and arrange set-up meetings. There are practices we have worked with



The Let's Prevent Diabetes study team

for many years, but PCRN give us a broader knowledge of practices across our region and the ability to engage more of them in our studies. But it is a two way process and we both benefit from the collaboration. If surgeries come to us independently, we can then advise them of the support PCRN can provide and point them in their direction for more information."

Let's Prevent Diabetes is attempting to become the first intervention in the UK that demonstrates that a structured educational programme reduces the number of people with pre-diabetes who progress to Type 2 diabetes. There has been a great deal of evidence from around the world that suggests such interventions can be effective. For example, a study in Finland during the 1970s reduced the progression rate by 58%. However, this success has never been replicated in the UK.

The Principal Investigator of Let's Prevent Diabetes is Melanie J Davies, Professor of Diabetes Medicine and Cardiovascular Sciences at the University of Leicester. She believes this is because the UK has never produced a study tailored to its own population,

"The type of intervention used in Finland has not worked in the UK because the nature of the population is completely different. People are really active in Finland and so the government could use lifestyle to address pre-diabetes progression. However, the UK is, generally speaking, more sedentary and this form of intervention has not worked. So, what we've tried to do with Let's Prevent is produce a pragmatic but effective educational course that meets the needs of our communities."

What is unique about Let's Prevent Diabetes is the extent to which DRN have tailored their intervention to meet the needs of the Leicestershire population, a multi-ethnic community with a large number of South Asian, Gujarati-speaking residents who are susceptible to diabetes. Jacqui Troughton, Curriculum Development and Educator Training Lead for the study, believes preparation and thorough piloting of the intervention was key to producing effective learning materials,

"We worked hard to produce an adaptable session and we used the pilot phases to ensure it was culturally appropriate for the communities affected by pre-diabetes in Leicestershire. A good example of how the pilot informed the study was in relation to food messages. We had developed many activities using food models to promote healthier eating choices, however participants of South Asian origin advised us that there were not enough food models that promoted positive messages about food from their culture. As a result we featured more traditional South Asian fruit and vegetables such as mango, star fruit and okra in our food models."

Professor Davies believes it is this attention to detail, coupled with the tone of the programme that makes the intervention so effective,

"People have to understand what the threat of pre-diabetes is, so we can dispel the popular myths that exist. Some people overestimate the dangers of diabetes and others underestimate it. If people aren't informed about what the issue is they can't be expected to help themselves and we can't be expected to help them. DESMOND is about delivering this news and then exploring exactly what it is and providing people with the information and opportunity to do something about it. Simply put, Let's Prevent Diabetes, with the support of the DRN and PCRN, is empowering people and helping to improve public health."

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