

Supplementary document 1 Presentation of progression of diabetes integrated care to CCG 2018



EARLY RESULTS IN NORTH DEVON DEMONSTRATE EFFECTIVENESS OF DIABETES TRANSFORMATION FUNDING

Summary

North Devon has seen a significant reduction in diabetes related harm after using Diabetes Transformation Funding to test the effectiveness of a new integrated care model that was co-designed with people who have diabetes.

After listening to what matters to people with diabetes, the team from across the diabetes pathway worked in partnership to deliver what was needed.

Personalised care-planning, underpinned by motivational interviewing has been built into diabetes reviews and a link nurse programme delivers improved quality of care for housebound patients.

Transformation funding enabled specialists in diabetes and footcare to spend time out of hospital providing education and support in GP practices and community wellbeing events. Funding for extra podiatrists to carry out this educational role was intended to ensure people whose feet were at risk were referred earlier into the foot protection service. This is exactly what happened – there has been an over 50% increase in referrals into podiatry and due to the increased staffing capability waiting times have actually gone down. The foot amputation rate is also now the lowest in the county having consistently been the highest.

North Devon has been a pioneer in building community systems infrastructure with statutory and voluntary partners addressing wider determinants of health and wellbeing. Transformation funds were also used to build sustainable links with community wellbeing services and the voluntary sector where health inequalities can be best addressed. Recognising the growing gap in health inequalities, the team is next hoping to test out more flexible approaches to working with individuals who are less engaged with diabetes care as these are the ones that are likely to have the worst health outcomes.

Background

North Devon has a population of around 162,000 people and a slightly higher than average incidence of diabetes at 7.5%. However, variation exists with areas of affluence alongside pockets of high deprivation and there are some stark health inequalities with a life expectancy gap of 14.6 years¹.

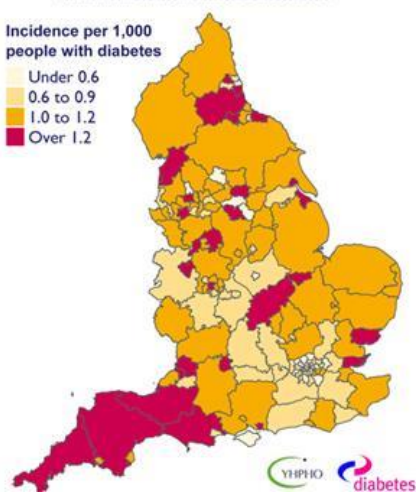
The South West has a higher than national rate of diabetes-related limb amputations, an indicator of poorly controlled diabetes. For the past decade, North Devon consistently had the highest rate in Devon.

Major amputation rates in people with diabetes

Sources: The Quality and Outcomes Framework (QOF) 2007/08 to 2009/10, Hospital Episode Statistics (HES) 2007/08 to 2009/10, The NHS Information Centre for health and social care

Incidence per 1,000 people with diabetes

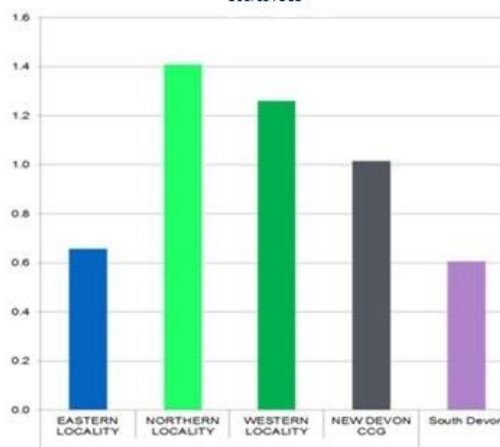
- Under 0.6
- 0.6 to 0.9
- 1.0 to 1.2
- Over 1.2



One year Incidence rate of Major Amputations (2014/15 – 2016/17)

per 1000 Diabetic Patients (as per QOF Register 2015)

– same methodology as used by YPHO in Diabetic Footcare Profiles
Source : SUS



There was recognition from clinicians that local pathways contained inefficiencies, duplications and missed opportunities for learning and effective communication between primary and secondary care.

STOP, LISTEN and LOOK

A small team took the lead in tackling these issues together. The group included representatives from primary care, diabetes specialists, podiatrists, dietitians, psychologists, commissioners and patients. The first step was to understand what works well, what doesn't and whether we were doing what matters. No suggestions at this stage were made about solutions.

We engaged people with diabetes, holding two patient focus meetings, 22 individual patient interviews, 163 patient questionnaires and attending 3 local diabetes UK meetings. We

¹ <http://www.devonhealthandwellbeing.org.uk/jsna/overview/archive/starting-well/life-expectancy-at-birth/> Table 8.2, Shortest and longest average life expectancy in years (LE) at birth by ward, Devon local authority districts, 2009 - 2013.

engaged with clinicians through eight GP questionnaires, three GP forums and four primary care workshops with 72 attending from 13 practices.

What people with diabetes said

People with diabetes told us that family support was one of the most important factors in managing their health; that one of the biggest struggles was maintaining a healthy lifestyle yet there seemed to be little out there to help them with the motivation and tools to do that; some felt judged by doctors and nurses because they hadn't improved their weight or targets; there was not enough recognition and support for the psychological impact of diabetes and they felt particularly overwhelmed when diabetes was only one of the long term conditions they were trying to manage. There was also a worrying variation in their experience of diabetes diagnosis and care depending on where they lived and which practice they attended.

Nearly all valued their relationship and review with their practice nurse but that this wasn't frequent enough to help them with day to day questions and those who attended peer support groups found it to be a lifeline.

What clinicians said

The diabetes specialist team recognised that they only saw a very small proportion of people with diabetes so their impact was limited with the majority of diabetes care and oversight being in the community. They were frustrated at having limited opportunities to offer advice or input into the wider services or prevention strategy.

GPs said they felt de-skilled as the practice nurses managed most of their diabetes care and they were less confident about prescribing now that there were such a wide variety of treatment alternatives. GPs and practice nurses said they would welcome increased opportunities to consult members of the specialist team about individual patients and also raised concerns about house-bound patients who they felt weren't receiving the same standard of care due to split responsibilities. There was general consensus that they needed better tools to help patients make needed lifestyle changes.

Podiatrists and vascular surgeons were concerned that people whose feet were at risk of ulceration were not being referred soon enough and that people were not as aware of the risks as they should be. All clinicians recognised the service would work better if it was joined up across the providers with more emphasis on supporting 'people' with diabetes rather than concentrating on their feet, eyes or HbA1c results. This was echoed by people with diabetes.

TEST AND RESPOND

Diabetes Transformation Funding² enabled the team to begin to test whether employing more staff would help in addressing some of the issues identified as well as enabling some dedicated project support.

Foot care

We wanted to test the hypothesis that if practice linked podiatrists were employed to work more closely with practices more people would be referred at the right time to the foot protection service. It was a two-fold approach of increasing understanding of patients and healthcare providers in the importance of foot checks, how to correctly assess risk and refer accordingly, followed by increasing the capacity of community podiatry to respond to the increase in referrals.

These podiatrists have been working with their practice cluster, providing education, shadowing and joint visits. By testing new ways of working together we get a better understanding of the detail of what can go wrong. In one practice, open discussion revealed that foot checks were not being carried out consistently. The podiatrist trained the HCAs to carry out this role meaning more time was now allocated to this important check. Another discovery was that practice nurses weren't always sure if the referrals they made to podiatry were appropriate, making them hesitate to refer. A letter is now sent after each referral comparing the level of risk found by the podiatrist to that found by the practice. This acts as an educational tool and reduces delayed referrals.

The multi-disciplinary footcare team (MDFT) tested whether having a weekly forum to discuss patients of concern without bringing them into hospital would mean those at higher risk of amputation could be triaged sooner. North Devon is a predominantly rural geography and practice nurses explained that many in the farming community would not make appointments to have sores on their feet checked until problems were advanced. This 'virtual' forum is an opportunity to discuss and monitor patients and arrange appropriate investigations prior to face to face contact in the clinic. Using Transformation Funds, podiatrists were given iPads to share photographs of feet which could be triaged without patients having to travel long distances.

Specialist support to primary care

The team wanted to understand the best way to provide the specialist diabetes support that GPs and practice nurses had said would help, within the workforce constraints that funding would not resolve. A programme of support that would be beneficial but practical and

² Bringing together the plans of its four localities, Devon STP was awarded Diabetes Transformation Funding in June 2017. The Northern Locality was allocated c. £700k for two years to improve treatment targets and reduce amputations.

achievable with the existing workforce was co-designed and tested with the diabetes consultant, diabetes specialist nurse and podiatrist in four GP practices across the locality. Practices are now scheduled to receive an annual support visit which brings together the practice team with the community and specialist team. During the visit they review practice processes and discuss up to ten patients that the practice has identified and a plan of action is jointly agreed. GPs felt that their knowledge and tools to provide dietary advice was lacking³ so transformation funds have enabled these visits to now include a dietitian to help inform and equip practice staff to have discussions about diet and nutrition with their patients.

The discussion around practice processes has proven to be as valuable as the patient discussions as it has highlighted variation in delivery both between practices and within them. It is only variation in *quality* of practice that the team has been interested in, rather than the actual process which can vary according to patient list size or workforce as long as those carrying out the processes have the right clinical competencies. The team has been able to collect best practice examples from these visits and share them resulting in a body of learning that increases with each visit.

A template has been co-produced that can be added to all practice IT systems to deliver a consistent *and* personalised approach to agreeing a plan of action. After their diabetes review, people are able to take away these care plans that include graphs of their test results and the actions they've agreed to take.

In addition to the practice visits, the specialist team have tailored their communication channels to be available to discuss individual patients, introducing hotlines and email advice lines.

Personalised, place-based support

An issue that concerned both people with diabetes and their primary care team was how to make the lifestyle changes they understood to be necessary. It disheartened people that they didn't have the tools they needed to sustain changes to their diet and activity levels and it frustrated healthcare providers that they weren't in a position to provide the necessary support.

There was a strong view from the clinical workshops that funding should not be used to put a new lifestyle support service in place that may not be sustainable, therefore tools would be provided to existing clinicians to work in partnership with individuals to make lifestyle changes. This begins with conversations with individuals to understand 'what matters' to them, their motivation level and preferences as well as the circumstances they live in that either help or hinder them. The hypothesis was that if diabetes reviews had three broad

³ NHS Long Term Plan, Chapter 2, 2.19

themes: Me, My Circumstances and My Diabetes, then a more personalised plan could be agreed together that would be more likely to succeed⁴.

To embed this into working practice, the template for diabetes appointments includes this feature which promotes shared responsibility for health, a feature of the NHS Long Term Plan.⁵

An annual programme of training is now available to all practices to have motivational interviewing and lifestyle coaching by psychology and health coach professionals.

The next stage is to have options available to suit individual needs and preferences, such as education resources tailored to learning styles and introductions to local activities that interest the person and fit with their schedules.

Even before engagement took place, it was clear that people in North Devon prefer to stay local. There is a successful Diabetes UK group that runs in the largest town and those who attend it are effusive about how much it helps them manage their diabetes. However, very few people attend who do not live local to the group therefore 'place-based' opportunities needed to be encouraged. A variety of community activities have been tested such as exercise groups; practice support; peer support groups and 'Diabetes Wellbeing' events. These events bring together diabetes specialists, practice nurses, podiatrists, dietitians, psychologists, health, pharmacists and other wellbeing services and the local Diabetes UK group. Detailed local knowledge and links were important and transformation funds allowed the team to test working with a community partnership organisation to bring the local elements together. Feedback from the 600+ people who attended was that they valued the opportunity to ask questions of clinicians they would not normally have access to and find out what's available in their community. The events have generated new referrals and resulted in a further peer support group. There has been positive feedback from clinical staff and four wellbeing events are now scheduled to rotate across communities annually.

Not all the place-based tests have proven successful – part of the cycle of learning process is to understand whether the whole intervention was not wanted or whether certain aspects that could be tweaked and re-tested.

Equality of care at home

Having listened to concerns that housebound patients were not receiving the same quality of care as those who could attend appointments, the team tried to find out more. It transpired that there was no consistent approach across the locality. Not everyone in the process had the correct competencies and communication between providers was not

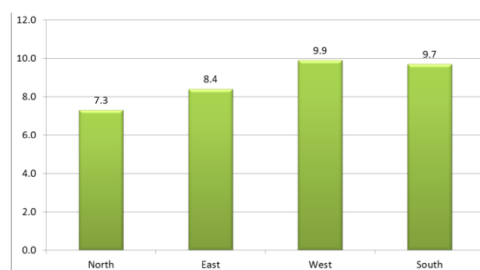
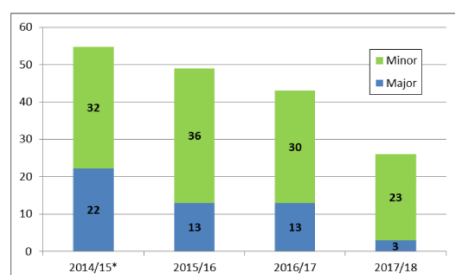
⁴ Developed with EasierInc

⁵ NHS Long Term Plan, Chapter 1, 1.38.

working well. In response, the diabetes specialist nurses have invited all nurses who care for people at home to become diabetes link nurses, with enhanced training in diabetes. 25 nurses from primary care, community nursing and care homes have been trained to undertake this role. Communication links are strengthened between primary and community nurses and their GPs during annual support visits.

PROGRAMME OUTCOMES

To understand whether these interventions are succeeding, the team is monitoring whether fewer people need treatment for diabetes related complications. Early results are encouraging.



Diabetes Lower limb amputation rates in North Devon Avg. length of stay for people admitted with active foot disease (days) 2018

There are many factors that will have contributed to this improvement from all parts of the pathway from patient education to improving communication between primary care, podiatry and MDFT as well improvements to the vascular pathway and network arrangement. It is difficult to identify direct cause-effect but since the start of the programme there has been:

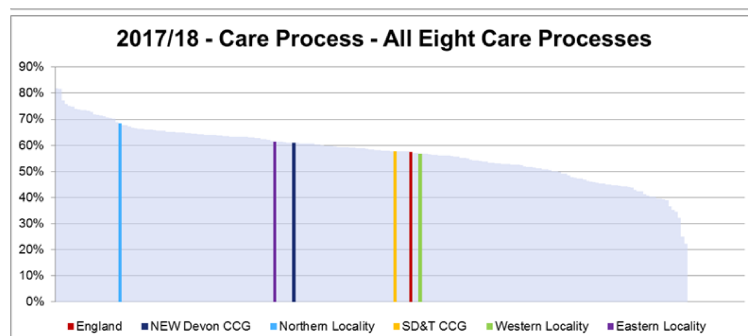
- Over 50% increase in referrals to podiatry for people with diabetes
- Despite this increase, average waits have reduced by 10%

Prevalence of diabetes in North Devon has increased from 7.1% to 7.5% yet

- emergency admission into hospital for people with diabetes has reduced from 16% to 13%
- major amputations have dropped to 0.6 per 1000, a reduction of 77%, compared to 0.8 per 1000 in England⁶

Recent figures from the National Diabetes Audit show that there has been an improvement in all 8 care processes completed in primary care from 51.2% to 68.3% in North Devon compared to the England average of 57.6%. In particular there has been a 15% increase in foot surveillance which brings us slightly above the England average.

⁶ Public Health England, Diabetes Footcare Profile – 2011/12 – 2016/17 May 2018



Although we have seen a small improvement in HbA1c and cholesterol levels, we recognise a lot more work needs to be done to improve treatment targets which still sit below national average.

Conclusion

Diabetes Transformation Funding allowed for new working practices to be tested and evaluated. Because they were co-designed with those who will be delivering them based on the feedback of those who use them, the team is confident that they are moving in the right direction. The co-design framework also builds trust across the system. In the words of one of our GPs *"This project has done more for the relationship between primary care and secondary care in North Devon than any other project in the last 10 years"*.

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Supplementary document 2 The North Devon District integrated diabetes service patient engagement report to CCG 2018

The North Devon Integrated Diabetes project team is engaging with patients throughout the development of the new service.

Patients have been engaged in four ways, being involved in:

1. Project Team meetings
2. Patient Focus group meetings
3. Individual patient engagement through:
 - Detailed patient interviews
 - Patient questionnaires
4. Project assurance by means of the local Diabetes UK group booked in January 2018

This report outlines the result of that engagement that has taken place from January to August 2017.

We carried out a survey with the North Devon Diabetes Group on 5th & 19th December with 28 people with diabetes. Whilst some people described excellent care and clear points of contact, when we asked 'What 3 aspects of your current diabetes care would you change to improve it?' the most popular responses were:

- More frequent appointments with more time to ask questions and checks such as footcare (9 responses)
- Better information and education, sometimes given varying advice (7 responses)
- Easier access and knowing who to approach to help with specific advice such as diet, feet (7 responses)

When asked what 3 aspects of your current diabetes care would you keep because it works well?

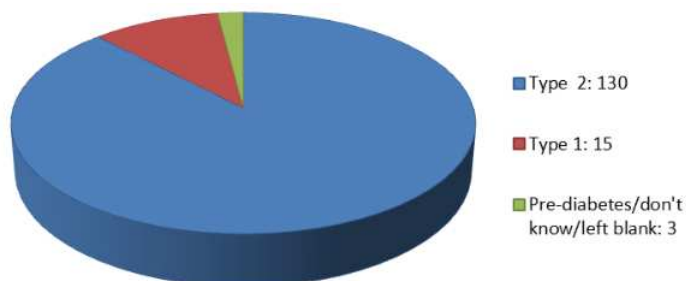
- Six monthly review (14 responses)
- Retinal screening and eye check (4 responses)
- Annual appt with consultant at NDDH
- GP contact (2 responses)
- A good practice nurse (2 responses)
- Diabetes group

Patient questionnaires

Questionnaires, based on the responses from the 22 patient interviews, were given to patients by practice nurses and diabetes specialist nurses during July and August 2017.

Type of diabetes

148 questionnaires were returned, the vast majority by people with Type 2 diabetes (see figure 1)



There were no discernible differences between the responses for Type 1 & Type 2 differences except in the answers to the following questions:

- In the last 3 months, has anything worried you about your diabetes:

8 out of 15 people with Type 1 diabetes said yes (53% had worries about diabetes in last 3 months)

89 out of 130 people with Type 2 diabetes said no (32% had worries about diabetes in last 3 months)

- In the last 3 months, have you ever been unsure about what to do with regard to your diabetes?

2 out of 15 people with Type 1 diabetes said yes (13% were unsure what to do in last 3 months)

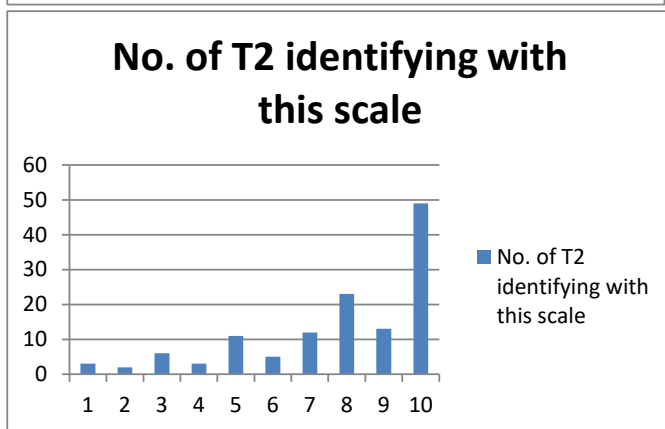
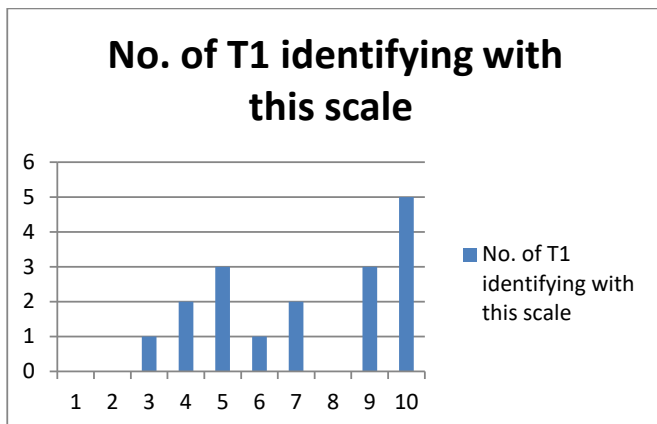
95 out of 130 people with Type 2 diabetes said no (27% were unsure what to do in the last 3 months)

The responses to the questions below have therefore not been split by the type of diabetes the person has.

Questions & Responses

Question 1

How easy is it for you to manage your health (score 1-10)?



Reasons given for score for Type 1 & Type 2 combined (as no discernible difference between the qualitative responses given):

Complications x 1

Information x 2

“More help and details from diabetic nursing team – information”

“Because I understand what being diabetic means keep my levels low for long term better health”

Family x 2

“Problems with my partner who has been in hospital”

Self-management/lifestyle x 2

Specialists

- Continued access to specialist Doctor, Nurse and Dietician, I consistently fail to meet NICE guidelines H6A/c 48MMol/L BG lev1 5-7. Access to best technology.

Uncertainty

- Guesswork in how much insulin to take; Carb training (Dafne Course).

Diet/weight/exercise x 6

- **poor diabetic control, very over weight**

Struggle to understand food labelling

- **I have food issues ie comfort eat**

Illness

- I am able to manage my diabetes well but sometimes my condition can be a little bit unstable if I feel poorly etc but this doesn't happen often, and I know how to deal with these situation; I feel I am in good health I eat well and exercise

Diabetes nurses

- Listening to diabetic nurses and do as they say eating sensibly.

Memory x 2

- To get a 10 it would take ... a good memory.

Other health conditions x 2

- Vascular Dementia and Alzheimer's

- PMR & fibromyalgia, depression

- - Tired, depressed, change in diet

Struggle with levels x 2

- Unable to keep glucose levels low

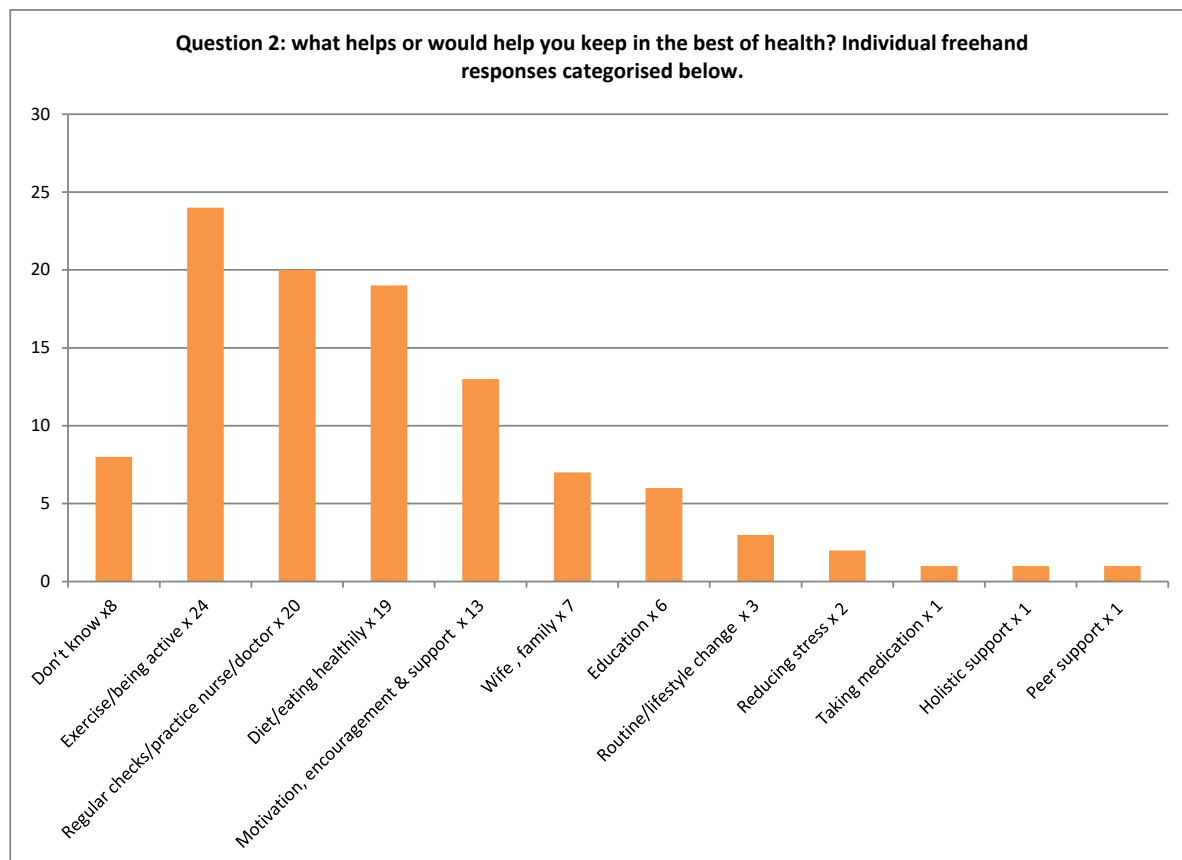
keeping sugar levels down despite reducing carbs

Lack of support x 1

"Lack of support"

Question 2

What helps or would help you keep in the best of health?



These are some of the comments that were provided in answer to Question 2:

Diet/eating healthily x 19

Lose weight (not easy)

Diet would make me feel better no picking in-between meals

Advice about diet

List of foods should and shouldn't eat

Not to feel hungry all the time

Still waiting for hospital to contact me regarding appointment to go through diets etc. and info about Diabetes (over a year waiting)

A good cook

Feet hard skin suffer a lot from weight. Losing fat around stomach area finding it very hard and upsetting.

Regular meals not too much sweet stuff.

Exercise/being active (x 24)

As long as I am fit enough to get exercise should do the trick.

More exercise once knee better.

Need to walk more.

Stay as active and 'normal' as possible

Giving myself more time to exercise more

More movement, but difficult due to pain

Motivation, encouragement & support x 13

Perhaps a fitness type coach

Need plenty of support and bullying

Having more will power than a goldfish.

I think more threats, pictures of bits being removed due to the illness would help, a bit more shock and awe!

Support and help to meet the NICE target.

Practice checks x 20

I appreciate the twice-a-year check-up.

Have several appointments at clinic monitoring all health issues.

An annual review in my birthday month.

I am reviewed every 6 months by (practice nurse) If I have any queries, I feel I can discuss them with her.

I am quite competitive and need to 'beat' my previous readings.

More foot checks

Having more people like (practice nurse). Best care I have ever received.

Help with stress x 2

To be able to be stress free so I can concentrate on my health

Relaxation techniques

Routine/lifestyle change x 3

Less busy life.

Routine that fits with lifestyle. Plus lifestyle changes.

Holistic support x 1

Having support from knowledgeable staff who understand the whole 'me' and my health issues.

Not just pat answers.

Education/information x 6

Visits from diabetic teams in schools and colleges i.e. knowledge in early life.

Being able to access information quickly, either through a book or being able someone to speak to

Daphne course.

Peer support x 1

Share experience with other similar people. Not get too hung up on where I am. To know where I am on the scale.

Wife , family x 7

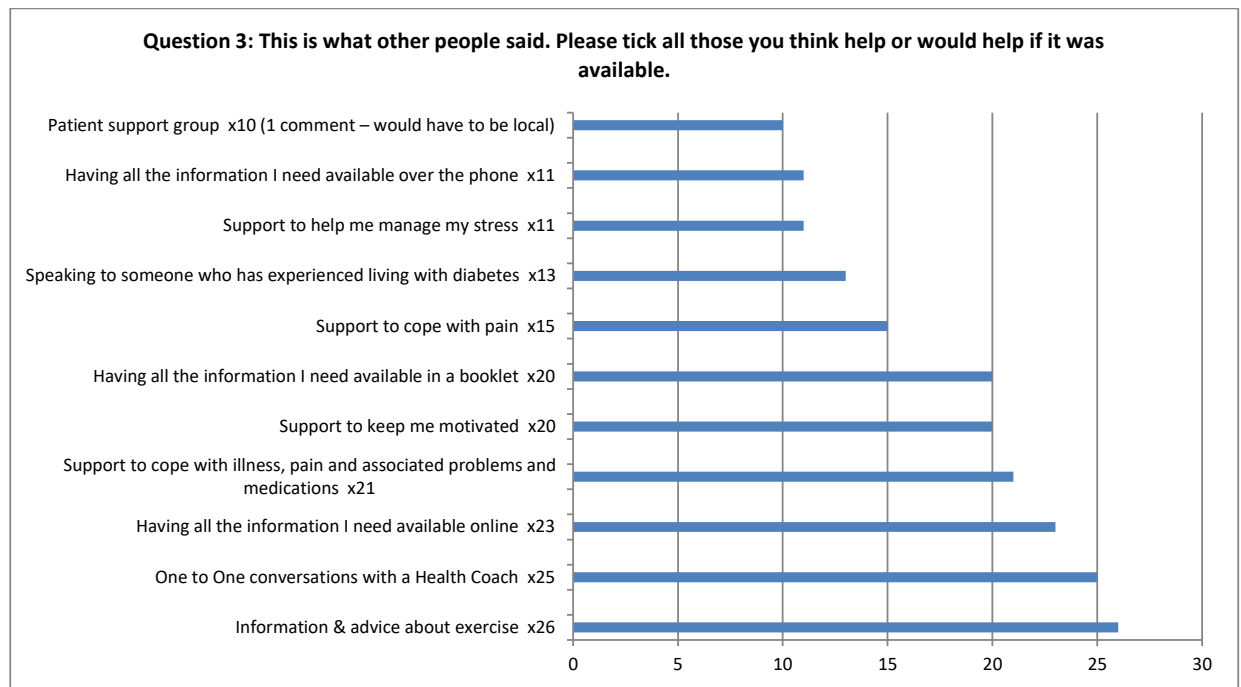
My wife and with her pushing me more.

Family and friends keeping me in check.

A partner who would exercise or go walking with me

Question 3

This is what other people said. Please tick all those you think help or would help if it was available.



Other conditions x 3 (more what makes it hard)

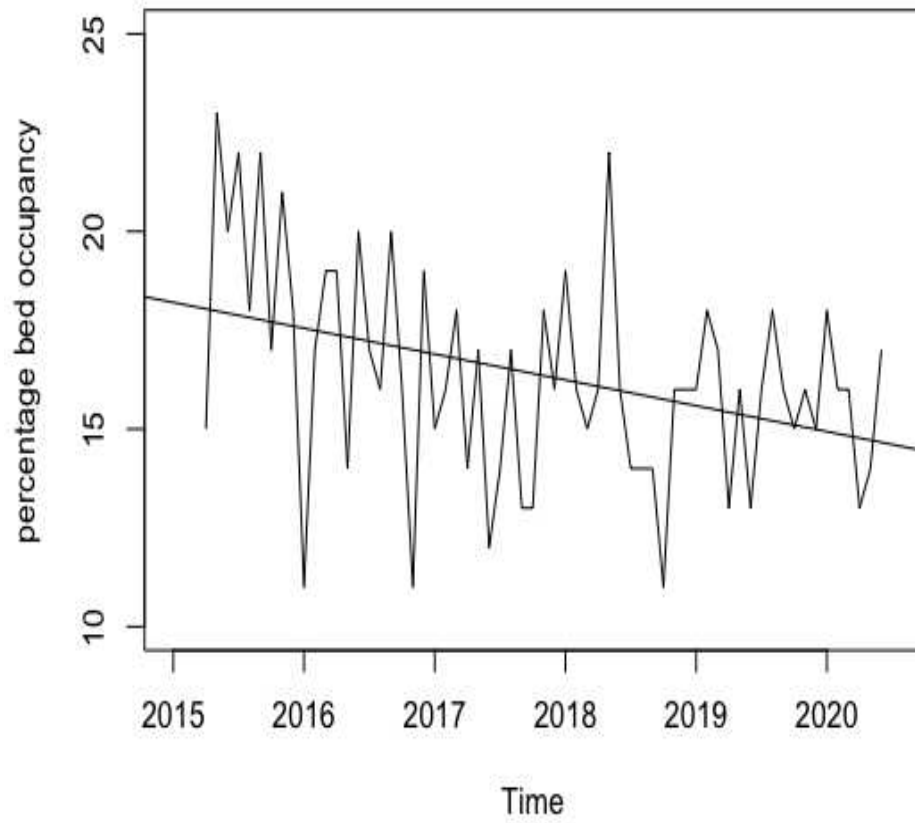
I don't think that I can get any healthier given my underlying condition of auto-immune hepatitis.

To not have the conditions I have to enable me to be more active

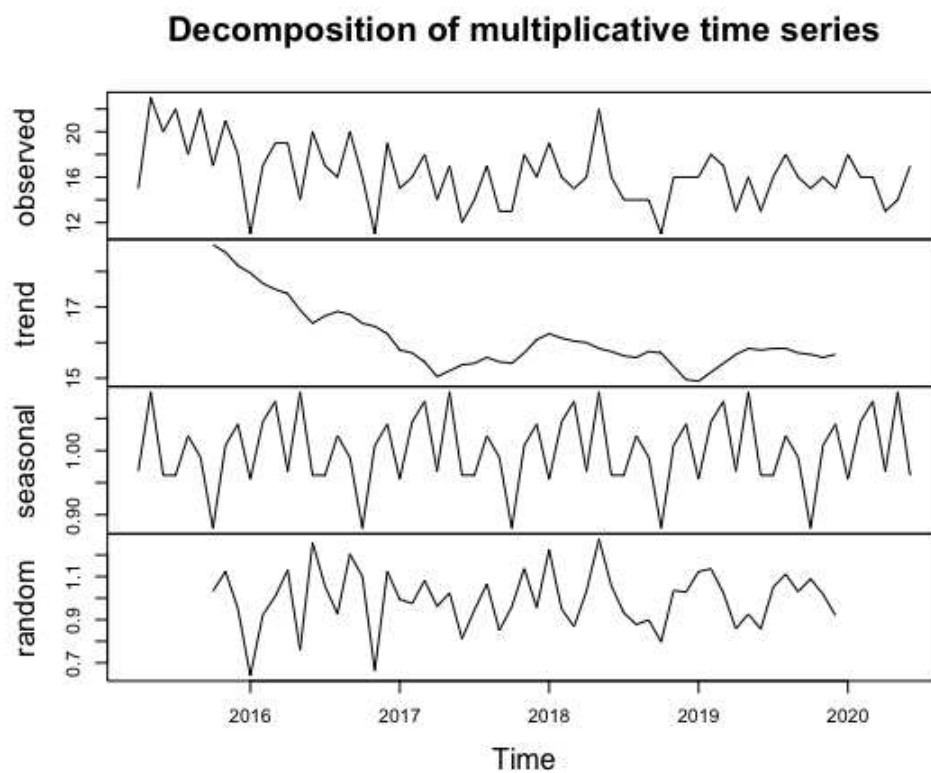
Not a lot more can help with multiple health problems

Supplementary table 1 Comments most commonly expressed by General Practitioners about the diabetes care during development of the integrated care programme

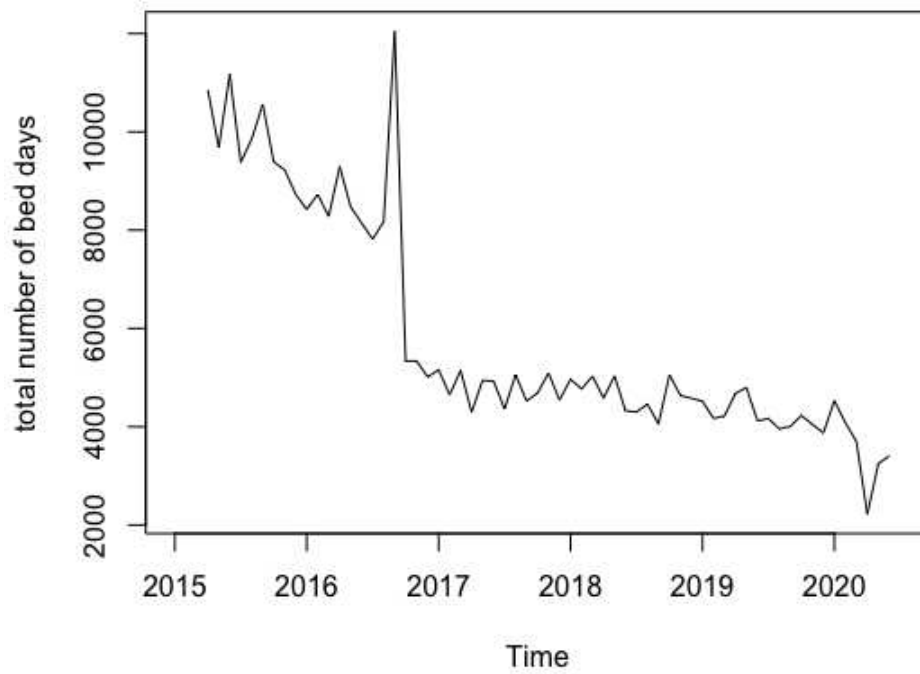
Better deal for patients	Knowledge base & Education	Holistic support	Aspirations
“A better understanding of the DM foot pathway and rapid access into that could also perhaps be a little smoother/clearer”	“We GPs and our patients will need to call more and more on specialist skills as artificial barriers (between primary and secondary care) are removed and more care is delivered in the community”	“The concept of Primary and Secondary care is out dated as we simply serve different parts of the same pathway”	“I see the benefits of IDS as being truly shared care with easy, safe communication between clinicians and patients. I'd like the diabetic service to be a community service using a community shared record, not a hospital based service with communication via letters”.
I feel we have quite a disjointed service in Devon (not only in diabetes). Developing some guidelines jointly would be sensible.	“It's a shame that we should need to send patients to (hospital) for insulin initiation injectables type 2 therapy etc as they often have a very good, enduring relationship at the practice and I'm sure we could do it well with more support”	“Type 2 diabetes is a consequence of life style choice. Although prescribing drugs is easy life style change is more appropriate”	“I see diabetes care as part of the challenge to demedicalise people and get them to take responsibility for their own health, they will become well motivated, self-determining individuals rather than passive, ill-informed patients. The need is for lifestyle gurus, educationalists and then an IDS for those people who require medicalization”
“It's ages since I worked in hospital so I wouldn't be so bold (or stupid) to assume I know what a secondary care diabetic service currently does but I've often wondered why outpatient clinics have to be in hospitals, perhaps I'm missing something”	“GPs as a group have probably become quite deskilled as a result of our excellent nurses and would value more education and instruction. Perhaps a helpline or rapid advice service might be helpful”	“The risk is of doing nothing, do nothing and diabetes will consume the NHS and social care budgets. This would be great news for the drug companies	I think QOF may be scrapped- would be good to have something good, locally worked up and relevant to replace it, rather than something imposed- because I think they will still want us to demonstrate good chronic disease management in some form.



Supplementary figure 1. Percentage of hospital bed days occupied by persons with diabetes through time with regression line



Supplementary figure 2. Decomposition of time series of hospital bed days occupied by persons with diabetes



Supplementary figure 3. Total number of bed days occupied by persons with diabetes



Supplementary figure 4 Feedback from service users after well-being events in 2018

Patient's Name	Click here to enter text.
NHS Number	Click here to enter text.
Date	
Clinicians Name	Click here to enter text.
Contact Details	Click here to enter text.

Situation	Reason for referral? Click here to enter text.						
Background	<p>Relevant History: Click here to enter text.</p> <p>Where is the wound?</p> <table border="1"> <thead> <tr> <th>Left <input type="checkbox"/></th> <th>Right <input type="checkbox"/></th> </tr> </thead> <tbody> <tr> <td> Toe <input type="checkbox"/> Dorsum <input type="checkbox"/> Plantar Forefoot <input type="checkbox"/> Heel <input type="checkbox"/> Midfoot <input type="checkbox"/> Other: Click here to enter text. SINBAD score= </td> <td> Toe <input type="checkbox"/> Dorsum <input type="checkbox"/> Plantar Forefoot <input type="checkbox"/> Heel <input type="checkbox"/> Midfoot <input type="checkbox"/> Other: Click here to enter text. SINBAD score= </td> </tr> <tr> <td> Duration: <input type="text"/> weeks New ulcer <input type="checkbox"/> Re occurrence (same site) <input type="checkbox"/> Size: L <input type="text"/> W <input type="text"/> D <input type="text"/> </td> <td> Duration: <input type="text"/> weeks New ulcer <input type="checkbox"/> Re occurrence (same site) <input type="checkbox"/> Size: L <input type="text"/> W <input type="text"/> D <input type="text"/> </td> </tr> </tbody> </table> <p>HbA1c at presentation: <input type="text"/> mmol/mol</p> <p>Cellulitis evident? Yes <input type="checkbox"/> No <input type="checkbox"/> Antibiotics? Yes <input type="checkbox"/> No <input type="checkbox"/></p> <p>If yes, Drug: Click here Dose: Click here Start date: Click here to enter a date.</p> <p>Picture attached to email(several views if possible): Yes <input type="checkbox"/> No <input type="checkbox"/></p> <p>Current dressing plan:</p> <p>Current offloading plan: Click here to enter text.</p> <p>Is the patient able/willing to travel to attend an appointment? Yes <input type="checkbox"/> No <input type="checkbox"/></p>	Left <input type="checkbox"/>	Right <input type="checkbox"/>	Toe <input type="checkbox"/> Dorsum <input type="checkbox"/> Plantar Forefoot <input type="checkbox"/> Heel <input type="checkbox"/> Midfoot <input type="checkbox"/> Other: Click here to enter text. SINBAD score=	Toe <input type="checkbox"/> Dorsum <input type="checkbox"/> Plantar Forefoot <input type="checkbox"/> Heel <input type="checkbox"/> Midfoot <input type="checkbox"/> Other: Click here to enter text. SINBAD score=	Duration: <input type="text"/> weeks New ulcer <input type="checkbox"/> Re occurrence (same site) <input type="checkbox"/> Size: L <input type="text"/> W <input type="text"/> D <input type="text"/>	Duration: <input type="text"/> weeks New ulcer <input type="checkbox"/> Re occurrence (same site) <input type="checkbox"/> Size: L <input type="text"/> W <input type="text"/> D <input type="text"/>
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Assessment	<p>Vascular supply:</p> <p>Neurological:</p> <p>Other:</p> <p>Foot deformity:</p> <p>Pain Score:</p>						
Recommendations (what do you want? E.g. plan? Bring appointment forward? DFC appointment?)							

PLEASE EMAIL THIS FORM TO THE MDFT ADMINISTRATOR WITH A PHOTO ATTACHED. Phone
MDT Discussion

Situation	Reason for referral: Click here to enter text.	
Background	Assessments already done: Click here to enter text.	
	Renal Status: eGFR: Click here to enter text. Creatinine: Click here to enter text. CKD Stage: Click here to enter text. Current HbA1c: Click.mmol/mol Known to DNS: Yes <input type="checkbox"/> No <input type="checkbox"/> Remark: Click here to enter text.	
Assessment	What needs to happen? What else do we need? Click here to enter text.	
Recommendations	Plan: Click here to enter text.	
	Outcome: Click here to enter text.	
	Imaging Requested, prior to appointment: X ray <input type="checkbox"/> Duplex <input type="checkbox"/> Other: Click here to enter text.	
	Refer on: Click here to enter text. Advice only <input type="checkbox"/>	Epro Letter: Yes <input type="checkbox"/> No <input type="checkbox"/>
	To book DFC appointment: Yes <input type="checkbox"/> No <input type="checkbox"/> How many weeks/date: Click here to enter text.	
	If yes: book new <input type="checkbox"/> follow up <input type="checkbox"/> routine <input type="checkbox"/> urgent <input type="checkbox"/> Follow up review in Virtual <input type="checkbox"/> When: Click here to enter text. Comments for : Click here to enter text.	

Supplementary table 2 Diabetes Foot Proforma for MDFT Referral

Supplementary document 3 Statistical analysis of amputation incidence and outcomes of education programme

North Devon diabetic foot outcomes- major amputations				PHE comparisons - All England*			Interventions
year	Major number	DM population	incidence	incidence	LCI	UCI	
2011	11	9250	11.9	8.3	8.1	8.4	
2012	14	9250	15.1				
2013	12	9250	13.0	8.4	7.9	8.3	
2014	10	9700	10.3				
2015	14	9700	14.4	8.2	8	8.4	Peer review
2016	15	9700	15.5				MDFT vascular hub
2017	3	10616	2.8	8.2	8	8.4	Podiatry links to general practice, virtual MDFT, STP funding
2018	3	10616	2.8	8.2	8.1	8.4	
2019	4	10616	3.8				

*LCI lower confidence interval, UCI upper confidence interval

North Devon diabetic foot outcomes minor amputations				PHE comparisons All England*			Interventions
year	Minor number	DM population	incidence	incidence	LCI	UCI	
2011		9250		20.4	20.1	20.7	
2012		9250	31				
2013		9250	34	21	20.7	21.3	
2014		9700	33				
2015	36	9700	37	21.2	20.9	21.5	Peer review
2016	30	9700	31				MDFT vascular hub
2017	23	10616	22	21.5	21.2	21.8	Podiatry links to general practice, virtual MDFT, STP funding
2018	18	10616	17	22	21.7	22.3	
2019	16	10616	15				

*LCI lower confidence interval, UCI upper confidence interval

Major and minor diabetes related lower extremity amputations aligned with interventions to improve services. North Devon compared to NHS England data from PHE/fingertips/diabetes.

	HbA1c>70 at baseline n=8		P value paired t-test baseline v 6 months	All participants n=47		P value paired t-test baseline v 6 months
	Baseline	6months		Baseline	6months	
Age mean	58.75 (SD13.16)			61.3 (SD 13.7)		
Gender	3/9 female			18/46 female		
Mean Weight Kg	102.4 (SD 27.4)	94.3 (SD 24.8)	0.031	99.4 (SD 25.0)	95.4 (SD 24.2)	0.0000003
HbA1c mmol/l/mol	86.5	69.0	0.008	59.3 (SD16.0)	54.7 (SD 12.6)	0.003

Weight and HbA1c changes after text and phone-based diabetes structured education in North Devon 2018 to 2019

Supplementary document 4 Description of Oviva diabetes education programme

Who are Oviva?

Oviva is a digital behaviour change company. Our team of specialist healthcare professionals combined with our unique digital tools support you to improve your health and better self-manage your condition.

The one-to-one support led by our healthcare professionals is personalised, engaging and tailored to your individual needs. Our programmes are 100% remote, which means you can take part in the programme from the comfort of your own home at a time that suits you.

Oviva programmes are developed by experts using the latest scientific evidence, which means you have access to relevant, safe and up to date information and education. They are free on the NHS and our NHS Digital approved app & learning portal supports you to change your lifestyle to achieve long-term health improvements. The app allows you to track your progress and keep track of your goals!

What is Oviva Diabetes Support?

***Oviva Diabetes Support** is a free NHS service to help you learn more about your Type 2 diabetes and make lasting changes in your diet and lifestyle to help you stay well, lose weight, and improve your blood glucose and diabetes management.*

Our team of healthcare professionals offer fully remote appointments over the phone or via our app, so you can receive expert care from home at a time that suits you. As part of Diabetes Support, you will be able to speak to a specialist diabetes coach on a one-to-one basis, use the app to track your food and activity levels, and continue to work towards your health goals without leaving your home.

People who join our programme gain confidence in managing their diabetes. They are able to lose weight, improve their blood glucose and make lasting sustainable changes to their lifestyle, which will continue even when the programme has ended.

Carine Jelinek / Operations Manager

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