

VISION FOR DIABETES CARE IN GRAMPIAN

2023-2030



GRAMPIAN DIABETES
MANAGED CLINICAL
NETWORK (MCN)



TABLE OF CONTENTS



Our Purpose



Our Areas of Focus



Principles of Diabetes Care

6 Person-Centred Care

7 Equity

8 Intelligence-Led Care

9 Innovation



Area 1 – Type 2 Diabetes: Prevention, Early Detection and Intervention



Area 2 – Type 1 Diabetes: Early Detection, Intervention and Ongoing Care



Area 3 – Supporting People Living with Diabetes

12 Inpatients and Hospital Settings

13 Self-Management

14 Overcoming Psychological and Behavioural Barriers

15 Technologies



Area 4 – Complications of Diabetes – Early Detection and Intervention



Area 5 – Supporting Staff and Workforce Development



Glossary



OUR PURPOSE

Diabetes is a harmful, life-long condition that affects all parts of people's lives. Unfortunately, despite significant advances, it can still have devastating consequences for people and families living with diabetes. It impacts on physical and mental health, social and occupational wellbeing. Diabetes services cater for the preborn to the elderly, with its impact across all aspects of the health service. Care of diabetes and its complications are of significant cost to all parts of health and social care services. Effective management is crucial, not only for improving the lives of those living with diabetes, but to deliver value-based health care consistent with the principles of Realistic Medicine. Optimising diabetes services will result in prevention and early detection of harm whilst reducing avoidable spend across all health and social care services.

The most recent Scottish Diabetes Survey data (2021) revealed that **32,787 people in Grampian were living with Diabetes (5.5 %)** and it is estimated that an additional 3,000 people may have undiagnosed Diabetes. This number and prevalence has been rising significantly in recent years in parallel with national and international data. The Grampian population has an increasing number of people who are living with obesity as well as living longer, subsequently experiencing the burdens of long-term conditions.

This trajectory places a significant health burden on the population and a strain on Health and Social Care services. Considering the economic pressures and climate emergency, it is vital that we look to adapt to meet the challenge of improving outcomes for people living with diabetes in Grampian by making changes to improve population health.

It is estimated that the direct costs of Diabetes Care in Grampian in 2012 was around **£86 million**. **This risk could rise to £153 million by 2035** unless significant change is made to keep those living with diabetes well for longer. Without continued improvement in the delivery of healthcare, **a 6% increase in anticipated total health spend is predicted** and would account for spend on treatment, interventions and complications of diabetes. **An estimated 80% of this cost would comprise of complications of diabetes**, many of which could be prevented. This is a central consideration in our strategic thinking.

In our primary areas of focus, we will implement the concepts of person-centred care, promoting self-management through high quality care to ensure equity and innovation. Through early detection and intervention of diabetes and its complications we aim to reduce harm. This necessitates the application of innovation and technologies, backed by a skilled and adaptable workforce. This plan strives to unite these concepts while taking into account the needs of the various **people**, **places**, and **pathways** involved, reflecting the growing number of individuals and teams participating in diabetes care across many different settings in Grampian.

The Grampian Diabetes Managed Clinical Network (MCN) has developed the Vision to address the challenges we now face. We have looked to align this to national improvement and development frameworks to which we will also be required to report:

Scottish Diabetes Improvement Plan 2021-2026 

A Healthier Future: Type 2 Diabetes prevention, early detection and intervention 

Our document is structured to match the Scottish Diabetes Improvement Plan and adopts the priorities set out in the NHS Grampian Plan for the Future.

[NHS Grampian Plan for the Future 2022-2028](#)

We aim to provide a shared vision for health and social care professionals working with people living with diabetes in Grampian, promoting consistency of principles and priorities whilst linking with local and national strategies.

We are grateful to our colleagues and members of the Diabetes MCN Board and clinical teams who have contributed to the development of our Vision for Diabetes Care in Grampian.

This document is interactive by using embedded hyperlinks throughout, enabling readers to easily access additional information, resources, and related content for a comprehensive and engaging exploration of our vision.

Dr Alasdair Jamieson

GP and Grampian Diabetes MCN Clinical Lead

Dr Hannah Robertson

Consultant Diabetes and General Medicine

Deputy Grampian Diabetes MCN Clinical Lead



OUR AREAS OF FOCUS

Type 2 Diabetes:
Prevention, Early
Detection and
Intervention

Type 1 Diabetes:
Early Detection,
Intervention and
Ongoing Care

Person-
Centred
Care

Equity

Intelligence-
Led Care

Supporting
People Living
with Diabetes

Innovation

Complications
- Early
Detection and
Intervention

Supporting
Staff and
Workforce
Development



PEOPLE

Joining with
people to flourish.



PLACES

Using our places to proactively
seek the best health and
wellbeing and fairness for all.



PATHWAYS

Enabling a partnership approach
to our pathways of care.

Core
Principles

PRINCIPLES OF DIABETES CARE




Person-Centred Care



Vision

We aim to deliver care led by and tailored to individual's needs, prioritising what is important to them throughout all stages of their lives whether as a young adult, during pregnancy, whether well or unwell and at the end of their lives.

What we are doing well

- Good registration rates for **MyDiabetesMyWay** in Grampian. 
- Easily accessible structured education for people with new onset type 1 diabetes.
- Increased the uptake of continuous glucose monitoring for type 1 diabetes.
- Established multidisciplinary working groups, such as the diabetic foot MDT, the obstetric MDT, the renal diabetes group and the diabetes eye service, avoiding multiple appointments and ensuring services are developed with consideration of differing needs.
- Provide psychological-based training for healthcare staff.
- Offering needs-led psychological interventions to all those accessing secondary care services.
- Continue to develop the exemplary digital first psychological intervention “ACTnow” to people at risk of and with newly diagnosed type 2 diabetes. This improves both clinically and statistically significant emotional wellbeing and diabetes-related outcomes and is the only one of its kind in Scotland.
- Expanding the availability and choice of diabetes technology in children and young people.
- Provide a dedicated transition from paediatric to adult services and have a transition working group.
- Pre-consultation prompts or checklists are being used in Primary care and Secondary care so people living with diabetes can set their agenda as well as give information about emotional wellbeing to ensure appropriate prioritisation of needs are discussed.

Improvements and Outcomes

- Continue to support Primary care to deliver diabetes care that is underpinned by person-centred principles.
- Improve the integration of individuals' own health information (currently through **MyDiabetesMyWay**) into the context of appointments. 
- Reduce health inequalities and increase accessibility to services using a range of platforms, media and web-based interpreting tools tailored to the individual.
- Recognise strategic prescribing guidance such as **Scottish Diabetes Prescribing Strategy** whilst ensuring the delivery of person-centred care. 
- Enable specialist clinical decision support to be tailored to individual needs. This includes the diabetes multidisciplinary team, improving links within multi specialty teams like the diabetic foot MDT and the Primary and Secondary team interface through the Grampian Diabetes Practice Outreach Programme (GDPOP).
- Continue to develop services and education to provide equitable access to enhanced digital support and non-digital options.
- Explore digital options, including remote health pathways around anxiety and depression capture.
- Continue our partnership working with third sector organisations and those with lived experience, recognising the necessity of peer support groups in supporting self-management as well as co-production of services.

PRINCIPLES OF DIABETES CARE

Equity




Vision

Everyone living with Diabetes in Grampian will have the opportunity to access monitoring, support and treatment that is appropriate to their needs. To achieve this we need Grampian-wide specialist service provision which will allow for training and staff development where appropriate. This will reduce avoidable variance in outcomes and help address health inequalities.

What we are doing well

- A network of Diabetes specialists available to support Primary Care throughout Grampian, providing access to Diabetes care within every General Practice.
- Specialist care at four sites across the region regarding outpatient care and at two sites for inpatient care.
- Specialist Diabetes foot care at a range of sites across the region, with outreach to community-based services.
- A range of education and support to those living with diabetes through a variety of platforms including face to face, remotely (video/phone) and digitally. Within this we offer flexibility tailored to individual needs and wishes.
- An integrated and collaborative service that supports joint working and decision support allowing and supporting access to multi-professional inputs tailored to individual care.
- Appropriate education, assistance to, and collaboration with a range of professional colleagues outwith core Diabetes services both in Community and inpatient settings.
- We have a high level of technology usage amongst children and young people living with diabetes.

Improvements and Outcomes

- Reduce Primary Care service-based variation by using locality based collaborative care models working in line with the Grampian Vision for General Practice.
- Develop a model of greater sustainability for pan Grampian specialist provision.
- Continue to explore data to identify and reach groups where there is lower service engagement or poorer outcomes and subsequently pilot adaptations to improve these.
- Improve appropriate availability and access to psychological and other mental health supports through enhancing both awareness and screening opportunities.
- Increase the availability and access to diabetes technologies.
- Ensure diabetes specialist support and appropriate levels of care for nursing homes and peripheral hospitals.
- Monitor processes and outcomes of care as a way of assessing engagement with a view to increasing engagement with services.
- Reduce variability of engagement and outcomes across our region - geographically and by identified disadvantaged groups.
- Use Equality Impact Assessment (EQIA) and Fairer Duty Scotland assessments to shape recommendations for improvement of outcomes.
- Increase use of **MyDiabetesMyWay** to enable people to access their own data and engage with their individual processes of care. This will empower individuals to self-manage their condition by having education at a time suitable for them as well as take ownership of their health. 

Intelligence-Led Care

Vision

To use data as a core part of all diabetes services from individual practices to Grampian-wide data. This will continue to identify variation in outcomes, identify health inequalities to tailor services, target areas of increased need and improve services and outcomes for people in Grampian living with diabetes.

What we are doing well

- Delivery of SCI-Diabetes workshops for staff from across the diabetes service in Primary and Secondary care helps upskill staff in using SCI-Diabetes.
- Good relationships with Primary and Secondary care staff in terms of supporting their use of SCI- Diabetes.
- Regular provision of data for diabetes Morbidity and Mortality meetings.
- Supported audit and research studies through the provision of information in response to data requests.
- Identify both local and regional variation in diabetes care provision.
- Use data to monitor and assess quality improvement initiatives, such as increasing [MyDiabetesMyWay](#) registrations, STEP initiative to improve HbA1c in year one, the reduction in the number of people with an HbA1c >75 by increasing insulin pump numbers and re-engaging those who have not attended Secondary care in over 18 months.
- As part of the GDPOP - SCI-Diabetes dashboard data is shared with Primary care and has supported Primary care based Quality Improvement projects.
- We are the only region with long-term psychological outcome data which has been used to inform practice and train Health Psychologists.
- Linked point of care glucose data has been implemented across all inpatient services across Grampian.
- Work with the Scottish Ambulance service (SAS) to identify people who require SAS treatment of hypoglycaemia to community DSN teams for ongoing support and education to prevent recurrence.

Improvements and Outcomes

- Improve timely access for the hospital team to glucose and other important data items to support the care of people with diabetes in hospital and reduce delays in hospital discharges as a result of diabetes.
- Improve our ability to collect key outcome measures to enhance feedback from individuals on diabetes services in Grampian.
- Increased use of SCI-Diabetes in clinical consultations and improve links with other systems which will result in better recording for example, foot related interventions (ulcer management, surgery) (and/or recording of eye outcomes in terms of visual impairment, ophthalmic interventions).
- Enhance linkage of systems used across the diabetes MDT eg SCI-Diabetes, Trak Care, Primary care systems such as Vision, maternity systems such as Badgernet, the TURAS data collection tool for weight management services and device related cloud based systems.
- Support teams in Primary and Secondary care to increase the use of the data to support quality improvement initiatives, in particular using the SCI-Diabetes dashboard.
- Use TURAS data collection tool to measure and record those at high risk of Type 2 Diabetes, remission figures and those who are being treated for high BMIs within our limited weight management services.
- We would like to further increase the uptake of citizen facing records such as [MyDiabetesMyWay](#) so that people with diabetes have better access to their own data.
- Continue to work with Scottish Ambulance Service (SAS) and the Community Diabetes Specialist Nurse (DSN) to improve the care of individuals who have required a call out due to hypoglycaemia and not transferred to hospital. Real time data will be established by SCI-Diabetes and will be monitored.
- Further develop the Diabetes in Grampian website to support services as well as provide information.

PRINCIPLES OF DIABETES CARE



Innovation

Vision

To lead innovative approaches to care delivery and contribute to opportunities, where able, whilst ensuring value-based use of resources as well as addressing health inequalities.

What we are doing well

- Continuing to improve Primary and Secondary care interface and encouraging innovation through webinars, practice outreach meetings and conferences both face to face and virtual.
- Working with the Centre for Excellence and Digital Health and Care Innovation Centre, we are testing new digital pathways of care to support clinicians and those living with Type 2 Diabetes and higher BMIs.
- Exploring both local and national initiatives, such as home testing for HbA1c and use of Artificial Pancreas Systems (APS).
- Good links to Scottish Diabetes Group and local innovation hub, ensuring we are aware of other innovations as well as able to learn from this network and be involved in national projects.
- Designed and delivered an exemplary digital first psychological intervention to people at risk of and newly diagnosed type 2 diabetes with both clinically and statistically significant emotional wellbeing and diabetes-related outcomes; the only one of its kind in Scotland.
- Use SCI-Diabetes dashboard to audit information by clinical teams and the Diabetes MCN to improve upon the delivery of diabetes care for people living with diabetes in Grampian.
- Developing innovative ways to engage people with diabetes services to facilitate co-production, for example, the Diabetes in Grampian Facebook Page and surveys shared via this platform.


Improvements and Outcomes



- Maintain and improve the Grampian Diabetes Practice Outreach interface and develop to help drive quality improvement.
- Continuous development of the [Diabetes in Grampian website](#) to support services and programmes as well as share information for people with diabetes and those caring for them.
- Develop resources for all staff involved in care for people with diabetes across community, Primary and Secondary care.
- Increase awareness of the psychological services available to those at risk of and newly diagnosed with Type 2 Diabetes.
- Deliver and develop remote and hybrid options for person-centred delivery of care around digital options such as NearMe, cloud-based glycaemic data, and digital tools for lifestyle support.
- Increase uptake of digital delivery with staff offering digital or face to face options for most appointments.
- Improve the number of diabetes-outcome measures collected via a remote health pathway.
- Increase the number of practices and domains to use SCI-Diabetes to review the care of people living with diabetes.
- Develop innovative ways to help increase and promote communication and engagement with those living with diabetes, for example, developing our diabetes social media presence.

AREA 1

Type 2 Diabetes: Prevention, Early Detection and Intervention

Why this is important

In line with **NHS Grampian's Plan for the Future**,  we aim to promote health and well-being, reduce inequalities, and improve outcomes in diabetes through prevention, self-management, remission, and provision of safe, effective, person-centred care. This includes people 'at risk' of diabetes, for example, living with pre-diabetes, or experience of gestational diabetes as well as Type 2 diabetes.

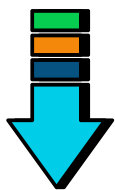
To align with the **Healthier Futures Diabetes Prevention Framework (2018)**  and **Diabetes Improvement Plan (2021)**,  NHS Grampian have adopted a whole-system approach to develop and implement seamless education with weight management, physical activity, behavioural change support pathways as well as emotional wellbeing support for adults living with or at risk of Type 2 diabetes.

We recognise the importance of training and informing staff as well as people living with diabetes. Reducing the proportion of people at high risk of developing Diabetes from progressing to this and its consequent harm (this includes improved identification of Pre-Diabetes and Gestational Diabetes and support to reduce their subsequent risk).

Commitments



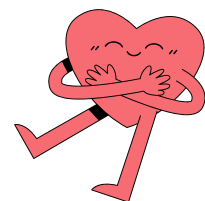
How we will know we are making a difference?



We will see increased uptake and decreased variance in new type 2 diagnosis diabetes-related services across Grampian



We will align outcomes to national diabetes dashboard in SCI-Diabetes to include new diagnosis of type 2 diabetes, such as HbA1c <58mmol/mol at 1 year post-diagnosis



We will increase the number of people with type 2 diabetes who have gone into remission

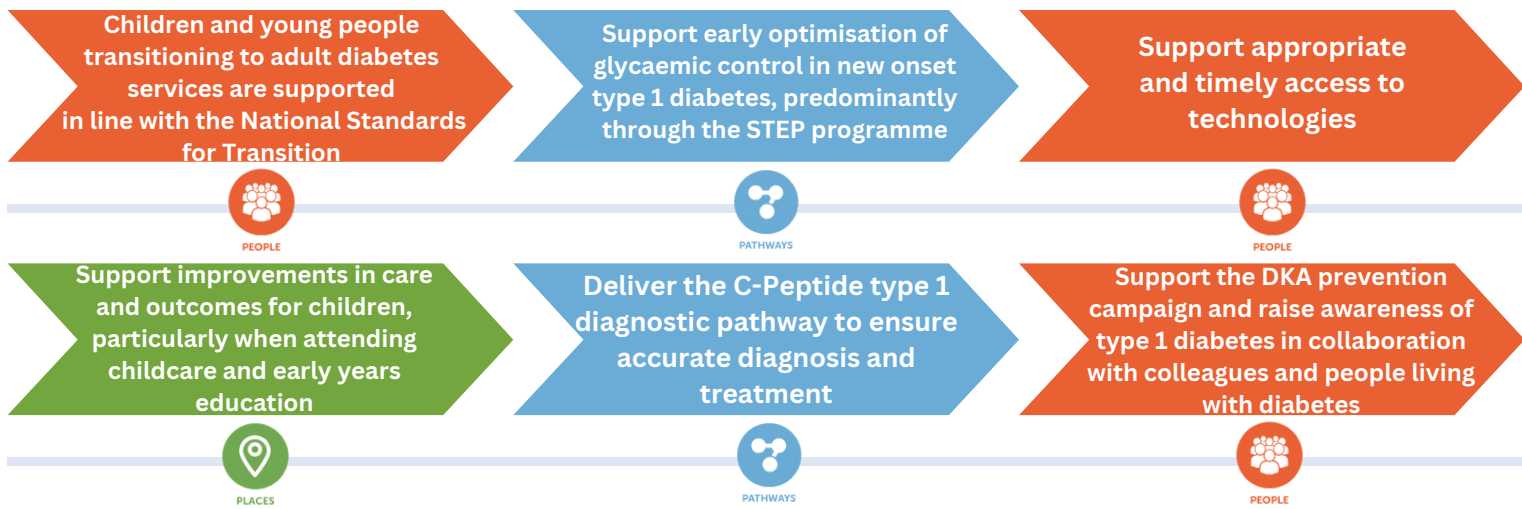
AREA 2

Type 1 Diabetes: Early Detection, Intervention and Ongoing Care

Why this is important

Early identification of someone with type 1 diabetes is crucial in order to prevent significant life-threatening, short-term morbidity such as diabetic ketoacidosis (DKA), as well as aim for early optimal control to help prevent complications in the long-term. Timely access to technologies is now expected to support people living with the burden of type 1 diabetes by reducing acute complications such as hypoglycaemia and DKA. Benefits to health services include reduced hospital stay, reduced requirement for unscheduled care and decreased impact of long-term complications.

Commitments



How we will know we are making a difference?



We will review DKA cases and look to learn about time of presentation, self-management, and severity at onset to help minimise harm



Increased % of people with HbA1c < 58 1yr post-diagnosis and % attended structured education within six months of diagnosis



Identify and take active steps to minimize any disparity in the uptake and use of technology based on age, gender, deprivation and ethnicity.



Increased % of 18–25 year olds with optimal glycaemic control and engaged with diabetes services



Reduced % DKA episodes per year and reach optimal diabetes control through improved HbA1c and blood glucose levels



Decreased % people with HbA1c > 75mmol/mol and Blood Pressure (BP) > 130mmhg



Identification of people misdiagnosed

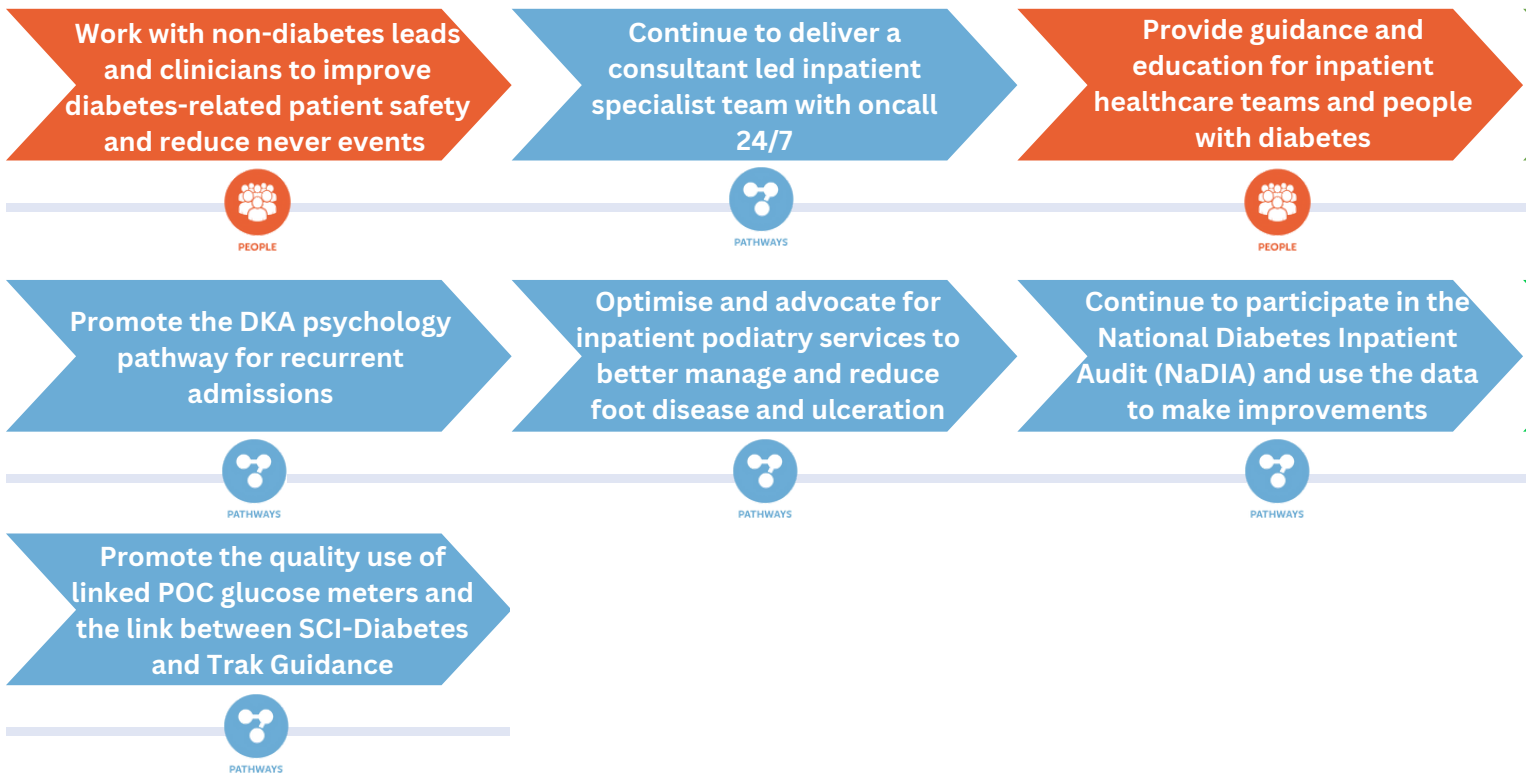
AREA 3

Supporting People Living with Diabetes - Inpatients and Hospital Settings

Why this is important

We aim to improve the quality of care for people when admitted to hospital by improving their glucose management and reducing the risk of complications during admission. With approximately 20% of all inpatient beds being used by people with diabetes but not for primarily diabetes related problems, harm such as hypoglycaemia, DKA and foot ulceration can occur in the inpatient setting due to multiple factors. Some of these include changes in the person which have occurred as a result of them being in hospital but also prescription errors, staff unfamiliarity with diabetes and workload. These errors have been shown to increase the length of stay for people with diabetes, add to the burden of their disease and increase diabetes associated health care costs.

Commitments



How we will know we are making a difference?



AREA 3

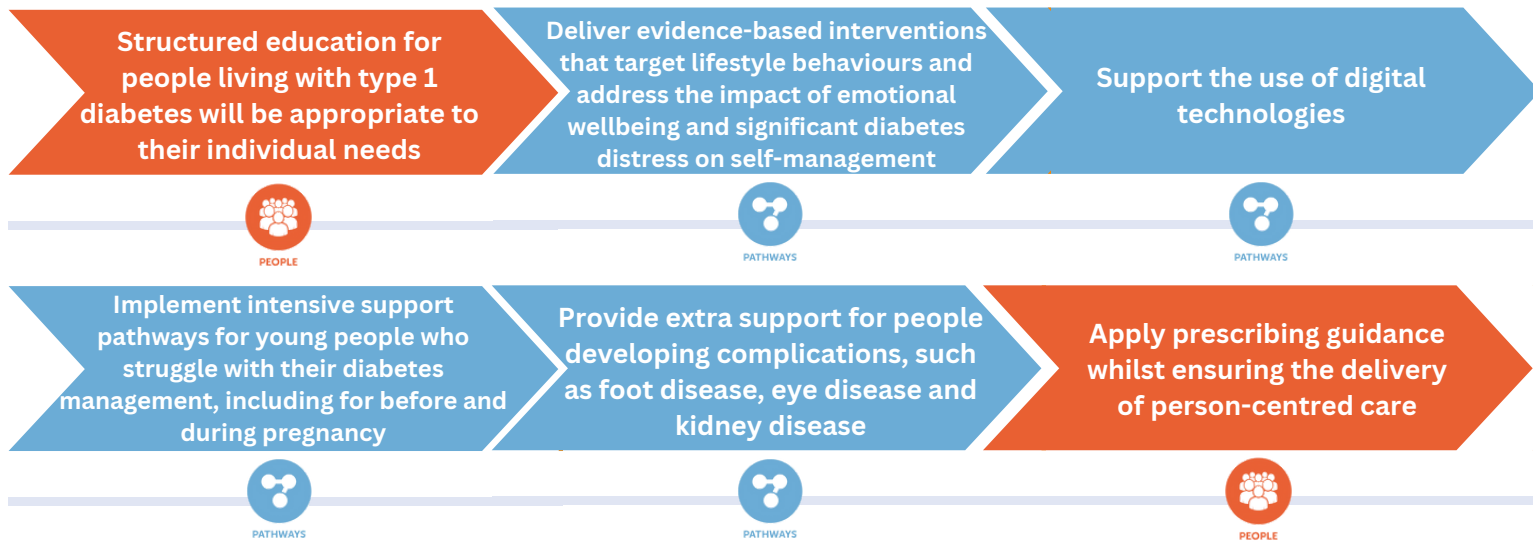
Supporting People Living with Diabetes - Self-Management

Why this is important

Supporting people to live well with their diabetes is vital to help individuals achieve optimal outcomes within the additional challenges that life with diabetes can potentially bring. People living with diabetes who are enabled and empowered to safely and effectively self-manage their condition are less likely to have unscheduled care requirements and will have a reduced risk of long-term complications with fewer sick days. The informed and involved patient will generally have lower demands on healthcare services with less impact on their day to day life. This can be achieved by offering consistent, high quality education and by creating mutually agreed individualised care plans.

Where appropriate, tailored interventions will be delivered to population groups who experience specific barriers and inequalities in accessing care. We will work with Health and Social Care Partnership (HSCP) colleagues to ensure person-centred care continues to be delivered.

Commitments



How we will know we are making a difference?



Uptake and ongoing use of My Diabetes My Way



Use of data generated from SCI-Diabetes and other relevant linked data sources in the care of people with diabetes



Supporting the uptake of appropriate and approved diabetes technologies like insulin pumps and glucose sensors to support diabetes management

Increased % of adults with diabetes screened for anxiety and depression. Reduced variation around provision of service and outcomes



Increased uptake of structured education by people living with diabetes

AREA 3

Supporting People Living with Diabetes - Overcoming Psychological and Behavioural Barriers

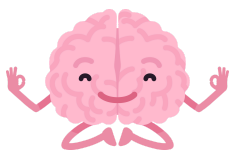
Why this is important

Living with a chronic physical health condition can put additional burden on to the person and those around them, which can potentially detrimentally impact their physical health outcomes. Diabetes is no exception to this. Whether it is changing dietary habits, monitoring blood glucose, injecting insulin, or engaging in daily activities, diabetes can have an impact on almost every aspect of a person's life. People with diabetes have to make many additional decisions every single day – the cognitive and psychological load of dealing with this on a daily basis cannot be underestimated. In addition, it is widely acknowledged that mental health problems are more common in people with diabetes and that identifying these problems is important because they are associated with poorer health outcomes. Identifying self-management barriers and supporting people to overcome them is a fundamental component of diabetes care.

Commitments



How we will know we are making a difference?



Increased mental health outcome capture for those at risk of and living with diabetes



Continued delivery of psychological interventions across Grampian



Ongoing development and delivery of evidence and needs based training packages to staff across Grampian

AREA 3

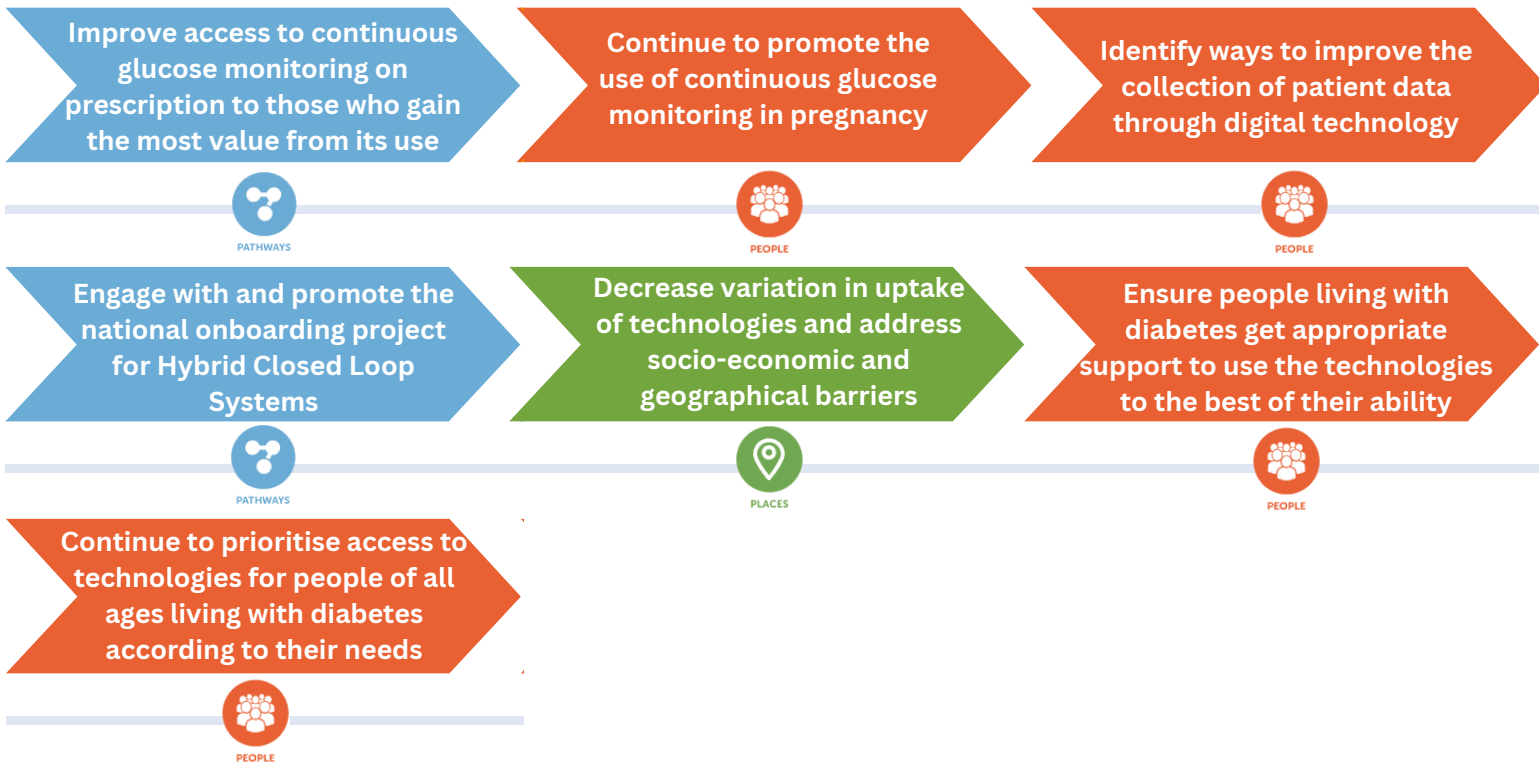
Supporting People Living with Diabetes - Technologies

Why this is important

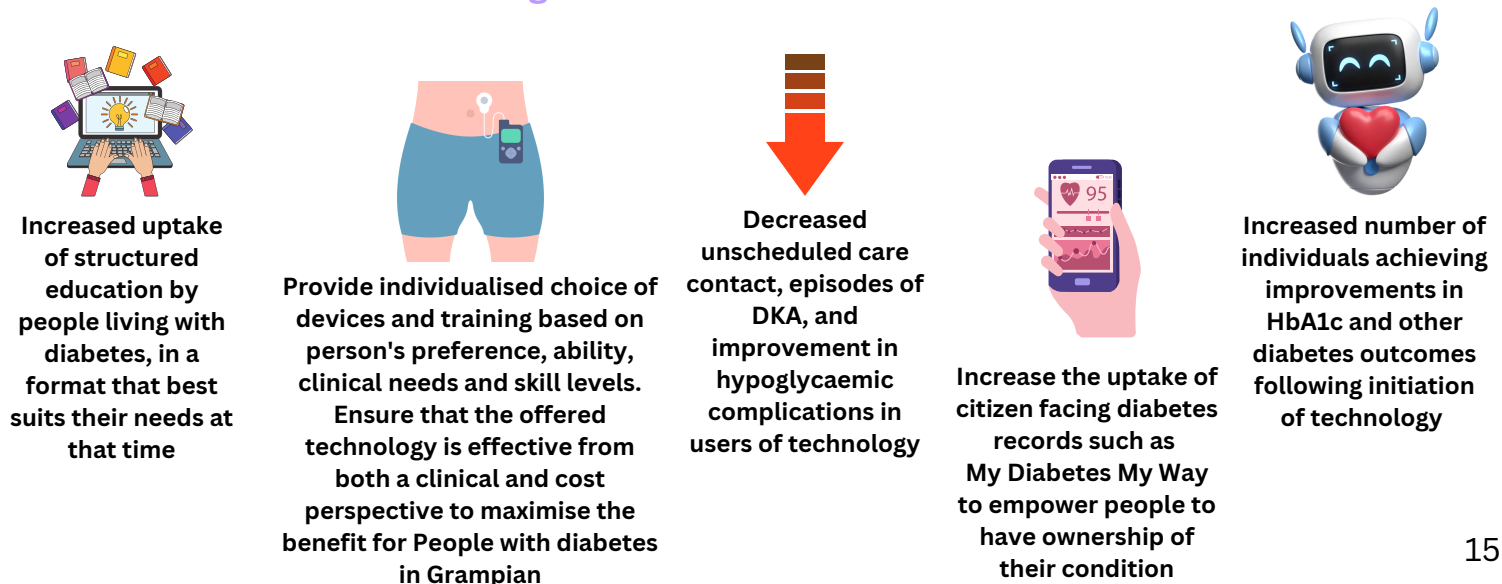
The new technologies that are becoming widely utilised by individuals with diabetes include, but are not limited to, glucose sensing, insulin delivery, closed loop systems, remote monitoring, intelligent drug delivery systems and novel screening strategies for diabetes complications and their treatment. Improvement in control with support from specialist teams has been shown to greatly improve HbA_{1c}, quality of life, reduce unscheduled care requirements and decrease long term complications ultimately improving lives of people living with diabetes as well as reducing long term cost burden on the health service

There are significant upfront costs and ongoing support required to maintain a safe service that supports people living with diabetes technological advances. How we translate this into practice is the challenge, in particular, addressing health inequalities by supporting equitable access and striving for equity of outcomes.

Commitments



How we will know we are making a difference?



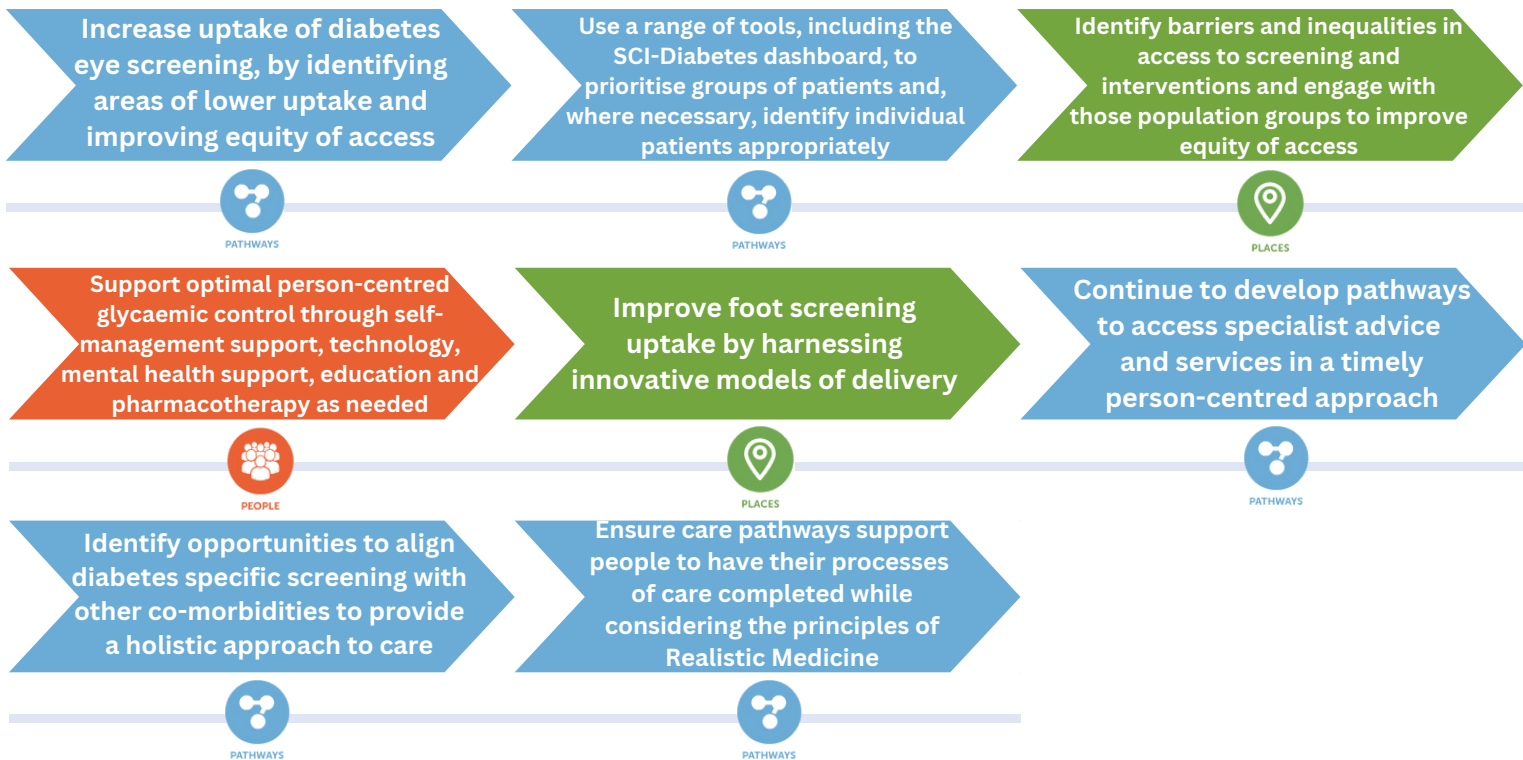
AREA 4

Complications of Diabetes - Early Detection and Intervention

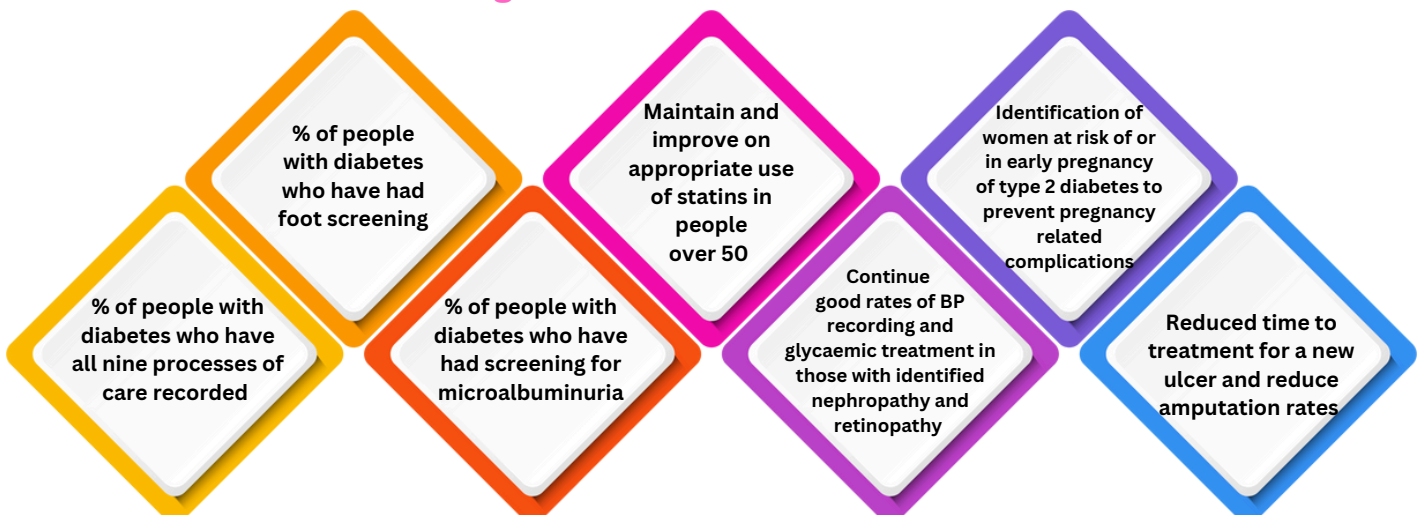
Why this is important

Diabetes can cause multiple complications many of which can be avoided with good glycaemic control, early detection and intervention. Diabetes related complications have significant impact across multiple aspects of health and social care teams and services. People living with poverty are more likely to get type 2 diabetes and more than 2 and a half times more likely to develop life changing complications such as heart problems or stroke. In addition, there is an increase in the number of people developing diabetes at a younger age often developing complications early on and living with significant morbidity for a higher proportion of their lives. Using pharmaceutical agents that are evidence-based but tailored to individual needs will ensure appropriate benefit without harm. This results in value-based care by decreasing risk of complications in the longer term. Equitable access to screening and intervention as well as robust pathways and strong links with other speciality teams when complications are identified is required to address health inequalities, decrease risks of these complications, improve lives and prevent unnecessary harm to people and unnecessary costs to the health service.

Commitments



How we will know we are making a difference?



AREA 5

Supporting Staff and Workforce Development

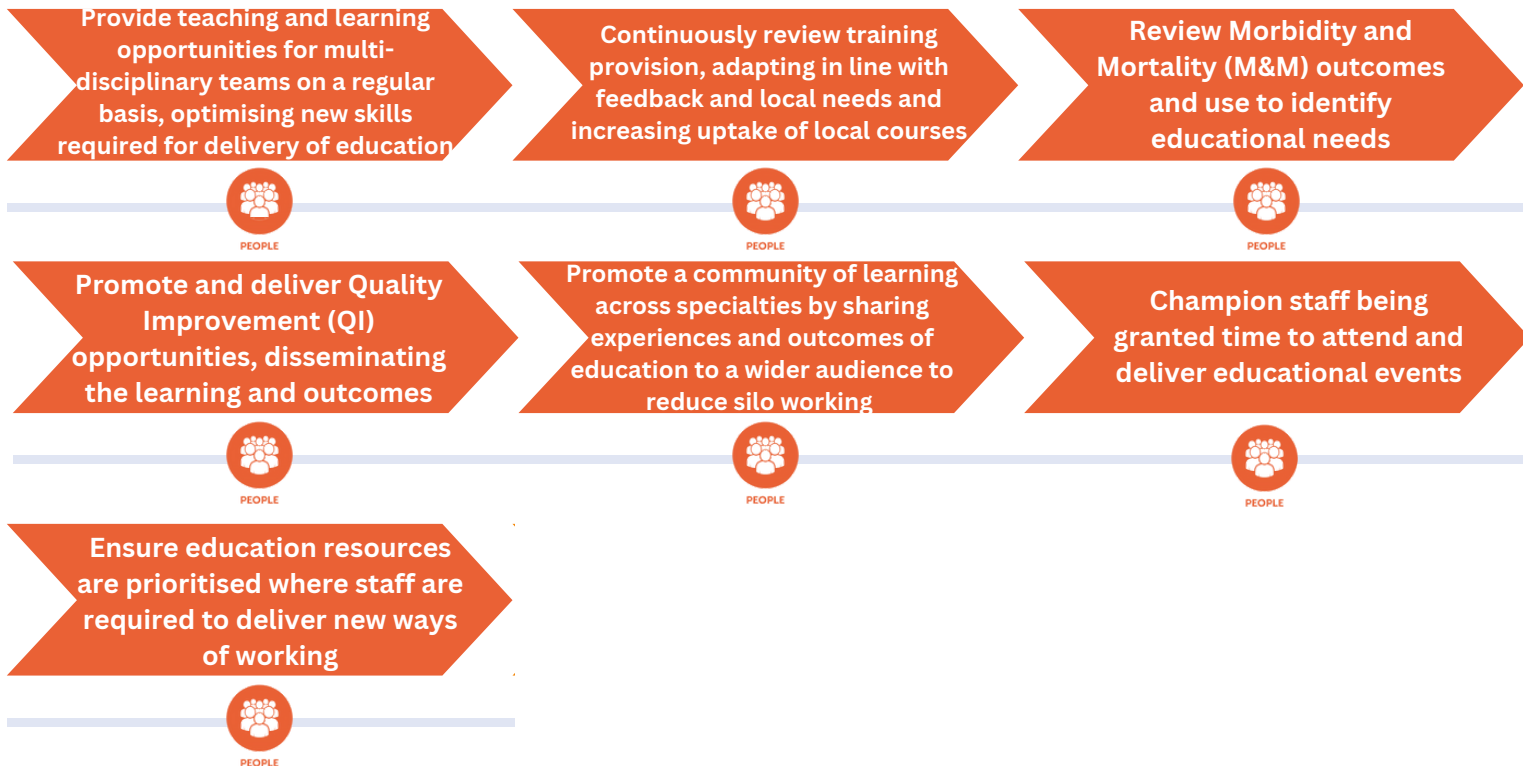
Why this is important

The most effective method of delivering diabetes care is to support people with diabetes to self-manage, empowering them to access timely and appropriate care and recognise when urgent or emergency care is required. Therefore, our healthcare professionals need to be supported to achieve this with knowledge and practical skills, as well as behaviour change and communication skills.

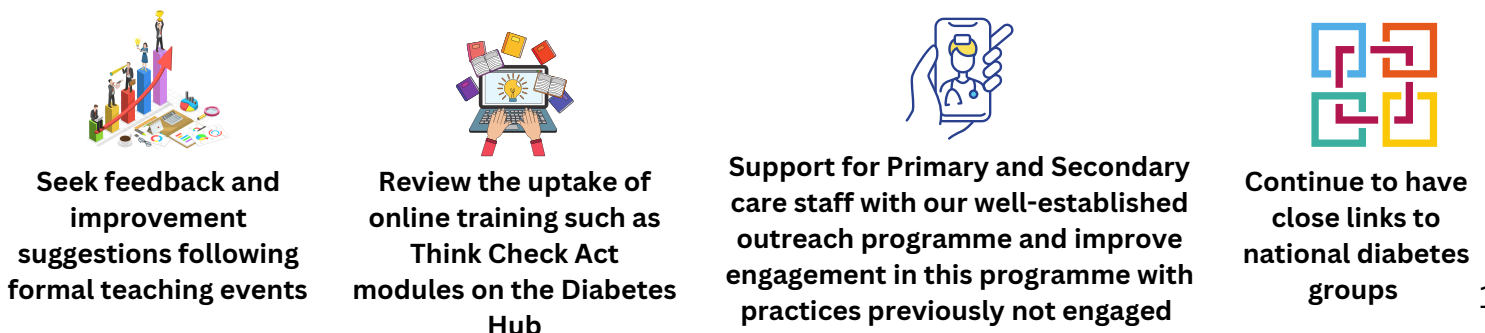
High quality patient care requires staff to receive high quality training, education and support to deliver the best outcomes. Current methods of education are widespread and include outreach forums, practice nurse support group meetings, our annual diabetes MCN conference and promotion of more widely available training tools such as the Diabetes Hub on TURAS. Some face-to-face learning has transferred to online platforms as we remain solution focused to support our colleagues across primary and secondary care. We promote specialist diabetes activity wherever this takes place. In addition to offering education to support diabetes care related skills, we are supportive of opportunities to improve staff health, wellbeing and resilience.

The reach of diabetes care spans health and social care services, such as non-diabetes specialists in secondary care, primary care, third sector, allied healthcare professionals, leisure services and pharmacy meaning a wider audience for education as well. To future proof our workforce, the diabetes specialist team has active involvement with undergraduate and postgraduate healthcare curriculum (mostly RGU and University of Aberdeen) for medical and allied health care professionals.

Commitments



How we will know we are making a difference?



GLOSSARY

Term	Definition
ACTnow	A guided self-help programme aimed at improving both glycaemic control and emotional wellbeing of people with type 2 diabetes
BP	Blood Pressure
CGM	Continuous Glucose Monitoring
CLS	Closed Loop System
C-peptide	A blood test to measure how much of their own insulin a person is producing
CPR for Feet	A campaign to highlight risks and reduce development of foot ulceration in care settings
DKA	Diabetic Ketoacidosis
GDPOP	Grampian Diabetes Practice Outreach Programme
Glycaemic control	A description of serum glucose concentration in individuals with diabetes
HbA1c	A blood test that measures average blood sugar levels
HHS	Hypersmolar Hyperglycaemic State

GLOSSARY

Term	Definition
HSCP	Health and Social Care Partnership
Hypoglycaemia	Low blood sugar levels
MCN	Managed Clinical Network
MDMW	MyDiabetesMyWay
MDT	Multi-Disciplinary Team
Microalbuminuria	An amount of urinary albumin that is greater than the normal value but lower than what can be detected by a conventional urine dipstick
mmhg	Millimetres of mercury (how blood pressure is measured)
mmol/mL	Millimoles per litre
NaDIA	National Diabetes Inpatient Audit
Nephropathy	Deterioration of kidney function
Never Events	Diabetic Ketoacidosis (DKA), foot ulceration and severe hypoglycaemia (HHS)

GLOSSARY

Term	Definition
Pharmacotherapy	The treatment of health conditions with medication
POC	Point of Care
Retinopathy	Disease of the retina
SCI-Diabetes	An integrated shared electronic patient record to support treatment of people living with diabetes
SDS	Scottish Diabetes Survey
SIMD	Scottish Index of Multiple Deprivation
Statins	A group of medicines that can help lower the level of cholesterol in the blood
TURAS	NHS Education for Scotland's single, unified learning platform
RGU	Robert Gordon University
QI	Quality Improvement
M&M	Morbidity and Mortality