NHS
Nottingham and Nottinghamshire

Delivery of Diabetes Care in Nottingham and Nottinghamshire

Briefing for Nottinghamshire Health Scrutiny Committee

June 2023

1.0. Purpose

1.1. The purpose of this briefing paper is to provide an update to Nottinghamshire County Council Health Scrutiny Committee on the delivery of diabetes care in Nottingham and Nottinghamshire.

1.2. The local system is focused on continuing to provide specialist diabetes support to those most in need – all people with Type 1 diabetes and those with Type 2 diabetes with high Hba1c and/or complex co-morbidities including mental health issues.

1.3. Education of the modifiable risk factors for poorer health outcomes will not only be important for people living with diabetes, but it will also be critical in guiding management and providing targeted support to those at high risk of developing Type 2 diabetes which includes weight management.

1.4. The diabetes transformation programme aims to provide better access and an improved experience across primary, community and secondary care. This includes widening access to technology for those most in need.

2.0. Overview of Diabetes Statistics and Trends in Nottingham and Nottinghamshire

2.1. Diabetes mellitus is a chronic complex metabolic disorder characterised by high levels of blood glucose and caused by defects in insulin secretion and/or action. As of 2019, 3.9 million people had been diagnosed with diabetes in the UK, 90% with Type 2. In addition, there are almost a million more people living with Type 2 diabetes who have yet to be diagnosed, bringing the total number up to more than 4.8 million. It is estimated that by 2025 more than 5.3 million will have diabetes.

2.2. Diabetes is a hidden condition. If left untreated or undiagnosed, it can cause serious harm affecting every part of the body, damaging the cardiovascular system, blood vessels and organs.

2.3. Diabetes costs 10% of the NHS budget, 80% of which is spent on treating preventable complications.

2.4. Prevalence of Diabetes across the system is increasing year on year in line with the increase seen across England. From 2009/10 to 2020/21 prevalence of Diabetes has risen from 5.2% to 7.0% today. This is an increase of 35%. Specifically in Nottingham and Nottinghamshire, there are currently 69,065 people aged 15 and over with Type

2 diabetes (6.7% prevalence) and a further 6,285 people aged 15 and over diagnosed with Type 1 diabetes (0.6% prevalence).

2.5. Obesity is a known significant risk factor for the development of Type 2 diabetes, but also for the development of gestational diabetes during pregnancy. By making changes to diet, increasing physical activity and losing weight, about half of Type 2 diabetes cases can be prevented or delayed in some people.

2.6. In Nottingham and Nottinghamshire 85% of people with Type 2 Diabetes have at least 1 other long-term condition; 53% have 2 or more.

2.7. Logistic regression analysis carried out on local primary care data has confirmed the risk factors known from national and international evidence:

- Morbidly Obese people (BMI 40 are 7 times more likely to be diagnosed with Type 2 diabetes than people with an healthy weight (BMI18.5 < 25);
- People in the most deprived areas are 70% more- likely to be diagnosed than people in the least deprived areas;
- Males are 50% more at risk than females;
- People aged 65 and over are eight times more likely to be diagnosed with diabetes than people aged 18-44;
- People from black and minority ethnic groups are at a 70% higher risk than white people.
- The highest risk is with the Asian population who are 3 times more likely to have diabetes than white people.

2.8. Furthermore, a third of adults in England have pre-diabetes. Pre-diabetes means that an individual's blood sugars are higher than usual, but not high enough to diagnose with Type 2 diabetes. It also means that you are at high risk of developing Type 2 diabetes. This risk can be eliminated or reduced considerably by adapting relevant lifestyle factors, recognizing that these are also impacted by social determinants.

2.9. In Nottingham and Nottinghamshire there are 59,230 people aged 15 or over diagnosed by a GP with pre-diabetes (5.7% prevalence). Pre-diabetes does not present symptoms and therefore, there is the risk that this number is higher.

2.10. To ensure people with diabetes are seen in the right location at the right time, diabetes care divides into four main tiers of care as highlighted in the diagram in appendix 1.

3.0. Integrated Care System Diabetes Transformation Programme

3.1. The NHS Long Term plan sets out a range of diabetes commitments, to be reflected in system level plans including:

- Ensuring universal access to Diabetes Inpatient Specialist Nurses;
- Ensuring universal access to Multi-Disciplinary Footcare Teams;
- Further expansion of provision of diabetes structured education;

- Providing support across primary care to enable more people to achieve the recommended diabetes treatment targets and drive down variation between GP Practices.

3.2. The 2023/24 NHS Operational Planning & Contracting Guidance asks that ICS' develop plans for the prevention of ill-health. This should involve improving uptake of lifestyle services, the Diabetes Prevention Programme, Low Calorie Diets, the new Digital Weight Management Programme and digitally supported self-management services. Focus should be on socio-economically deprived populations and certain ethnic minority groups in line with the Core20Plus5 framework.

3.3. Locally there is an established Nottingham and Nottinghamshire ICS Diabetes Steering Group comprised of key stakeholders (commissioning leads, local clinical experts, patient representatives, NHS England, Diabetes UK, Public Health) who oversee current service offers and agree transformational change.

3.4. Transformation priorities are in addition to or developments in relation to existing services as outlined in the tiers in appendix 1. Existing services include the following:

- NHS Diabetes Prevention Programme (NHS DPP)
- Structured education programmes for patients diagnosed with Type 1 and Type 2 Diabetes (DESMOND, DAFNE, KAREN, Healthy Living, MyType1Diabetes)
- Education programmes for Primary and Secondary Care staff
- Diabetic Specialist Nurses working with GP Practices
- Specialist Diabetes Podiatrists
- Dieticians
- Secondary Care Specialist Services

3.5. Key transformation priorities identified by the ICS Diabetes Steering Group and in line with the national agenda for 2023/24 are outlined below.

NHS Diabetes Prevention Programme (NHS DPP)

3.6. Prevention is at the heart of the NHS Long Term Plan. One of the key commitments is to deliver the NHS Diabetes Prevention Programme (NHS DPP). This reflects a major contribution on the part of the NHS to upstream prevention and will enable more at-risk individuals to access the programme and support them lowering their risk of Type 2 diabetes.

3.7. Locally we will continue to work collaboratively with Living Well Taking Control to implement, deliver and ensure future sustainability of the NHS DPP. Living Well Taking Control is committed to working with local communities and along with system partners, will be identifying priority neighbourhoods and developing culturally competent approaches.

3.8. Data from Living Well Taking Control monthly site reporting shows that between 01st December 2020 – 31st March 2023:

- 9220 referrals have been received from Primary Care;
- 981 participants are currently on the face-to-face programme;
- 159 participants are accessing the digital app;
- 57% of participants are female compared to 43% who are male;
- 25% of all participants are from Black Asian and Minority Ethnic groups.
- Average weight loss on completion is 5kg.

3.9. The ICS NHS DPP Delivery Group has utilised local NHS DPP data to identify the following priority areas:

- Increase uptake in high social deprivation areas;
- Increase uptake in male population;
- Increase uptake in working age population;
- Increase uptake in BAME population;
- Increase referral rates across Mid-Nottinghamshire.

3.10. A targeted approach will be achieved by working collaboratively with Living Well Taking Control to deliver the following communication and engagement activity: -

- ICS wide public transport campaign including promotion on high footfall bus and tram routes - targeting areas of low NHS DPP uptake, socially deprived areas and areas with high BAME prevalence;
- Delivery of partnership campaigns with local sports clubs including Mansfield Town Football Club, Notts County Cricket Club and Nottingham Forest Football Club including social media campaigns, match day programme coverage, venue poster campaigns;
- Development of GP resource packs;
- Translating NHS DPP patient resources into multiple languages including: e.g., Arabic, Farsi, Kurdish Sorani, Polish, Romanian. Urdu, Tigrinya;
- Delivery of community-based NHS DPP education sessions across PBPs working with community leaders to target high risk groups.

Type 2 Diabetes Pathway to Remission - NHS Low Calorie Diet

3.11. The NHS is delivering a new programme which provides a low calorie diet treatment for people who are overweight and living with Type 2 diabetes. The programme is based on two large studies which showed that, as a result of going on a specially designed programme, people living with Type 2 diabetes who were overweight could improve their diabetes control, reduce diabetes-related medication and, in some cases, put their Type 2 diabetes into remission (no longer have diabetes).

3.12. Eligible participants are offered low calorie, total diet replacement products – for example, soups and shakes which add up to around 900 calories per day – for up to 12 weeks. During this time participants replace all normal meals with these products.

Alongside this, participants receive support and monitoring for 12 months including help to re-introduce real food after the initial 12-week period.

3.13. The NHS Low Calorie Diet Pilot isn't suitable for everyone and there are some strict eligibility requirements that people must meet to be involved.

3.14. Locally, ABL Health – Your Health, Your Way provide the NHS Low Calorie Diet Pilot across Nottingham and Nottinghamshire.

3.15. The service went live accepting referrals from February 2022 with face-to-face sessions commencing April 2022. To date 373 eligible referrals have been received with 137 patients commencing the programme. An average weight loss of -12.5kg has been observed in those completing the first 12 weeks of the programme.

3.16. There are only 500 intervention places available initially so it will be important to continue to target areas of greatest need using population health management approaches.

Diabetes in Hospital

3.17. A significant number of surgeries are cancelled due to poor management of diabetes identified pre-operatively. Understanding and managing a patient's diabetes is especially critical when they are undergoing surgery. Getting diabetes treatment wrong could lead to hypoglycaemia and hyperglycaemia both of which may cause serious harm.

3.18. Poor diabetes control also increases the risk of post-operative surgical complications, including delayed wound healing and infection.

3.19. People with diabetes who have surgery experience increased length of stay, higher readmission rates and higher morbidity compared with people without diabetes.

3.20. Transformation funding has been utilised to expand the current multi-disciplinary team at Nottingham University Hospitals NHS Trust with a consultant led triage service that will work with surgical, anaesthetic and pre-operative assessment teams through a referral pathway to ensure timely and appropriate assessment and optimisation of control for people with sub-optimally controlled diabetes (Hba1c >69mmol/mol) prior to elective surgery. Sherwood Forest Hospitals NHS Foundation Trust have also implemented an approach to identify individuals on the waiting list with high Hba1c. The approach includes supporting individuals with lifestyle changes that will impact on the management of their diabetes and refer to the Nottinghamshire County Council Service, Your Health Your Way and other community assets.

Multi-Disciplinary Foot Care Teams

3.21. Foot disease is a known complication of diabetes. NICE NG19 recommends: Adults with diabetes should have foot risk assessment when diabetes is diagnosed, and at

least annually thereafter. Patients with active foot problems are referred within one working day to specialist foot care service, for triage within one further working day.

3.22. Locally, there are increasing amputation rates and increasing emergency admissions. Enhanced foot care can reduce foot ulcers, amputation incidence and reduce associated inpatient bed days. In 2021 there were 48 major lower limb amputations (above the ankle) compared to 38 in 2019 and 101 minor lower limb amputations compared to 69 in 2019. The largest increases in amputations occurred in South Notts (52 compared with 32 in 2019) and Nottingham City (56 compared with 36 in 2019).

3.23. To address these issues existing podiatry and foot care services have been expanded with additional resource for a Nottingham and Nottinghamshire wide Diabetic Foot Protection Team. This is a community-based team with specialist knowledge and the capacity to target population cohorts and neighbourhoods with the highest risk.

3.24. Care delivery is provided by a team of Advanced Specialist Podiatrists and will be dependent on risk stratification, disease progression and severity, with implementation of patient care plans with referral and transfer of care across settings appropriate to reduce the risk of complications.

Improving achievement against recommended diabetes treatment targets in Primary Care

3.25. Completion of the NICE recommended 9 care processes and 3 treatment targets prevents complications of diabetes which can develop with a long-term condition. These checks are important measurements and checks for the common complications of diabetes including, cardiovascular disease, kidney disease, peripheral arterial disease, nerve and eye damage.

3.26. Based on 2021/22 National Diabetes Audit data, Nottingham and Nottinghamshire achievement of these indicators is as follows:

Three Treatment Targets	**Care Processes**
Type 1 – 20.1 % (Eng – 21.6%)	Type 1 – 32.7 % (Eng – 32.8%)
Type 2 – 32.9% (Eng – 35.4%)	Type 2 – 46.9 % (Eng - 47.8%)

3.27. There is currently wide variation in attainment for these targets across GP Practices in Nottingham and Nottinghamshire, with results falling because of disruption due to COVID-19. To address this variation a new standardised diabetes framework has been implemented. In this approach the GP Practice is the bedrock of delivering high quality coordinated care, in partnership with the person with diabetes and with the Diabetes Specialist Nurse.

3.28. The overarching aim of the new scheme is to increase skills and knowledge in GP Practices and establish a diabetes care which focuses on the needs of the whole person, empowering people with diabetes to live healthy lives, and which provides timely support when issues arise.

Diabetes and Technology

3.29. NICE guidance published in April 2022 recommended the use of real-time continuous glucose monitoring (rtCGM) for all adults and children living with Type 1 diabetes, providing them with a continuous stream of real-time information on a smartphone about their current blood glucose level.

3.30. Alongside new rtCGM technology, the use of intermittently scanned glucose monitoring (isCGM) devices – also known as flash monitoring – has been expanded to adults with Type 2 diabetes on insulin therapy.

3.31. Locally, 76% of the people living with Type 1 diabetes currently have access to flash monitoring and 98% of pregnant women with Type 1 diabetes have access to rtCGM.

3.32. A system wide policy has been developed and approved locally that adopts the NICE guidance in full and work is now underway to ensure all eligible patients are able to access this technology.

3.33. Through collaborative working with Digital Notts we are exploring ways to utilise digital platforms Patient Knows Best (PKB) and the NHS APP to empower people living with diabetes to seamlessly access their personal health record to self-manage and coordinate their care. This includes developing a digital diabetes care plan to help patients self-manage their condition.

Children and Young People

3.34. The national Children and Young People's (CYP) Programme and the National Diabetes Programme are now developing a joint programme of work to improve care and outcomes for children and young adults with diabetes.

3.35. Data from the National Paediatric Diabetes Audit (NPDA) and the National Diabetes Audit (NDA) have shown big increases in the number of children and young people with Type 2 diabetes, with the number of CYP with Type 2 diabetes under the care of a paediatric diabetes unit trebling from 326 in 2012-13 to 976 in 2020-21.

3.36. When Type 2 diabetes occurs in young people, it is a much more aggressive disease than in older adults. Long-term follow up data show that in CYP diagnosed with Type 2 diabetes in childhood or adolescence, >60% had at least one diabetes-related complication and nearly 30% had at least two complications by the time they were in their mid-20s. They are also more likely to have co-morbidities such as hypertension and fatty liver disease.

3.37. 60% of 19–25-year-olds with Type 2 diabetes are female and so may be considering pregnancy. Pregnancy outcomes for young women with Type 2 diabetes are much poorer than the general population with one longitudinal study showing >50% of pregnancies in this group having an adverse outcome such as miscarriage, stillbirth, premature birth or a major congenital abnormality in the baby.

3.38. CYP with Type 2 diabetes are also more likely to come from minority ethnic backgrounds and/or areas of high socio-economic deprivation, adding further to health inequalities. In 2019/20, around 50% of all CYP aged 0-18 with Type 2 diabetes and 35% of 19–25-year-olds with Type 2 diabetes had a minority ethnic background, compared with 15% of the overall England population (in the 2011 census). Around 65% lived in the bottom two quintiles of indices of deprivation.

3.39. The NHSE CORE20PLUS5 approach to addressing health inequalities in CYP specifically highlights the need to increase the proportion of CYP with Type 2 diabetes receiving annual health checks.

3.40. Taking the above into consideration, Nottingham and Nottinghamshire ICB has identified the following as priorities for CYP in 2023/24:

- Working with colleagues in Primary Care to ensure all young people with diabetes aged 25 or under should be under the care of a dedicated, specialist diabetes team whenever possible.
- Reviewing the current provision of Type 2 diabetes services for CYP, particularly those aged 16-25 and ideally commission specialist services for this group.
- Reviewing approaches to prevention and weight management for CYP.
- Increasing access and uptake of rtCGM technology.

4.0. <u>In Conclusion</u>

4.1. Diabetes continues to be a key priority locally with the system focused on prevention and developing services that support people to live well with diabetes, addressing their concerns and supporting where we can all aspects of care including the complex array of life challenges that impact overall and health and wellbeing.

4.2. We continue to prioritise tackling the inequalities in diabetes outcomes experienced by those from deprived communities and those from ethnic minority groups. To underpin this work we will utilise population health data available to inform the action the local system takes to remove the barriers that cause inequality.

4.3. Providing the opportunity for personalised care through technology will fundamentally support the local diabetes population to improve self-management of their diabetes, impacting on quality of life, and reducing the onset of diabetes related complications associated with poor diabetes control.

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Appendix 1.0

Overview of Diabetes Services