Manchester City Council
Report for Information

Report to: Health Scrutiny Committee – 8 January 2019

Subject: Adult Diabetes

Report of: Dr Manisha Kumar, Clinical Director
Manchester Health and Care Commissioning

Summary

Manchester Health & Care Commissioning (MHCC) is working collaboratively with partners on a diabetes work programme to reduce inequalities in diabetes care and outcomes for the people of Manchester. The main aim is of improving health outcomes and quality of life for all those at risk of, or living with diabetes in Manchester, through supported self-management, personalisation and early optimal interventions. The three key aims are to prevent onset (in type 2 diabetes (T2D)), prevent progression and prevent the complications of diabetes.

Work streams, tools, standards, pathways and education resources have been developed to support the achievement of these aims.

Approach

MHCC has recently established a diabetes steering group to coordinate a system wide approach to ensure that the vision and aims for diabetes care in Manchester are implemented. The group has wide representation from all stakeholders including both primary and secondary care sectors, population health, voluntary organisations and people living with diabetes.

Through integrated working this steering group will co-ordinate the implementation of the diabetes work programme acting as a formal body to oversee the whole system approach on the delivery and management of diabetes care based on the Greater Manchester Best practice Guidance Document.

Tackling Diabetes Together
Diabetes Clinical Best Practice Strategy 2018-2023

This document was published by Greater Manchester Health and Social Care Partnership in April 2018. The majority of the MHCC Diabetes Steering Committee are also active members on the strategy working party. It is anticipated that ensuing diabetes work outputs for MHCC will be in alignment with and benchmarked against this best practice guidance. See Appendix 1

Recommendations

The Health Scrutiny Committee is asked to note the content of this report and provide comments on the diabetes work programme.

Wards Affected: All

Alignment to the Our Manchester Strategy Outcomes (if applicable)

Manchester Strategy outcomes	Summary of how this report aligns to the OMS
A thriving and sustainable city: supporting a diverse and distinctive economy that creates jobs and opportunities	The development of Community Health Development Coordinators and support to community based solutions will support recruitment from within and for local populations
A highly skilled city: world class and home grown talent sustaining the city's economic success	Patient education is a theme throughout the Diabetes work programme. This will empower people with Diabetes to manage their disease effectively and to know what to do and who to contact in a crisis. Clinician education and upskilling of staff via formal events or clinics as well as informal arrangements are as a direct result of this collaborative programme of work.
A progressive and equitable city: making a positive contribution by unlocking the potential of our communities	This paper demonstrates work streams which will lead to improved health outcomes, reduce health inequalities and reduce unwarranted variation.
A liveable and low carbon city: a destination of choice to live, visit, work	Providing excellent Diabetes health care closer to home for patients. Developing and delivering high quality local services for local people. Leading the way on innovation for Diabetes management.
A connected city: world class infrastructure and connectivity to drive growth	Collaborative working with Diabetes UK and the Primary Care Diabetes Society which ensure Manchester is at the forefront of knowledge on Nationwide initiatives and developments.

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Background documents (available for public inspection):

The following documents disclose important facts on which the report is based and have been relied upon in preparing the report. Copies of the background documents are available up to 4 years after the date of the meeting. If you would like a copy please contact one of the contact officers above.

Manchester Health and Care Commissioning (MHCC) was formed in the 2017/18 time period through the merger of North, Central and South Manchester CCGs and Manchester City Council to form a single commissioning function for health, public health and adult social care services for local people. In addition, on October 2017 Manchester University NHS Foundation Trust (MFT) was created through the merger of Central Manchester Foundation Trust and University Hospital of South Manchester with North Manchester planning to merge into MFT in the near future. This is facilitating a more collaborative approach to reducing variation in care across Manchester to include diabetes care. Therefore data for Manchester as one commissioning organisation is sparse, as many national audit data still includes the separated CCGs of North, South and Central Manchester and individual hospital sites. We hope that the committee will recognise this caveat when reading this document.

Introduction

Diabetes is a long-term condition that impacts significantly on the morbidity and mortality of those living with it. Type 1 diabetes (T1D) is currently non-preventable whereas type 2 diabetes (T2D), can often (but not always) be preventable and is predominantly a progressive disorder defined by deficits in insulin secretion and action that lead to abnormal glucose metabolism and related metabolic derangements.

T1D is defined as an absence of insulin production there are other rare causes of diabetes that include pancreatic and genetic factors.
Significant complications include those which are macrovascular for example, cardiovascular disease (CVD) and those which are microvascular to include nephropathy, retinopathy, neuropathy and erectile dysfunction. Diabetes causes over 1,000 premature deaths in Greater Manchester each year.

People with diabetes have a 55% higher chance of having a myocardial infarction; a 34% increased risk of having a stroke; a 164% increased risk of having renal replacement therapy; a 221% increased risk of having major amputation above the ankle and a 337% increased risk of having a minor amputation than someone without diabetes. Sight deterioration is not uncommon, with diabetic retinopathy affecting a third of people.

Many people can develop depression following diagnosis and many women experience complications in pregnancy and at birth due to diabetes.
Almost ten percent of the UK health care budget is spent on treating diabetes: 90% of this on treating its related long term complications. This financial burden calculation does not include monies spend on other related health economic impacts such as unemployment and disability allowances and social care.

The impact on individuals, their families and carers can be significant however, we know that early, appropriate intensive lifestyle and medical treatment of all risk factors in diabetes can bring positive long term benefits and there is now early data to show that in T2D we could be looking at lifestyle approaches to put diabetes into remission if diagnosis is made early in the disease progression. Therefore, the aim of diabetes management is to give a timely, holistic approach to include the aim of prevention, early diagnosis, possible remission and the management of not just hyperglycaemia but also cardiovascular and additional risk factors so that we can add ‘years to life and life to years’.

Background

Manchester has a registered population of 640,000 with this figure set to increase by 90,000 in the next 10 years. Although there is variation between areas of Manchester, overall the health of people in Manchester is generally worse than the England average, with life expectancy at 65 years also lower for both men and women. Manchester is in one the 20% most deprived local authorities in England with 36% of children in Manchester now living in low income families.

Around two-thirds of the life expectancy gap between Manchester and England is

predominantly due to three broad causes of death: Circulatory diseases, cancers and respiratory diseases which can all be linked to poor lifestyle which is also a key predictor of outcomes for diabetes.

Although the population of Manchester contains a smaller proportion of older people than other areas of the country, those that do reside in Manchester tend to have poorer physical and mental health and greater frailty. 33.4% of the resident population of Manchester come from ethnic minority backgrounds compared with 14.6% for England. Certain BME ethnicities are known to be increased risk factors for T2D. Literacy age is as low as nine years in some areas of the city. Poorer mental health can also impact on diabetes and Manchester sees an average of 16% of persons reporting moderate or extreme anxiety or depression compared to 12% nationally.

The above information represents specific challenges to the delivery of optimal diabetes care in Manchester which MHCC are striving to overcome. https://manchesterccg.nhs.uk/wp-content/uploads/14L_CCG_Annual_Report_2017-18_FINAL.pdf

Diabetes Prevalence
The table below shows the identified prevalence of persons who are on the General Practice Quality Outcomes Framework (QOF) disease registers with diabetes

	Diabetes Prevalence 17years+ by Locality (QOF %)		
	Manchester	Greater Manchester	England
2015/16	6.32	6.98	6.54
2016/17	6.35	7	6.67

A review of the GP QOF register identified 6% of the population to be diagnosed with Type 1 diabetes (T1D), whilst 94% of people to be diagnosed with T2D. This is similar to the national average.

Prevalence rates for diabetes, in particular, T2D, are set to increase on local, regional, national and global levels.

National data illustrates that Manchester's expected diabetes prevalence rates are set to increase as below serving to underline the very relevance of the current forward planning by the Manchester diabetes steering group.

Year Manchester	Expected Prevalence
2018	7.6% (33,043)
2020	7.7% (33,824)
2025	8.0% (36,355)
2035	8.5% (41,754)

Despite actual and predicted prevalence rates, public health modelling data frequently highlights gaps between the number of people expected to have diabetes and those who are actually diagnosed. For example, in the UK, there are

approximately 3.7million people diagnosed with diabetes, and yet a further 1 million people with diabetes but as yet undiagnosed.

https://www.diabetes.org.uk/professionals/position-statements-reports/statistics/diabetes-prevalence-2017

Work is in place within MHCC to look at ensuring more timely diagnosis of diabetes as evidence is strong in relation to improved health outcomes with early diagnosis and management.

The tables below quantify the difference between the average length of stay for both people with and without diabetes.

For emergency admissions, the average length stay in 2018 is nearly twice as long for those with diabetes and average cost per stay rises by £805 per person.

For elective admissions, average length of stay in 2018 for someone with diabetes is increased by a day and costs by £279 per stay.

Manchester CCG Population Emergency Admissions in 2018-19 (Apr-Nov)

Type	Diabetes	Patients	Activity	Cost	LoS	Avg Los	Avg Cost
Adult	No	486685	27462	£45,934,145	117826	4.3	£1,673
Child	No	140898	8782	£7,651,770	8195	0.9	£871
Adult	Yes	24512	4326	£9,918,337	28015	6.5	£2,293
Child	Yes	206	54	£82,557	156	2.9	£1,529
All	No	627583	36244	£53,585,915	126021	3.5	£1,478
All	Yes	24718	4380	£10,000,894	28171	6.4	£2,283

Manchester CCG Population Elective Admissions in 2018-19 (Apr-Nov) - not including Daycases

Type	Diabetes	Patients	Activity	Cost	LoS	Avg Los	Avg Cost
Adult	No	486685	4782	£11,971,547	13338	2.8	£2,503
Child	No	140898	506	£599,693	722	1.4	£1,185
Adult	Yes	24512	706	£1,880,065	2567	3.6	£2,663
Child	Yes	206	4	£5,461	9	2.3	£1,365
All	No	627583	5288	£12,571,239	14060	2.7	£2,377
All	Yes	24718	710	£1,885,527	2576	3.6	£2,656

Year on year emergency admissions data in those with diabetes, despite showing an increase in admissions (possibly related to a generalised increase in diabetes prevalence) does encouragingly show that the average length of stay is lowering and that average costs per stay, despite UK inflation levels are not escalating.

	Emergency admissions	Total cost of admissions	Average cost per admission	Average length of stay
2015/16	482	£803,714.05	£1,667	5.3
2016/17	499	£846,905.05	£1,697	5.1
2017/18	521	£877,766.67	£1,685	4.6

We will look at current initiatives to improve inpatient care later within this document.

Prevention of Onset

Children

At year six, 25.1% (1,422) of children in Manchester are classified as obese, worse than the England average of around 20%. As reflected in the GM Strategy document MHCC is fully supportive of the work outlined in The Population Health Plan (2017-2021). The plan contains commitments to the production of a comprehensive physical activity plan and a comprehensive plan for better nutrition and healthy weight. These plans will include the role of schools and colleges in encouraging children to develop healthy lifestyles; the move to more environments that are more conducive to people maintaining a healthy weight; and innovations such as the Manchester Cooking Project, exercise on referral schemes and other social prescribing initiatives.

See Appendix 2: Greater Manchester Combined Authority Population Health Plan 2017-2021

Adults

Prevention is key to improving outcomes and reducing treatment costs. The aim of the NDPP is to support those with non-diabetic hyperglycaemia with the tools and self-management skills to take control of their health and prevent the onset of T2D. Individuals are offered education through one to one interviews and group sessions. Those eligible are identified by primary care as persons who are not currently diagnosed with diabetes, but are identified to have non-diabetic hyperglycaemic (NDH) ie a HbA1c within the range of 42-47mmol/mol inclusive.

In Manchester 36,000 people are expected to have NDH. National studies have shown that up to 20% could progress to T2D in a year without intervention. However, sustained weight loss and or increased activity could result in reduced rates of progression.

The National Diabetes Prevention Programme is an ongoing national programme which began in 2016 and was rolled out in Manchester in August 2017.

In year 1, 96% of practices engaged with the NDPP programme. Almost 10,000 individuals have been identified as having NDH and added to practice registers. Provider reporting from August 2018 identified that 2239 eligible self-referrals were received, with 1457 initial assessments booked; of which 1312 initial assessments attended, with 595 patients attending the wellbeing sessions which meant that 27% of those eligible attended.

The mobilisation team have worked closely with the provider to ensure practices are supported through the process and are mobilised in practice cluster groups to ensure the programme is delivered locally.

The Health and Equality Report from the provider in Year 1 of mobilisation indicates 87% of the population attending the programme in Manchester are from the bottom 2 quintiles of the Index of Multiple Deprivation. This indicates the service is working towards addressing some of the health inequalities in Manchester based on deprivation.

Mobilisation for year 2 is underway which started in September 2018 and to support this programme of work, it is included within the Manchester Standards. We await initial results of NDDP in terms of weight loss and progression rates locally and initial 2 year national data is expected to be presented early next year.

See NHS England website for further details on the programme: https://www.england.nhs.uk/diabetes/diabetes-prevention

Diagnosis

As previously mentioned, in the section relating to prevalence, local, national and global population health modelling statistics show that there is a significant population of persons with diabetes and as yet undiagnosed. This predominantly relates to T2D by nature of its often-insidious onset rather than T1D which is often rapid and highly symptomatic in presentation with possible life threating hyperglycaemia resulting in diabetic ketoacidosis.

In increasing diagnosis rates and timely diagnosis of T2D the NHS Health Checks are integral in helping identify people with diabetes particularly as the service is able to provide outreach in hard to engage with populations. Data to October 2018 however, shows low uptake of the NHS Health Checks.

For further details see : https://www.healthcheck.nhs.uk/commissioners_and_providers/data/north_of_england/north_west/?la=Manchester&laid=84

Last quarter - October 2018

Total eligible population 2018-2019	140261
Number of people who were offered a NHS Health Check	3979 (2.8%)
Number of people that received a NHS Health Check	1344 (1%)
Percentage of people that received an NHS Health Check of those offered	33.8%

The Manchester Primary Care Standards has encompassed the NHS Health checks within the "Winning Hearts and Minds" section which relates to early detection of long term conditions. The desire is to increase the health checks from 7% offered and 4% received to 20% offered and 10% received each year.

Practices are being encouraged to focus on those at highest risk and there is focus on those with severe mental health issues as this is a particularly high risk cohort for T2D. Practices are being asked to undertake the following:

- **NHS Health Check identification and referral**
- **NHS Health Check completion**

The impact of the addition of NHS Health Checks into the Primary Care Standards is difficult to quantify at present as roll out only began in August 2018. However the initial programme will run until 2020 and initial findings are positive as more people are attending for a Health check.

There is on-going work supporting a revamp of the NHS Health Checks at Greater Manchester level to include using digital tools which can search patient electronic registers to look for those with high risk factors for diabetes so that focused screening may be beneficial. This will be coordinated at a GM level to ensure all eligible patients are invited.

In future, all people who have a Q Diabetes score (a measure of the risk of developing diabetes) >4%, who have not previously been diagnosed with diabetes, will be invited for a Health Check at least every five years. See Appendix 1.

Primary Care Prevention of Progression and Complications

Quality and Outcomes Framework

Practices continue to deliver the Quality and Outcomes Framework for Diabetes this includes annual reviews, screening and optimisation to ensure appropriate treatments target are met.

https://qof.digital.nhs.uk/

Improvement of the Eight Care Processes

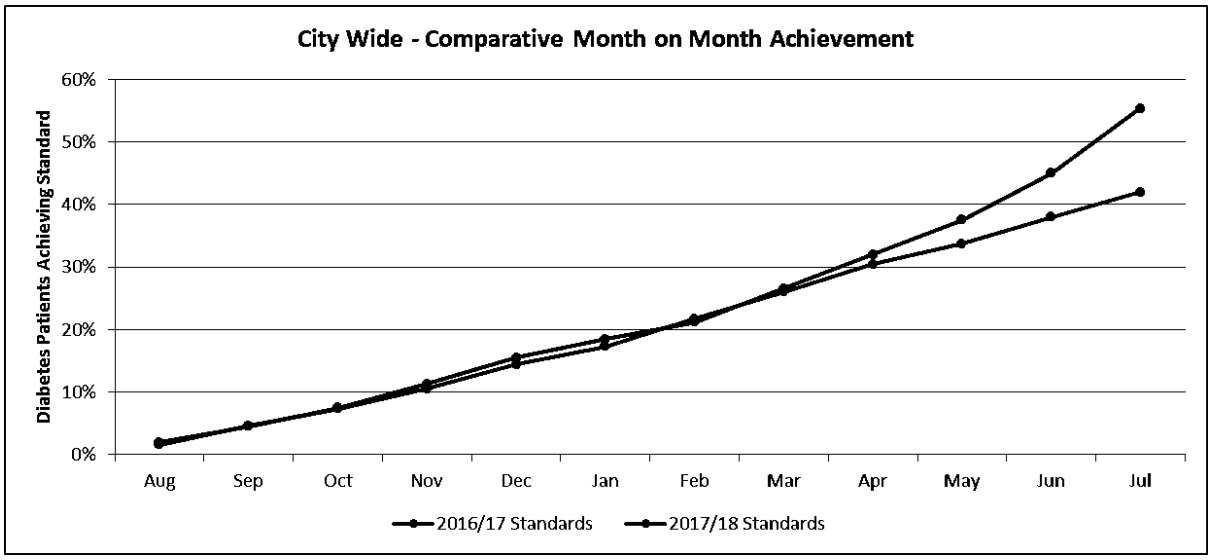
MHCC has been working to standardise care for patients regardless of which GP Practice they are registered with. One way of achieving this is through the Manchester Standards, which all practices have signed up to deliver (see Appendix 3). One of the areas for focus on is achievement of the eight care processes:

1. Blood Pressure measurement
2. Lipids measurement
3. HbA1c measurement
4. BMI measurement
5. eGFR/serum creatinine measurement
6. Urine microalbumin measurement
7. Documentation of foot examination
8. Record of smoking status

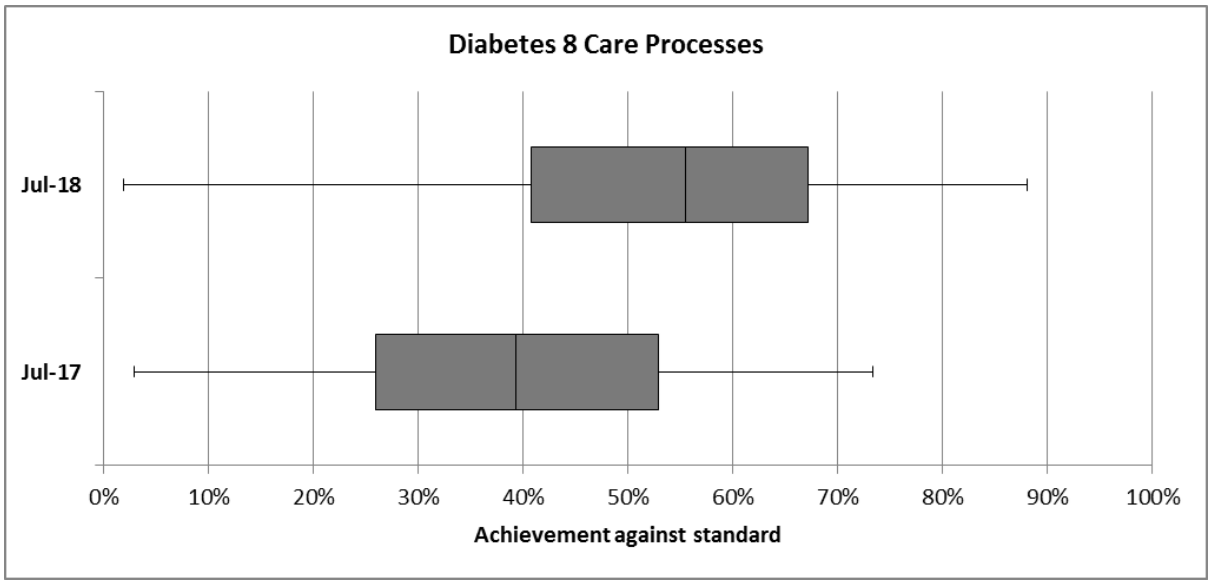
Practices are now formally benchmarked for their performance relating to the achievement of the above essential care processes in diabetes and unlike QOF data there is no scope for exception coding. In addition, key processes such as urine microalbuminuria measurement are included. This measurement was dropped from QOF in 2016 with a subsequent national deterioration in numbers obtaining a microalbumin sample which is often the first sign of any chronic kidney disease and a highly significant marker of long term detrimental outcomes in relation to cardiovascular morbidity and mortality.

To support the implementation of this standard, MHCC has been innovative in designing a standardised template for capture of this data which includes useful links for health care professionals and people living with diabetes. Diabetes UK Information Prescriptions which have been nationally and internationally recognised as gold standards for shared decision making, delivering consistent messages in care and signposting to further support are easily accessed, and there are hyperlinks to other useful advice around sick day guidance in reducing numbers of potential acute kidney injuries, remission information, injection technique guidance and pre-conception advice.

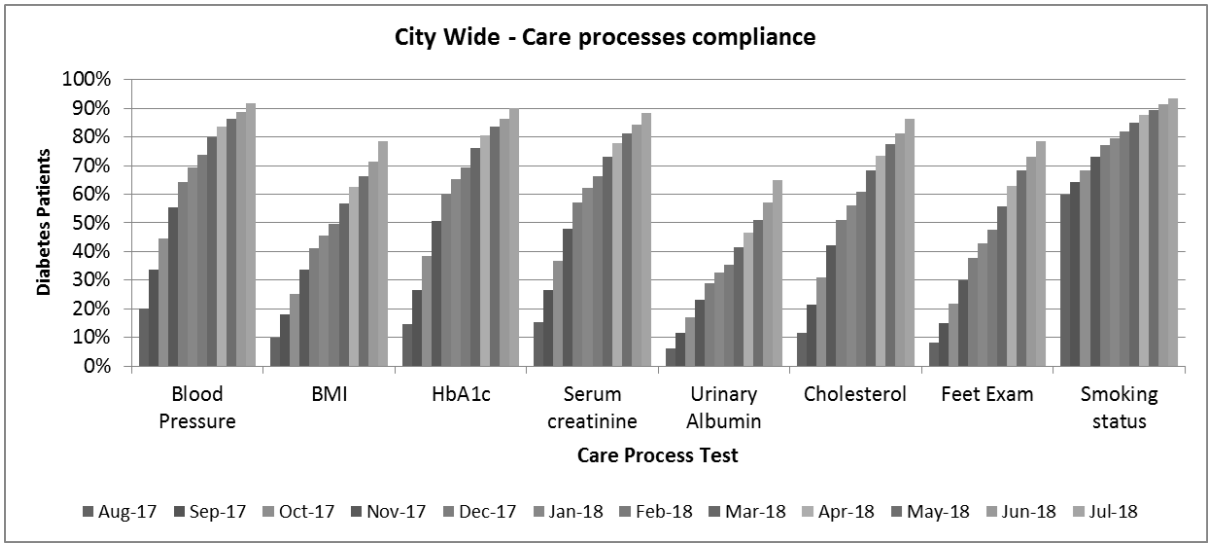
Data below illustrates the positive impacts thus far of the introduction of the standards in improving the numbers of those having received the eight care processes.



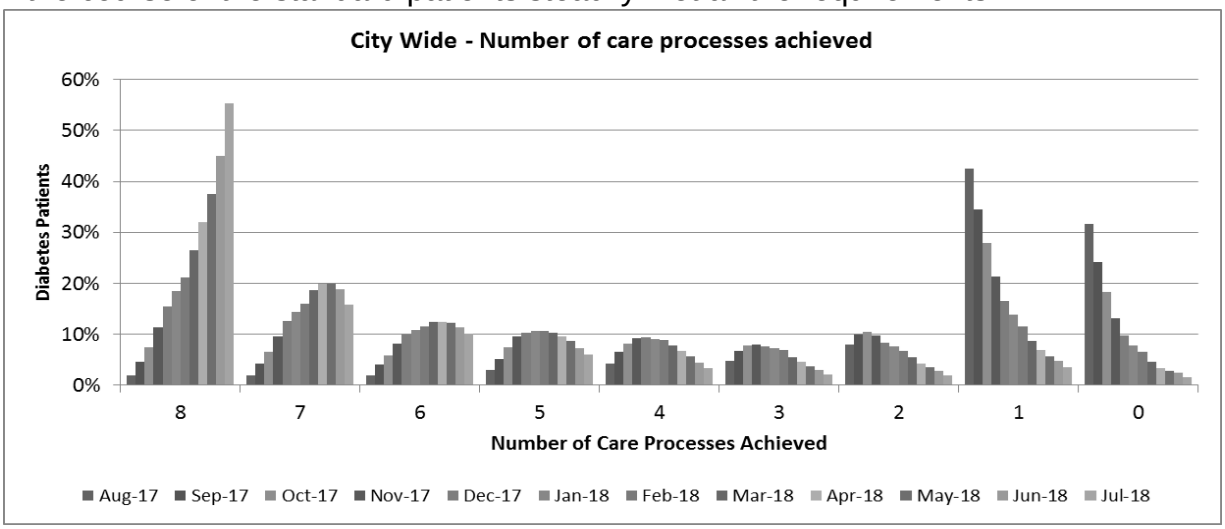
At the end of the 2016/17 standards, 41% of people with diabetes had received their eight-care process. This increased to 55% at the same point in 2017/18.



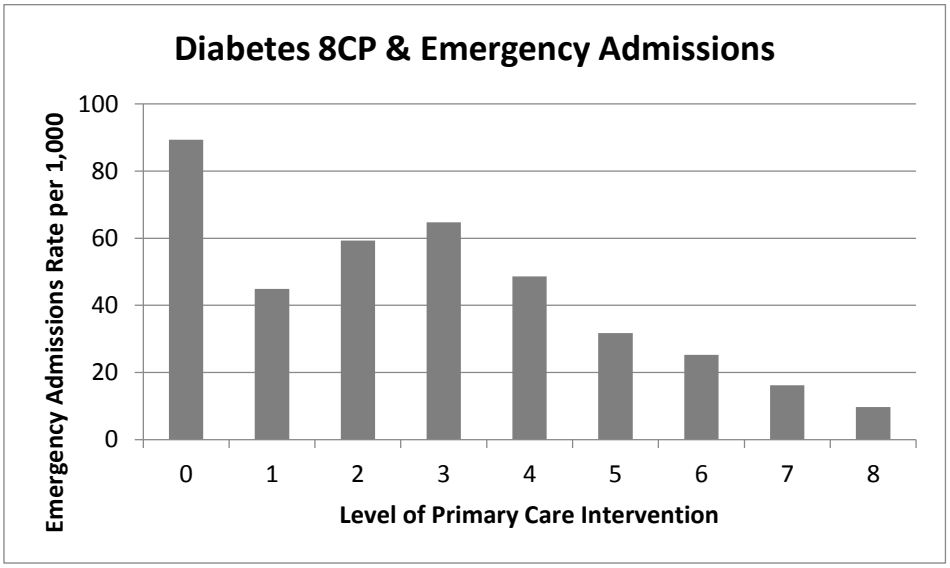
The below chart compares compliance against each of the 8 care processes, demonstrating Urinary Albumin, BMI and Foot Examinations were the least completed care processes.



This information can then be used to see how many patients were some way to achieving the standard, but did not meet all the requirements. This shows that over the course of the standard patients steadily met all the requirements.



Analysis of the 2017/18 standards demonstrates the completion of the 8 processes of care to directly impact emergency admissions activity. Overall, persons who receive more care processes have a significantly reduced rate of emergency admission (as demonstrated in the graph below). Furthermore, the number of care processes also correlates to the average number repeat admissions of a person over that year. Individuals with 0-1 care process completed had on average 3.1-3.4 admissions per individual whilst this significantly dropped to 1.8-1.9 admission per individual who had received 7-8 care process.



Closer analysis of the data identified that those with an increased number of care processes however, did not impact on the average length of stay and cost per admission. Thus, this suggests, patients being admitted with a higher number of care processes are of higher acuity, and require intensive specialist care at secondary care level.

Number of Care Processes	Emergency Admissions	Eligible Patients	Emergency Admission Rate (per 1,000)	Unique Patients	Admissions per patient	Cost per admission	Average Length of Stay
0	61	683	89.3	18	3.4	£1531	4.1
1	50	1,113	44.9	16	3.1	£1331	2.9
2	36	607	59.3	21	1.7	£1596	3.6
3	43	664	64.8	22	1.0	£1522	2.5
4	54	1,111	48.6	25	2.2	£870	2.2
5	66	2,080	31.7	32	2.1	£1900	8.5
6	88	3,481	25.3	49	1.8	£2225	8.0
7	117	7,241	16.1	65	1.8	£2170	5.2
8	133	1,3760	9.7	69	1.9	£1929	4.6

Indicative data analysis for a period before the Primary Care Standards demonstrates a diabetes admission rate of 32 per 1,000 patients, at a total cost of £1.7 million.

Analysis of secondary care data above shows that the diabetes admission rate has fallen to 21 per 1,000 patients, at a total cost of £1.1 million. Over these two periods the number of patients receiving the full diabetes 8 care processes increased by over 2,000.

Whilst we appreciate that there are multiple factors that affect this reduction in non-elective admissions and costs, the implementation of the Primary Care Standards and the subsequent improvement in pro-active, high quality primary care we feel is one of them.

In addition to the work on achieving the eight care processes, MHCC has been supporting educational events to facilitate health care professionals managing those whose measurements sit out with their individualised targets for the care processes. Legacy data pertaining to good outcomes for those with diabetes relate to early and appropriate interventions and helping individuals to meet key treatment targets especially in relation to blood pressure, lipids and HbA1c. Funding for backfill time has been made available by MHCC so that health care professionals can attend educational events to enhance their knowledge on diabetes care processes and management pathways.

National Diabetes Audit
All Practices now submit data to the National Diabetes Audit which is a significant shift in recent years as only 19% of Central Practices submitted in 2016.

https://digital.nhs.uk/data-and-information/clinical-audits-and-registries/national-diabetes-audit

Enhanced Primary Care Service
A service exists to allow for those who have the expertise and skills in injectable therapies initiation to deliver an enhanced service and be reimbursed to reflect the increased time this can often take rather than refer to secondary care services. The service also allows for inter- practice referrals. Seven practices are still actively signed up for this and an update education on insulin therapies in accordance with the enhanced service is planned for April 2019.

A review of the enhanced service for insulin initiation will be undertaken by MHCC Steering group in 2019 with scope to include not just insulin initiation but also insulin management which has proved successful in areas such as Bradford CCG.

The CoDES Team have an insulin choices guide and insulin titration guidance document which has just completed its consultation phase on GMMMG website and will hopefully go live in January 2019 and enhance confidence in primary care of managing those with T2D on insulin therapy.

Pre-Conception
Mothers with diabetes are at increased risk of their infants suffering major congenital malformations, which result in mortality and serious morbidity in infants, Also, still birth, pre-term delivery, surgical delivery and separation from new-born who may need neonatal intensive care. However, with appropriate education and care, such complications can be significantly reduced. Consequently, Manchester have been highly innovative to include this area of work within the Primary Care Standards. Practices will be expected to:

- Complete an accredited e-learning education module to support management of care. This is to ensure HCPs are aware of the importance, impact and management of this patient cohort. It is to be noted that this e-earning module sponsored by Welsh Assembly was co-authored by a practice nurse from MHCC as part of their role as a Committee Member of Primary Care Diabetes Society
- All women with diabetes and of a child bearing age (16-45 years) are to receive awareness, advice and guidance on complications in regards to diabetes related pregnancies (with mindfulness over sensitive areas e.g infertility, history of miscarriage)
- Ensure all women proactively trying to conceive are provided with comprehensive advice, care planning and management in line with NICE guidance.
- Diabetes UK Information Prescriptions relating to pre-conception and pregnancy in diabetes are to be switched on EMIS clinical systems.

As previously mentioned this is an innovative addition to the Primary Care Standards following collaborative work with Diabetes UK (DUK) who if successful may publish as an example of good practice to be adopted by other CCGs.

Community Diabetes Services

North and South Manchester localities have established community Diabetes services. In April 2018 Central Manchester began rolling out a community service pilot.

The three services have different working practices which are summarised below.

Locality	Overview	Coverage
North	The team sit within the community with supervision from consultant diabetoligist	Service works across all practices in North Manchester locality and deliver care to those with T1D and T2D
Central	Community team are employed by MFT. They work in GP practices providing education and mentorship and one day a week they work within	This is a new pilot service for those with T2D which was implemented in April 2018, and is currently working within 7 practices in Central Manchester.

	secondary care team to maintain specialism	
South	Team work within hospital and community to ensure specialism is maintained	The service covers all practices in South Manchester and T1D and T2D.

Community Diabetes Education and Support (CoDES) Team
MHCC funded a two-year community pilot scheme in the Central Manchester area which is ground breaking in that is looking to work with practices to meet their individual needs in relation to diabetes care rather than dictating what needs might be prevalent. The Community Diabetes Education and Support (CoDES) Team is primarily designed to facilitate awareness, enthusiasm, and increase knowledge in relation to diabetes, its prevention and management. It is hoped to increase the knowledge of those living with diabetes, their families and carers and increase healthcare professionals understanding of the optimal management of the condition. The team has so far worked with GPs, practice nurses, district nurses, pharmacists, health care assistants, active case managers and voluntary sectors in delivering education and mentorship alongside seeing people with diabetes who might have otherwise been referred to secondary care. Initial data shows that the average HbA1c of those seen by the team has dropped from 84mmol/mol to 74mmol/mol. The aim is for the pilot to illustrate best practice in facilitating effective, sustainable primary diabetes care so that is might be delivered to a wider population.

Secondary Care Services

People with Diabetes who live in Manchester have access to a number of Secondary Care services.

MFT currently looks after a large population of people with T1D. The Manchester Diabetes Centre specifically provides a clinical service to one of the largest national cohorts of patients using diabetes devices and technology (over 600 patients on insulin pumps and over 300 patients on real-time and flash glucose sensors). The T1D service at Manchester Diabetes Centre (MDC) is nationally and internationally recognised as being at the forefront of the field of diabetes technology. An important milestone was achieved when MDC was chosen as the first diabetes centre in Europe to use the artificial pancreas (automated insulin delivery/closed-loop) in clinical practice in adults with T1D. This and other technological expertise provided by the team has resulted in new patient referrals to the T1D service from other clinical services wishing to avail of specialist input.

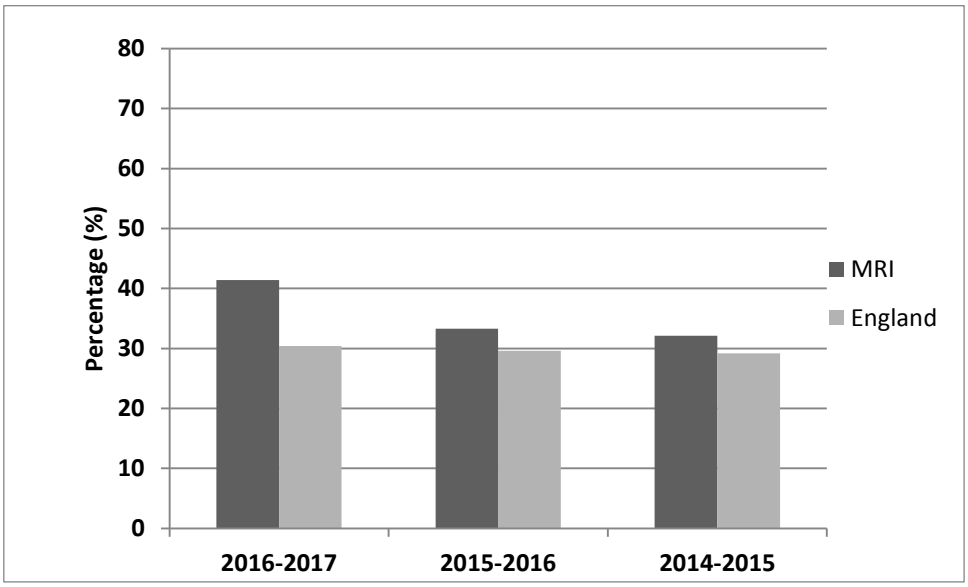
Another important strength is the collaborations with industrial and academic partners, who are attracted by the capabilities and technological interest of the T1D team at MDC. By being actively involved in innovative research, the T1D clinical and research team has collectively contributed over £800,000 to MFT and University of Manchester through research grants in the last 4 years. Ground-breaking research work has been published in high impact factor journals such as the BMJ, Lancet and New England Journal of Medicine.

National Audit data over the past years have reported that MDC has achieved one of the best national outcomes in T1D and pump service. There has been a clear increase in the percentage of people achieving HbA1c <7.5% at MDC, compared to the national data which has not improved (See table below).

This has been recognised by the Clinical Lead of the National Diabetes Audit:
“MRI was among the top 15% for the proportion of patients achieving the glucose control target HbA1c<58mmmol/mol. We are keen to help reduce what is presently an almost 100% variation between services in this measure. It would be tremendously helpful if you could tell us in just a few words what factors you think might have contributed to your success.”

This clinical milestone justifies the work and effort by the T1D on providing excellent service and support to people with T1D. It also provides a service template and model for other diabetes services across Greater Manchester and further afield.

Figure 1: Percentage of people with type 1 diabetes achieving HbA1c <58mmol/l (7.5%) at Manchester Diabetes Centre and England.



Islet Cell and pancreas Transplantation Service
MFT is one of seven UK centres providing an islet-cell transplantation service the people with type 1 diabetes and life-threatening hypoglycaemia that is not responding to optimal medical therapy. With the pump and sensor expertise available, the centre is able to provide seamless care for those with the most problematic hypoglycaemia.

In 2017, MFT was the first English centre to perform a simultaneous islet and kidney transplant – a new treatment for people with type 1 diabetes and end-stage renal disease. MFT now has 18 patients listed for the procedure. This is a major advance especially for those patients who are not physically fit enough to go through simultaneous pancreas and kidney (SPK) transplant.

Inpatient Support

All hospital inpatients teams are participating in the National Diabetes Inpatient Diabetes Audit (NDIA) and it is accepted that improvements in care and safety are of paramount importance. MFT has successfully put forward a business plan to increase DSN ratios and look at extended hours of practice based on NADIA findings. MHCC will continue to strive to look at ways of reducing unplanned admissions, excess length of hospital stay and medicines safety as a matter of high importance in alignment with GM Strategy Group and the recommendations of the diabetes steering group.

Transition to Adult Services

Diabetes transition and young adult care has been prioritised by both the Department of Health and NHS England and whilst effort has been made to generate improved outcomes nationally with the publication of the document "You're Welcome Pilot 2017. Refreshed Standards for Piloting". Despite this transition and young adult services nationally remain varied according to local resources, patient mix and clinical expertise. MFT has been working on transition services Evaluation is expected over the next twelve months.

Health Care Professional Education

Various health care professional education events have taken place in MHCC over the last twelve months to include:

- ✓ The pre-insulin and insulin merit courses in South Manchester
- ✓ Topical Diabetes Study Days (x3) over 30 attendees
- ✓ Primary Care Nurse Event

Moving forwards, MHCC will work in partnership with GM Stratergy Group to formally evaluate programmes of diabetes education and work to put a catalogue of accredited and appropriate learning courses together for HCP in Manchester. Discussions are in progress around EDEN Diabetes Course run from Leicester University (https://www.edendiabetes.com/) to commence in Manchester for Spring/Summer 2019. This may include a specific diabetes education course in collaboration with Trafford Commissioners for health care assistants in that we are looking at optimal ways of using the workforce and forward workforce planning.

The Diabetes UK Annual Professional Conference will take place in Liverpool in March 2019 and see a nurse from Manchester as its first 'practice nurse' chair. The CoDES Team has secured 25 fully funded places for its Primary Care Day on 8th March for Manchester HCP to attend.

The CoDES team have pulled together a resource pack for all health care professionals and includes for example, pathways on the management and treatment of hypertension, raised lipids in diabetes, pharmacological treatment of diabetes, chronic kidney disease management guidelines, foot pathways, erectile dysfunction guidance, and weight management and smoking cessation signposting.

The first specific dedicated diabetes education took place on 6th November at The Primary Care Nurse Event with around 70 nurses in attendance. Further monthly

events are planned with diabetes weaving into this. A Preceptorship Group for newly appointed practice nurses is also being established by MHCC with the first group meeting in January 2019 and again diabetes and the Manchester Diabetes Standards is planned as an educational session. Other sessions are being delivered to GP registrar trainees in February 2019.

Implementation of the Manchester CardioMetabolic Pathway
Key stakeholders from Manchester and ABPI have collaborated in implementing emerging cardiovascular outcome data in relation to treatment pathways for those with co-existing T2D and cardiovascular disease. This is very reflective of the new ADA/EASD diabetes management guidelines and is currently sitting with GMMMG after completing its initial consultation period. The document is expected go live in January 2019 and Manchester will be the first area in the UK to have implemented such guidance.

NHS England are interested in the pathway, the collaborative approach taken with ABPI and are looking to use this as an example of best practice. This will be rolled out in other CCG's.

Structured Education for People with Diabetes

Current practice shows variation in education offered to those living with diabetes across MHCC based on the previous three areas of service delivery, ie North, South and Central Manchester. There are three different offerings for T2D but all three areas provide DAFNE Education for T1D.

Locality	Course offered
North	Desmond
Central	Locally developed
South	X-Pert

Attendance figures are poor but this is perhaps reflective of national difficulties of read coding when someone has attended for education and MHCC are not alone in looking at ways to improved such data capture in practices.

		Locality			
		North	Central	South	England
Type 1	Offered	52.4%	33.3%	39.3%	35.8%
	Attended	No data			4.2%
Type 2	Offered	85.2%	80.35%	81.9%	80.6%
	Attended	3.8%	0.7%	1.0%	7.6%

A priority for MHCC is to re-design the Diabetes Structured Education Programme for T2D to include for those newly diagnosed and those with longstanding T2D especially those who are struggling to meet appropriate targets. Desired outcomes include improved uptake of diabetes education.

- Focus on the delivery of a consistent approach across the city- potentially through the development of DESMOND diabetes structured education for persons with T2D (T1D currently a consistent offer)
- Seek support from community and voluntary sector to increase participant engagement and hard to reach groups, particularly the BME community and deliver education to include novel initiatives such as Bolton CCG's Community Champions Scheme.
- Review and develop education for people from BME groups and those with low literacy ages.
- Provide sessions online through pre-recorded sessions to allow increased benefit
- Develop refresher education courses which looks at a whole person approach
- All providers to work together to share limited resource
- Work in a smart way that utilises existing geographical enablers.

MHCC is currently working collaboratively with the GM Diabetes Strategy Group with widespread representation on its task and finish group for structured education and work from this will directly link to MHCC design. The next meeting is planned for January 2019.

Digital Education

'GM MY DIABETES MY WAY' is a digital application and has received just under £1million in a test bed funding application. The project collaborative was set up, and led by the Greater Manchester & Eastern Cheshire Strategic Clinical Networks (SCN) heavily supported by a diabetologist and GP in Manchester. The aim is to support people with T2D. The app provides a one-stop digital platform designed to help people self-manage their condition more effectively and to provide education on how to do this.

The system is designed to improve outcomes and experience of people with T2D. It will provide them with a single care record which is shared with their clinician(s); thus giving people increased access and control of their own data. The system will allow clinicians to access patient recorded information, with patients' permission, provide them support for clinical decision making, care planning and self-management advice. As well as the one-stop platform, this project will offer a range of other supporting services and materials. In particular, it will combine online interactive support with education, nutrition/dietary advice, reducing depression/anxiety and remote (video) consultations with clinical staff. Also included will be the opportunity to access coaching and dietician advice from health care professionals to ensure tailored individual care. Many people with diabetes do not currently access healthcare support to be able to manage their condition, so this project will aim to engage with hard-to-reach people and investigate the potential to financially incentivise people with diabetes to attend care services.

The project is expected to go live in April 2019 and will be evaluated by the University of Manchester with the intention if successful, to be rolled out across other CCGs in England. MHCC and Primary Care will be key stakeholders in promoting uptake and usage of the digital platform. The all GP Practice event in January 2019 will begin the raising awareness process so that roll out can begin from April 2019.

Medicines Optimisation

Prescribing in Manchester is high, with a significant spend dedicated to diabetes prescribing. Data has identified the number of admissions versus prescribing for diabetes to be inefficient. Compared to GM, Manchester has been identified to have very high prescribing costs, whilst admissions are high.

Work has already taken place to support improvements. This includes:

- Rationalisation of citywide blood glucose testing meters and strip choices to the most cost effective, ISO compliant for testing, accompanied by promotion of appropriate testing frequencies in accordance with GMMMG guidance
- Review of DPP-4 inhibitor prescribing to ensure compliance with the Greater Manchester Medicines Management Group (GMMMG) formulary including a review of renal function.
- Education & training sessions delivered within the medicines management team to support positive outcomes.
- GMMMG one of the first health economies to provide a guidance document on access to flash technology.

In addition, the team have developed a targeted work programme aimed at improving prescribing efficiencies and outcomes across the city to address inequality within Manchester. A five-year work plan has been developed to ensure optimised medicines prescribing is in line with the Greater Manchester Medicines Management Group formulary. Work will take place in a targeted approach within each of the twelve localities based on population need.

To improve outcomes, the medicines optimisation team have linked with the existing neighbourhood specialist teams to develop and deliver the work streams. This includes the:

- Review of HbA1C for patients prescribed oral antidiabetes agents to ensure ongoing benefit gained from the treatment
- Working with practices around GMMMG formulary choices to promote the most cost effective evidence based medicines
- Working with specialist and established neighbourhood teams to align: work plans, reviews, management and education and training across the city.

Amputation Reduction

New lower limb guidelines have been produced proposing a co-ordinated GM-wide lower limb pathway for the assessment, diagnosis and management of patients aged 18 and over who are at risk of lower limb amputation. Implementation will provide comprehensive coverage of lower limb service provision which would greatly reduce lower limb amputations. This sits in alignment with one of NHS England's key priorities to reduce lower limb amputation rates, and links with national initiatives such as the Vascular All Party Parliamentary Group. Although not all lower limb treatment relates to diabetes, and vice versa, there is a huge overlap between the two. This work stream involves joint working to deliver better patient outcomes and aims to link with other initiatives such as MARS (the Manchester Amputation

Reduction Strategy) and StAMP (Stamping Out Amputation One Limb at a Time).

The Manchester Diabetes Steering Group is working collaboratively with The GM Strategy Group and The Manchester Amputation Reduction Team in having devised and now promoting work around appropriate foot pathways. All inpatient and outpatient teams are inputting into the National Diabetes Foot Audit data in trying to ensure that persons with diabetes have an assessment for foot ulceration within 24 hours of admission and appropriate and timely referral to the multi-disciplinary diabetes foot team (MDDFT) and best practice care of any foot disease in accordance with national guidelines.

https://digital.nhs.uk/data-and-information/clinical-audits-and-registries/national-diabetes-foot-care-audit#what-does-it-measure

National Work

Primary Care Diabetes Society

Manchester sees representation of a GP (Naresh Kanumilli) and Community DSN (Nicola Milne) on The Primary Care Diabetes Society Committee. The aim of the Primary Care Diabetes Society is to support primary care professionals to deliver high quality clinically effective care to improve the lives of people living with diabetes

The society represents all healthcare professionals involved with primary care diabetes to include not only general practitioners and practice nurses but also GPSIs, pharmacists, clinical assistants and other allied professionals.

Sharing best practice, promoting and participating in high quality research and audit the Primary Care Diabetes Society delivers high quality contemporaneous education. Affording leadership at local, national and international levels and collaborating with all organisations promoting high quality diabetes care it provides a unique voice for optimal primary care diabetes care.

Diabetes UK

Nicola Milne (Practice Nurse/community DSN) is the current chair of the Diabetes UK Professional Conference Organising Committee for 2019. In 2019 Martin Rutter, diabetolgist from Manchester will take up the role as Vice Chair. Nicola is also a Member of The Diabetes UK Council of Healthcare Professionals which advise DUK on clinical matters and national policies. Naresh Kanumilli is a Diabetes UK Clinical Champion and worked on ensuring full participation in South Manchester in the National Diabetes Audit. His work and enthusiasm on this lead to improvements in audit participation in Central and North Manchester. Naresh has spoken nationally and most recently internationally in USA sharing the good work of GM Strategy Group in improving diabetes care.

Recommendation

The Health Scrutiny Committee is asked to note the content of this report and provide comments on the Diabetes work programme.