

MID & SOUTH ESSEX DIABETES FRAMEWORK

NOVEMBER 2019

CONTENTS

1. 2.		ODUCTION	
	2.1.	BACKGROUND	-
	2.1.		
	2.1.1	DIABETES IN MID AND SOUTH ESSEX	
	2.2.1		
	2.3.	THE PREVALENCE OF TYPE 1 AND TYPE 2 DIABETES	
	2.4.	Risk factors for diabetes	
	2.4.1	. Obesity	7
	2.4.2	2. Deprivation	7
	2.5.	PROJECTED TRENDS	8
	2.6.	DIABETES: PROCESS MEASURES	
	2.6.1		
	2.6.2		
	2.6.3		
	2.6.4		
	2.7.	DIABETES: OUTCOMES	
	2.8.	SUMMARY	12
3.	FUTU	JRE VISION	13
	3.1.	VISION	13
	3.2.	PRINCIPLES OF A SUCCESSFUL DIABETES CARE MODEL	13
	3.3.	GOALS	13
4.	DIAB	BETES FRAMEWORK	
	4.1.	Purpose	
	4.2.	FRAMEWORK	
	4.2.1	ENABLERS	
	4.5.	ENABLERS	
5.	MOD	DEL OF CARE	16
	5.1.	PRIMARY CARE NETWORKS	17
	5.1.1	. Development	17
	5.2.	STP ALIGNMENT	
	5.2.1		
	5.2.2	2. STP Self Care Joint Strategic Needs Assessment (JSNA)	18
6.	PREV	/ENTION & IDENTIFICATION	19
	6.1.	Prevention	
	6.2.	IDENTIFICATION	
	6.3.	Pregnancy	
	6.4.	Undiagnosed Diabetes	
7.		IAGEMENT OF DIABETES	21
/.			
	7.1.	DIAGNOSIS	
	7.2.	ANNUAL REVIEWS	
	7.3.	THREE TREATMENT TARGETS	
	7.4.	STRUCTURED EDUCATION	
	7.5. 7.6.	EMOTIONAL OR PSYCHOLOGICAL SUPPORT PHARMACY AND PRESCRIBING	
_			
8.		IPLEX CARE	
	COM		24
	COM 8.1.	Cardiovascular Disease	25
	8.1. 8.2.	Cardiovascular Disease Diabetic Nephropathy	25 25
	8.1. 8.2. 8.3.	Cardiovascular Disease Diabetic Nephropathy Diabetic Retinopathy	25 25 25
	8.1. 8.2. 8.3. 8.4.	Cardiovascular Disease Diabetic Nephropathy Diabetic Retinopathy Diabetic Neuropathy	25 25 25 25
	8.1. 8.2. 8.3.	Cardiovascular Disease Diabetic Nephropathy Diabetic Retinopathy	25 25 25 25 25

8.	7.	DIABETIC KETOACIDOSIS	
8.	8.	GESTATIONAL PREGNANCY	
8.	9.	DIABETIC EMERGENCIES	
8.	10.	ELECTIVE CARE	
9.	HAR	D TO REACH GROUPS	
9.	1.	CHILDREN AND ADOLESCENTS	
9.	2.	Older People in Residential Settings	
9.	3.	COGNITIVE IMPAIRMENT	
9.	4.	LEARNING DISABILITY (LD)	
9.	5.	ETHNIC MINORITIES	29
9.	6.	Hard to Reach Communities	29
	9.6.2	1. Prisoners	
	9.6.2	2. Homeless and Traveller Communities	
10.	wo	RKFORCE	
10	0.1.	NHS STRATEGIC POLICIES	
10).2.	WORKFORCE DEVELOPMENT	
10	0.3.	GOVERNANCE	
11.	DAT	A AND TECHNOLOGY	
11	1.1.	DATA	
11	1.2.	RESEARCH	
11	1.3.	TECHNOLOGY	
12.	IMP	LEMENTATION	
12	2.1.	Overview	
12	2.2.	STP Workstreams	
12	2.3.	GOVERNANCE AND TIMELINE	
13.	REFI	ERENCES	
14.	APP	ENDICES	

1. INTRODUCTION

Diabetes is a common and complex multisystem condition that affects people of all ages and backgrounds. Whilst many people with diabetes live well, others face significant challenges or develop serious long-term complications that impact on health and wellbeing and contribute to the difficulties of living with a life-long condition.

Mid and South Essex Sustainability and Transformation Partnership (STP) share an ambition to work together and with the local populations to deliver new models of integrated diabetes care. The approach will be based around the needs and locations of people, rather than boundaries of organisations and will focus on prevention and supporting the strengths of communities and individuals.

In addition, the development and subsequent maturity of Primary Care Networks (PCNs) will build upon core primary care services and enable greater provision of proactive, personalised, coordinated and integrated health and social care providing seamless pathways for patients with long term conditions including diabetes.

The overall aim of the diabetes framework is to improve the quality and consistency of services in line with both local and national standards and funding programmes; to deliver best outcomes for people living with diabetes or at risk of developing the condition. Whilst also acknowledging that people, empowered through self-management, can optimise their personal health, well-being and quality of life.

The framework and model of care will assist the STP to identify priority areas over the next 5 years and in doing so will help to achieve the requirements set out in the NHS Long term Plan; influenced by the:

- Changing demographics of diabetes and the economic case for change;
- Move to more person-centred care; and
- Move to a population-based approach to health and well-being.

This document describes the principles that the system wishes to work under, defining how it will enable new ways of working, aligning with strategies under development and already in existence, such as;

- Mid and South Essex Primary Care Strategy
- Primary Care Network (PCN) development
- Mid and South Essex STP Long Term Plan 2019
- NHS Long Term Plan 2019
- Southend, Essex and Thurrock Mental Health and Wellbeing Strategy 2017-2021
- Southend 2050
- Digital Essex 2020;
- The strategy for Acute Service reconfiguration
- Essex County Council Organisation Strategy 2017-2021
- South East Essex Locality Strategy

Once agreed this document will be used as the foundation to enable development of local implementation plans.

2. CASE FOR CHANGE

2.1. BACKGROUND

Diabetes is a lifelong condition that causes a person's blood sugar (glucose) levels to become too high (NHS Net, 2018). Although high blood glucose levels are considered the main abnormality in diabetes, diabetes is more complex than just abnormal blood glucose metabolism alone and treatment of diabetes needs to consider multiple clinical factors. People who live with diabetes must learn to self-manage their condition for the rest of their life.

While services for managing diabetes are making a difference, existing resources are being pushed to the limit as the disease is diagnosed in more people and those already with the condition live longer and develop complications from the disease.

Diabetes can be broadly classified into 4 groups or types:

Type 1 diabetes:

Where the body's immune system attacks and destroys the beta cells in the pancreas that produce insulin. Although it can occur at any age, Type 1 diabetes is the most common type of diabetes affecting children and young adults. We don't know what triggers Type 1 diabetes but some people may be genetically predisposed and environmental factors, such as viral infections, may play a role. Type 1 diabetes is not caused by lifestyle factors and is neither preventable, nor reversible with lifestyle interventions. Type 1 diabetes must be treated with insulin therapy, which is given by injection.

Type 2 diabetes:

Where the body doesn't produce enough insulin or the body's cells don't react to insulin (insulin resistance). A number of factors increase an individual's risk of developing Type 2 diabetes, including age (the risk of developing Type 2 diabetes gets higher as we get older), genetic factors (ethnicity and family history), being overweight or obese, sedentary lifestyle and low levels of physical activity, as well as high blood pressure. Type 2 diabetes can be treated in different ways, including lifestyle interventions, diet and exercise, oral medications and injectable therapies, including insulin.

Type 2 diabetes is far more common than Type 1 diabetes. In the UK, around 90% of all adults with diabetes have Type 2 diabetes but 95% of children and 10% of adults who live with diabetes have Type 1 diabetes

Gestational diabetes (GDM):

Is diabetes that occurs only during pregnancy. Some women have such high levels of blood glucose that their body is unable to produce enough insulin to absorb it all. Gestational diabetes requires highly specialist management during pregnancy but typically resolves as soon as the baby is born. However, women who have had gestational diabetes are at risk of developing Type 2 diabetes later in life.

Specific types of diabetes:

These include different types of monogenic diabetes, cystic fibrosis related diabetes and diabetes caused by rare syndromes.

2.1.1. PRE DIABETES

Many more people have blood sugar levels above the normal range, but not high enough to be diagnosed as having diabetes. This is sometimes known as pre-diabetes and places an individual at increased risk of developing full-blown diabetes. Factors that increase your risk for developing pre-diabetes are the same as those as for Type 2 diabetes.

2.2. DIABETES IN MID AND SOUTH ESSEX

Nationally there are 3.7 million people diagnosed with diabetes and an estimated further 1 million people who have diabetes but are undiagnosed and this is thought to rise to over 5 million by 2025, meaning diabetes is a significant health and resource risk (Diabetes UK 2019).

The costs of diabetes to the person with the disease, to family members and the system are significant. Complications arising from diabetes take both a personal and societal toll. From visual loss to blindness, to lower limb amputation and dialysis, the complications are devastating. They affect productivity, quality of life, and personal relationships.

The cost of Diabetes to the NHS each year is £10 billion and around 80% of diabetes costs are currently being spent on treating its complications, many of which are avoidable (Diabetes UK, 2019). Whilst the figures below are cited from 2010 the position remains largely unchanged.

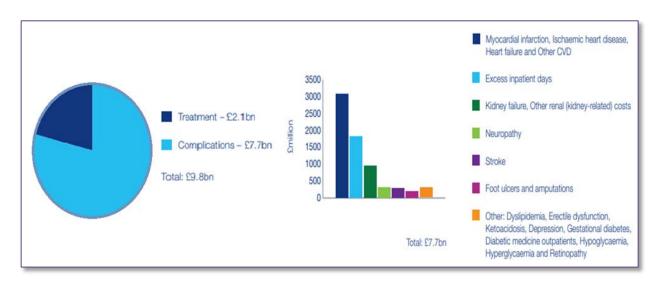


Figure 1: The cost of diabetes and diabetes complications to the NHS in 2010/11

In Mid and South Essex, there are approximately 61,300 people living with either Type 1 or Type 2 diabetes. Around 5300 have Type 1 and 56,000 Type 2. A considerable number of people are thought to be at high risk of developing Type2. If incidence continues at the same rate or more, there will be over 90,000 people living with diabetes in Mid and South Essex by 2025.

Currently, health outcomes vary with some areas having higher than average emergency admissions and major and minor amputations. Good practice exists across the STP and there continues to be a number of initiatives that aim to improve care. However, the initiatives are not always co-ordinated and good practice is not always effectively shared or embedded across the STP.

2.2.1. STP FINANCIAL IMPLICATIONS

In 2017/18, the financial cost of diabetes care across the STP economy was approximately £27.6m, split between community and acute contracts and prescribing. The latter being the largest cost to the system at £19.5m, followed by non-elective inpatients at £2.1m (based upon primary diagnosis) for which amputations and hyperglycaemia were the highest cause of admission.

2.3. THE PREVALENCE OF TYPE 1 AND TYPE 2 DIABETES

At an average of 6.6%, the prevalence of diabetes in the population aged 17 years and older in Mid and South Essex STP is broadly in keeping with the England average of 6.8%. The CCG prevalence range from 6.4% in Mid Essex and Basildon and Brentwood to 7.2% in Castle Point and Rochford as depicted below:

Figure 2: Prevalence of diabetes within the Mid & South Essex STP (NDA 2017/18)

2017/18 Data	Number of Registered Diabetes Patients		Population Prevalence % (17+)	
	Type 1	Type 2	CCG	England
Basildon & Brentwood	1,150	12,550	6.4	
Castle Point & Rochford	850	9,845	7.2	
Mid Essex	1,915	17,885	6.4	6.8
Southend	770	8,565	6.7	
Thurrock	620	7,320	6.7	

In 2015, Public Health England produced population projections for the number of people aged 16 years or older who have diabetes (diagnosed and undiagnosed).² Against 2018/19 prevalence this *potentially* indicates a significant cohort, circa 20,000 individuals, who are currently living with diabetes undiagnosed and unregistered.

Although a significant proportion of diabetics are undiagnosed the National Screening Committee has been unable to find good evidence that screening of people without diabetic symptoms should be recommended.

2.4. RISK FACTORS FOR DIABETES

This section considers obesity and deprivation – two major risk factors for diabetes and poor outcomes. Comprehensive information about the full range of risk factors for all types of diabetes can be found in the NICE Clinical Knowledge Summaries.^{3,4}

2.4.1. OBESITY

Obesity accounts for 80–85% of the overall risk of developing Type 2 diabetes. Data indicates that at a population level an ever-growing proportion becomes overweight or obese as they age. The proportion of adults that are overweight in all but 3 local authorities (Rochford, Chelmsford, Brentwood) was higher than the across England (PH Fingertips).

This is forecast to increase across the STP:

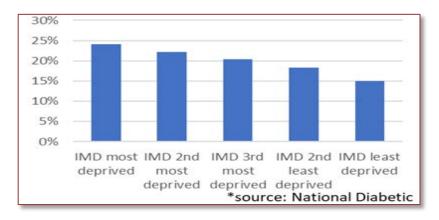
- Southend-on-Sea and Basildon are forecast to continue having the highest and largest increasing proportion of overweight or obese adults.
- Basildon has the lowest proportion of adults physically active and eating healthily, and the largest decrease across the STP since 2015/16.
- Maldon and Thurrock were the only districts of the STP with a higher proportion of overweight or obese children than England in Reception and Year 6, respectively.

2.4.2. DEPRIVATION

Deprivation is associated with risk factors for developing Type 2 diabetes - obesity, physical inactivity and a diet low in fruit and vegetables. Deprivation is also associated with risk factors for poor diabetic outcomes - smoking and hypertension.

The National Diabetes Audit data shows the social gradient in Type 2 diabetes. Those with Type 2 diabetes are more likely to come from areas of higher deprivation (figure 3). The Clinical Commissioning Group (CCG) within the STP with the highest average deprivation (Index of Multiple Deprivation, IMD) is Southend CCG. Mid Essex and Castle Point and Rochford CCGs have the lowest level of average deprivation.⁵

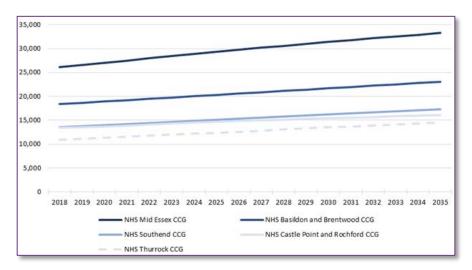
Figure 3: Proportion of type 2 diabetics by deprivation (2015)



2.5. PROJECTED TRENDS

The prevalence of diabetes over time is increasing in line with the national trend. This is driven by an ageing population and an increasing proportion that are overweight or obese. Figure 4 shows Public Health England's predictive model for diabetic prevalence in Mid and South Essex STP.₂





2.6. DIABETES: PROCESS MEASURES 2.6.1. CARE PROCESSES FOR PATIENTS WITH DIABETES AGE 12 & OVER (2017-18)

The proportion of diabetics receiving each of eight care processes recommended by the National Institute for Health and Care Excellence (NICE) are shown for Type 1 and Type 2 diabetics in figures 5 and 6.

In the latest National Diabetes Audit 92% of GP practices in the STP submitted data. This varied from 100% of practices in Mid Essex to 78% in Southend-on-Sea. Recording of the body mass index, urine albumin and foot surveillance are care processes with the most room for improvement.

The audit shows that the proportion receiving all 8 care processes across the STP ranges from 25% to 30% for Type 1 and 35% to 45% for Type 2. The England average is 40% for Type 1 and 60% for Type 2. Although the England figures are poor the STP figures are considerably lower.⁶

Figure 5: Percentage of Type 1 diabetics receiving each of the 8 care processes (National Diabetes Audit (NDA) 2017/18)

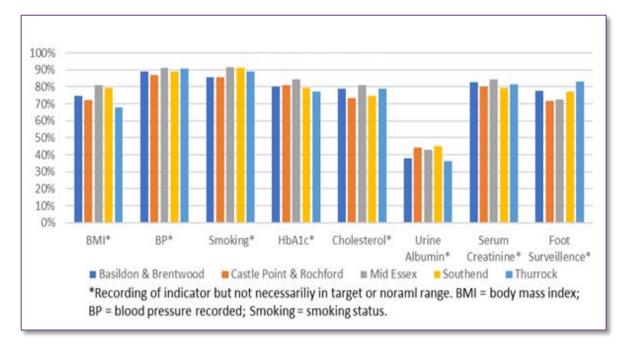
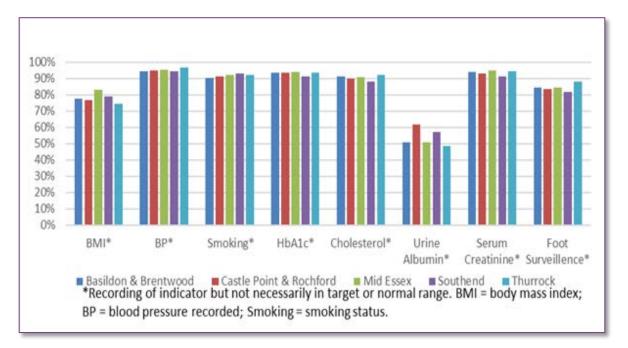


Figure 6: Percentage of Type 2 diabetics receiving each of the 8 care processes (NDA 2017/18)

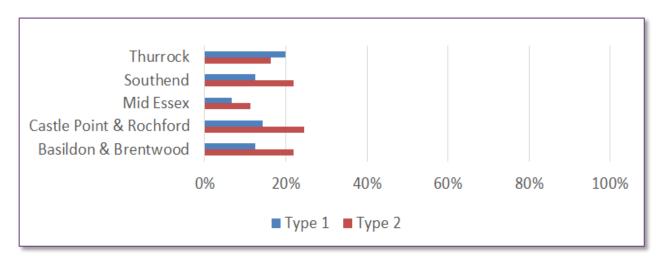


There is a ninth care process, retinal screening, commissioned and run centrally. All five CCGs are above national average (83.3%) for uptake of eye screening.

2.6.2. STRUCTURED EDUCATION 2017-18 - ALL AGES

Diabetes structured education courses deliver information, training and support on how to manage diabetes through diet, physical activity and medication. Essentially, they are providing the foundation support for diabetes self-management. Attendance at structured education sessions are captured in the National Diabetes Audit and shown in figure 7 below.

Figure 7: Percentage attending structured education within 12 months of diagnosis (NDA 2016)



Although the numbers attending structured education is very low the STP does outperform the national averages of 5% for Type 1 and 9% for Type 2. This indicates that although there is great room for improvement this is something many areas struggle with.

2.6.3. TREATMENT TARGETS: PATIENTS AGED 12 AND OVER (2017 - 2018)

The proportion of diabetic patients achieving their treatment targets for HbA1c, blood pressure and cholesterol in 2017/18 are shown in figure 8, using data taken from the National Diabetic Audit. The performance in Mid and South Essex is similar to average in England. The wide variation across GP practices in the proportion of their Type 2 diabetics achieving all three care targets is shown in figure 8 below.

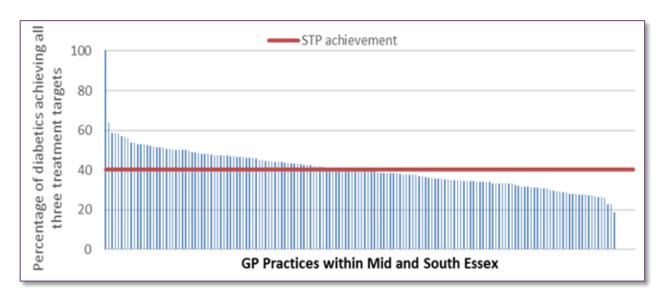
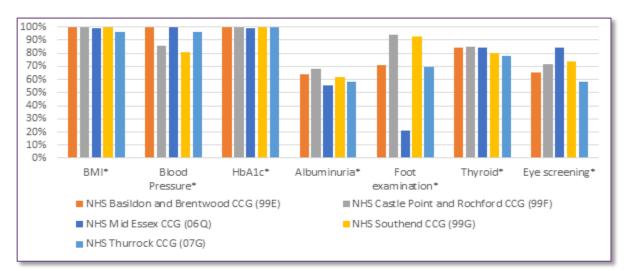


Figure 8: Variation for treatment targets for Type 2 diabetes by GP practice

2.6.4. THE NATIONAL PAEDIATRICS DIABETES AUDIT

The 2017/18 National Paediatrics Diabetic Audit captured information on all children and young people under the care of a consultant paediatrician. The data is submitted by paediatric diabetes units. The percentage of children and young people (aged 12 to 24) receiving the recommended key care processes is shown in figure 9.

Figure 9: Percentage of children and young people receiving each individual key care process, (NPDA 2017/18)



In this audit Mid Essex appears to be an outlier in the STP. In Mid Essex 21.3% of diabetes patients had foot surveillance.

2.7. DIABETES: OUTCOMES

Data is regularly published on foot care of diabetic patients. Other health outcomes for diabetes patients, such as the excess death rate, are not published as frequently, with the most recent publication being 2015-16. For this reason, only foot care outcomes data is included.

Southend CCG is an anomaly when it comes to foot care. Whereas hospital spells for diabetic foot disease in the other CCGs of the STP are in single figures per 10,000 diabetics, Southend's figures are in the hundreds. Such a difference is most likely to be due to a data collection error, unless diabetic patients are systematically managed very differently in Southend compared to the rest of the STP.

The median length of hospital stay for diabetic foot conditions is also different in Southend CCG compared to the other CCGs in Mid and South Essex. The average stay in Southend is shorter. In 2015/16 to 2017/18 the median stay was 4 days in Southend whereas the range in other CCGs was 6 to 12 days. The need to understand how diabetic foot and leg management is managed in Southend CCG is highlighted by the very high rate of major lower limb amputation (defined as above ankle) for diabetes.

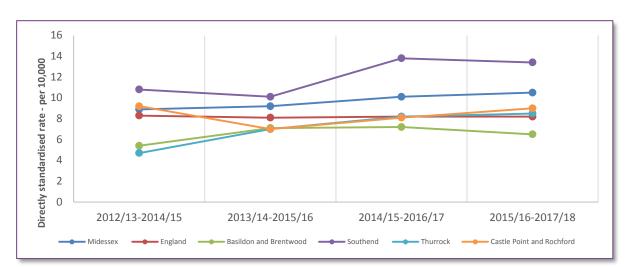


Figure 10: Comparison of Major amputations (2012 – 2018)

2.8. SUMMARY

There are a number of questions raised by our Public Health colleagues following analysis (within Appendix A) which need to be addressed collectively by the system if we are to understand the reasons for the variances across the STP. In doing so this will also provide opportunity to share good practice in high performing areas and agree uniformed approaches were appropriate.

However, it is apparent that there are several areas for improvement which require immediate focus and therefore will be prioritised in the implementation plans. They are as follows:

- Diabetes prevention and identification
- Improving quality and reducing variation in care for all people living with diabetes by:
- Improving the achievement of care processes
- Improving the achievement of treatment targets
- Improving access to structured education
- Reducing variation in adverse outcomes, with diabetic foot disease highlighted

More detail pertaining to these areas can be found in the core domain sections of this document.

3. FUTURE VISION

3.1. VISION

Our vision is to deliver the best outcomes for those across Mid and South Essex affected by diabetes or at risk of developing diabetes.

3.2. PRINCIPLES OF A SUCCESSFUL DIABETES CARE MODEL

In line with the Mid and South Essex STP Long Term Plan, the following conditions are critical for success:

- Collaborative working to improve system outcomes
 - Working in partnership across all sectors to maximise the use of resources and technology, whilst encouraging co-ordination in healthy living, prevention, early identification and control of diabetes
- Leadership
 - o Strong leadership and a joint shared vision for better care
 - Recognising the cultural differences between organisations and focusing on the shared care aims despite differences in language and process
- Integration and co-ordination of diabetes care across settings, technology and sectors
 - Establishing a multidisciplinary approach across providers: co-ordination is essential to ensure appropriate interventions, quality and continuity of care
- Facilitation of person centred care, empowerment and self-management throughout life
 - Ensuring individuals are at the centre of their own health care and should be supported to take responsibility to self-manage to the best of their abilities and personal circumstances
- Reduction of Health inequalities
 - Acknowledging the unique needs of hard to reach populations who experience higher rates of diabetes and complications and more significant barriers to diabetes care and support
- Measurement of health behaviours and outcomes
 - Working with academic health science partners to improve planning and provision and quality of diabetes care by promoting and applying evidence based research to support as well as drive change to enable measurement of progress, relevant data will be collected and analyse

3.3. GOALS

Our approach is about channelling the collective knowledge and energy of people towards common goals and lasting improvement whilst ensuring the following are achieved:

- Person-centred: empowering the individual to adopt a healthy lifestyle and to manage their own diabetes, through education and support which recognises the importance of lifestyle culture and religion.
- **Equitable:** ensuring that services are planned to meet the needs of local populations, including specific groups within the population and are appropriate to individual's needs.
- **Outcomes orientated**; narrowing the inequalities gap between those groups whose outcomes are poorest and the rest: minimising the risk of developing diabetes and its complications and maximising the quality of life for individuals by empowering staff to deliver, evaluate and measure care.

4. DIABETES FRAMEWORK

4.1. PURPOSE

The purpose of the diabetes framework is to improve the health and wellbeing of people with or at risk of developing diabetes; to keep people as healthy as possible for as long as possible and so reduce the incidence and impact of their long term condition. Through this framework we will help to achieve our wider STP organisational purpose which is to reduce inequalities by:

- Supporting healthy lives through prevention of ill health, supporting physical activity, good diet, mental health etc
- Bringing care closer to home, via four 'places' and primary care networks
- Transforming and improving our services

4.2. FRAMEWORK

The diabetes framework is an evidence-based guide designed to support system professionals delivering care and services. *Ten elements* have been identified to describe the diabetes care model. All of these elements are recognised as existing good practice; as a result of a major collaborative effort among leading professionals across America taking into account international diabetes research (including the UK).⁷ The framework has been reviewed by key diabetes professionals across the local system.

The framework will underpin a care model which will promote a collaborative effort to bring together all key requirements to ensure a coordinated and integrated approach; sustaining the provision of better care in a PCN setting.

4.2.1. ELEMENTS AND SUB ELEMENTS

The *ten elements* have been grouped into core domains associated with the key stages of the diabetes pathway i.e. Identification/Prevention/ Management and Complex Care.

Within each of the elements there are *sub elements and requirements* (see Appendix B for the complete framework). Many of these are well known and some CCG areas within the STP will have established several of these requirements already or are currently working towards them. However, all the elements need to be combined to generate improvements which can be embedded and address unwarranted variation across the system.

Ensuring that all framework requirements are met, by its very nature, will improve clinical and patient outcomes, help to drive quality and improve system performance. Where appropriate, key requirements will be taken forward on an STP footprint offering a consistent approach and equity of care.

4.3. ENABLERS

Whilst the framework is to be viewed as a guide, requirements in areas such as workforce and IT, data and technology will underpin success and help to fully realise the model of care. Enablers are factors which are embedded throughout the principles and goals and influence the ability to achieve success. Where appropriate requirements linked to established STP programmes of work will be managed through existing forums working with system/place and neighbourhoods to implement.

4.4. STANDARDS

The diabetes framework forms part of a suite of documents. All diabetes services will adhere to the local and national standards highlighted in Appendix C. Delivery of services against the quality standards set will be subject to robust monitoring and review.

Figure 11: Diabetes Framework: Core Domains, Elements and Sub Elements

Core Domain	Element	Element Name	Sub-Element
ELEMENTS		h.	
IDENTIFICATION	1	Identification of People with Undiagnosed Diabetes and Prediabetes	Whom to screen for diabetes and prediabetes, and how often Screening tests for diabetes and prediabetes Screening for gestational diabetes
PREVENTION	2	Management of Prediabetes to Prevent or Delay the Onset of Type 2 Diabetes	National Diabetes Prevention Programme (NDPP) Weight loss and physical activity for prevention of type 2 diabetes Metformin for type 2 diabetes prevention Cardiovascular disease risk management
M	3	Comprehensive, Patient- centred Diabetes Care	Consideration of health literacy and numeracy Consideration of patient self-management resources, including ability to afford care Annual comprehensive diabetes checks Type 1 specialist management Comprehensive and coordinated management of co-morbidities
A N	4	Ongoing Self-management Education and Support for People with Diabetes	Definition and purpose of diabetes self-management education and self-management support How to provide self-management education and support Community-based and other resources
A G E	5	Lifestyle Modification for People with Diabetes	Provide nutrition therapy and monitoring Helpful eating behaviours and practices for glycaemic control Encourage physical activity Goal setting Appropriate precautions
M E N	6	Overweight and Obesity in the Management of Diabetes	Assessment of overweight and obesity Lifestyle interventions Helpful behaviours and practices for weight loss Pharmacotherapy Bariatric surgery
Т	7	Blood Glucose Management for People with Diabetes	Benefits of blood glucose control Risks of blood glucose control Treatment goals Blood glucose management strategies Blood glucose assessment
	8	Multifactorial Cardiovascular Disease Risk Reduction	Evidence for blood pressure control Evidence for lipid therapy Smoking cessation Multiple risk factor reduction and the importance of assessing medication adherence
COMPLEX CARE	9	Diabetes Microvascular Complications and Treatment	Hypoglycaemia Diabetic ketoacidosis (DKA) Nephropathy
HARD TO REACH GROUPS	10	The Needs of Special Populations with Diabetes	Children and Adolescents Women of childbearing age Cognitive Impairment Leaming Disability Older adults High-risk racial and ethnic groups
ENABLERS		74	
WORKFORCE	11	How the health and social care workforce can meet the needs of those with Diabetes	Leadership and Management Skills, Competences and Roles Training and Development Collaborative working
DATA & TECHOLOGY	12	How the use of data and technology can meet the needs of those with Diabetes	Making better use of Data Creation of Single Shared Care Record Use of technology to maximise patient care and services

5. MODEL OF CARE

The diabetes framework will be delivered within a model of care based on 4 tiers: broader determinants, including prevention; primary care (neighbourhood /practice level), community care via a collaborative service (PCN/place) and hospital care. According to their individual needs, a person with diabetes may receive care in all of these settings. The majority of diabetes care is currently provided in primary care and community settings; and around 80% of care will be provided in these settings in future.

The collaborative service will be provided by a comprehensive diabetes skilled multidisciplinary team. Collaborative care by its definition requires all professionals involved in a person's care to work in partnership, including generalists, specialist, other health professionals and support staff, with the person living with diabetes and his/her family at the centre of their care. The workforce will be upskilled within the collaborative service to provide more specialist care in the community.

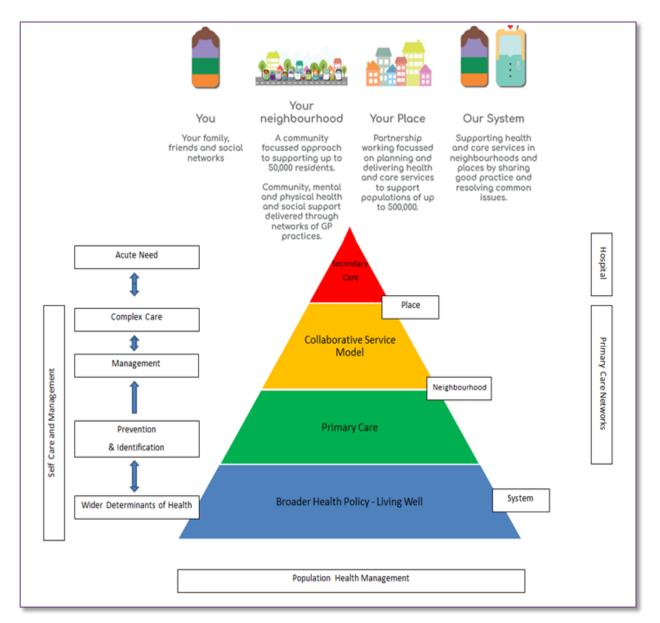


Figure 12: Diabetes Model of Care

Where appropriate the STP will agree upon a Mid and South Essex approach to elements of the model such as the wider determinants of health. All tiers will be underpinned by a population health management approach led by the system with self-care and management being a fundamental component throughout.

5.1. PRIMARY CARE NETWORKS

Primary Care Networks will form the vehicle for delivering collaborative working amongst front-line staff. Through PCNs we deliver the 'triple integration' of primary and specialist care, physical and mental health services, and health with social care. Through PCNs we move to a GP led model of care focused on improving population health and wellbeing, and supporting provider sustainability. Primary Care Networks will be the foundation stone on which local places will thrive and the key provider vehicle for delivering local services.

We see PCNs as more than just a collaboration amongst practices. At their core they will become a collaboration amongst those who positively impact on their populations health and wellbeing. This includes other significant incumbent providers of health and care, education providers, major employers, the third sector and community groups. PCNs are seen as a vehicle to bring together the wider network of primary care providers - community pharmacists, optometrists and dentists.

5.1.1. DEVELOPMENT

PCN development will be evolutionary. It is accepted that sustainable change will not be achieved through a short-term, rapid, development programme, but one that take all partners on a journey that results in embedded cultural change, new ways of collaborative working and collective ownership.

For 2019/20, the first year of a five-year development programme, the focus will be to ensure:

- Practices within the PCNs are clear on the long-term ambitions
- PCNs take 'a seat at the table' and ensure they have the required competencies
- The role of the Clinical Director is clear and there is good succession planning
- True collaborative multi-disciplinary working not "the MDT"

Whilst PCNs are in the early stages of development the STP will continue to work with the system at both place and PCN levels to support and embed change and ensure the key requirements of the framework are delivered to improve local population health.

The 5 year aim is to move towards the model of care as outlined above, the commercial vehicle to do so is yet to be determined.

5.2. STP ALIGNMENT

Significant work is underway at an STP level to support the Long Term Plan. The intention of the diabetes framework and model of care is to compliment, support and, where appropriate, provide opportunities to act as a 'test bed' for proposed approaches.

Key workstreams of note are:

5.2.1. POPULATION HEALTH MANAGEMENT (PHM)

A Population Health Management approach develops and maximises capacity and capabilities from across the STP around infrastructure, intelligence and interventions. These building blocks can support the use of linked data to provide analytics for the targeted use of evidence-based clinical and non-clinical support for the population to manage their own health, to prevent avoidable illness and improve their health and wellbeing.

The strategic aims of the STP's PHM programme are:

- Collaboration a system which works as 'one' to deliver the best outcomes for the population, through the sharing of data and resources through strong leadership at all levels
- Data maximising the data assets from across the system partners by linking at record level to generate valuable insight to truly understand the needs of the population
- Integration evidence-based interventions, applied from person to system level which proactively address needs and are outcomes focussed

 Empowerment – establishing new relationships between organisations, workforce and the population where people feel in greater control of their own health and care and practitioners have the time, resources and skills to support a strength-based care model

5.2.2. STP SELF CARE JOINT STRATEGIC NEEDS ASSESSMENT (JSNA)

The NHS healthcare system recognises that a shift away from the' medical model' and towards one that takes into account the expertise and resources of the people with long term conditions (LTCs) and their communities is now required.

The STP Self-care JSNA will provide an evidence base for the development and improvement of care and the ways in which we support and empower patients to self-manage long term conditions (LTCs). Diabetes is one of three LTC focus areas and the recommendations from this work will be considered with partner organisations and adopted where appropriate, at either a PCN and/or Place level.

STP Offer:

- 1. Alignment with the STP Population Health Management and Prevention strategy and Self Care JSNA to embed a more proactive approach to person centred prevention and early intervention practice.
- 2. Development of professional-facing information intended to inform and support professionals to deliver health improvement.
- 3. Promotion of public-facing information intended directly for members of the public appropriate to needs, age, language and culture.
- 4. Increased use of risk screening tools within primary care with a focus on high risk groups
- 5. Increased referral to the National Diabetes Prevention Programme for those at risk of developing Type 2 diabetes.
- 6. Appropriate diabetes testing for all pregnant women

Understanding the wider context in which health and well-being is shaped is crucial if we are to effectively tackle the challenges of diabetes. Factors that play a part in determining our health and well-being include income, employment status, educational attainment, and our living, working and environmental conditions, all of which impact on the level of control people have in their lives and the choices they are in a position to make. The impact of lifestyle factors is a major contributor to the increasing prevalence of Type 2 diabetes.

6.1. PREVENTION

To prevent onset of diabetes the STP ambition is to concentrate on person centred care and selfmanagement approaches throughout a person's lifetime to ensure:

- Individuals are at the centre of their own health and healthcare
- People are supported to take responsibility for their own care

Type 1 diabetes is caused by a loss of the body's ability to produce insulin and can only be managed by replacement insulin therapy. At present, there are no interventions known to prevent or reverse Type 1 diabetes. We will continue to ensure we are kept abreast of national changes to this pattern of thinking.

The onset of Type 2 diabetes, can in many cases, be prevented or delayed. The prevalence of risk factors and expected population ageing, means it is essential that we support and encourage diabetes prevention. There are a number of <u>risk factors for diabetes</u>, some of which are preventable, such as weight gain around the middle (central <u>obesity</u>), high cholesterol/triglyceride levels and <u>high blood pressure</u>. <u>Losing weight</u>, adopting more activity into your day, stopping <u>smoking</u> and reducing alcohol intake can also help towards lowering the risk of developing Type 2 diabetes mellitus and improving all-round health.

Multiple strategies are needed in multiple settings if we are to slow the predicted prevalence growth. Many of the risk factors for diabetes are common to other disease areas, such as heart disease, stroke and cancer; therefore it is clearly worthwhile having cross-cutting prevention strategies, as well as targeted approaches to diabetes.

The framework and model of care promotes an integrated working with partnership organisations to reach across the entire STP population, promoting healthy living for people of all ages, as well as developing a portfolio of targeted interventions, including the National Diabetes Prevention Programme (NDPP), aimed at supporting people identified as being at high risk of developing Type 2 diabetes.

6.2. IDENTIFICATION

Raising awareness of the symptoms and signs of diabetes among the public, particularly among sub-groups of the population at increased risk of developing diabetes, and among professionals can help to ensure that people with symptoms and/or signs of diabetes are identified as early as possible.

People who have multiple risk factors for diabetes – such as family history, ethnic background, obesity, increasing age – need advice and support to reduce their risk of developing diabetes and information about the symptoms and signs of diabetes. In addition, opportunistic screening (testing for diabetes when people are in contact with health service for another reason) will identify some people within high risk groups who do not know that they have the condition.

All health professionals are in a position of identifying those at risk of diabetes. Dentists and opticians are in a good position to identify people with periodontal disease or retinal haemorrhage who may be showing risk factors for diabetes but who have not previously been identified.

Use of risk stratification tools within Primary care focuses on individuals at highest risk of diabetes, such as those with a family history of the condition or impaired glucose tolerance. This approach includes more focused interventions, such as health education and behaviour modification.

6.3. PREGNANCY

Women with pre-existing diabetes have more risks to themselves and their babies during a pregnancy. It is important that steps are taken to mitigate risk prior to pregnancy (i.e. through preconception care), during pregnancy and following delivery. Post-partum care may help to reduce the risk of maternal Type 2 diabetes in later life.

6.4. UNDIAGNOSED DIABETES

People with undiagnosed Type 2 diabetes are unaware of the condition and are therefore not accessing the necessary care. They may already have complications of their diabetes. A survey of Diabetes UK members diagnosed with Type 2 diabetes in a 12 month period (2009), found only 18% were diagnosed as a result of a routine test offered by the GP or practice nurse and 37% were diagnosed as a result of having a test for another condition or problem. 56% were "highly unaware" or "unaware" of the symptoms. Only 16% were diagnosed because they asked their doctor for a test or went to the GP because they had symptoms of diabetes.

By providing information, increasing awareness and early detection of Type 2 diabetes, people can be supported to make informed health-related decisions and actions, and this will improve health literacy.

STP Offer:

- 1. Enhanced and improved access to structured self-management education programmes for people with diabetes, including the newly diagnosed.
- 2. Annual or more frequent examination, as clinically indicated, offered to all people with diabetes.
- 3. Variation in annual care processes and treatment targets is reduced across Mid and South Essex.
- 4. Psychological and emotional support assessed as an annual care process.
- 5. Consistent high quality information provided to all at appropriate times in a variety of formats.

Supporting people to manage their condition is a fundamental element of good diabetes care and central to the building of relationships in which people living with diabetes can understand and take control of their condition more effectively.

Helping people to understand their diabetes and recognise its effects and how these can be managed better, can help them develop the confidence to take increasing responsibility for managing their condition. For the individual this can lead to better informed lifestyle choices and diabetes control, reduced risk of complications, fewer GP visits and hospital admissions as well as an improvement in quality of life and general well-being.

7.1. DIAGNOSIS

Following diagnosis, people with diabetes will be able to access high quality information, treatment and care and be supported to stay healthy and so minimise the incidence of complications. Information and education about the purpose and importance of medication should be stressed. Diabetes UK produces good quality information for people with diabetes through literature, a website and a helpline and people should be signposted to this organisation for support.

All people with diabetes will be offered advice about reducing their risk of long term complications and receive regular surveillance of risk factors. When risk factors are detected people should be supported in controlling these risks and, at an early stage, offered effective treatment to stop the progression of complications.

7.2. ANNUAL REVIEWS

Only one in five Type 1 and two in five Type 2 people are meeting their treatment targets that will reduce their risks of complications. (Diabetes UK, 2019).

Figure 12: 15 Healthcare Essentials (Diabetes UK)



People with diabetes will continue to be offered a number of annual healthcare tests as part of their ongoing care in accordance with NICE guidance. Diabetes UK, recommends the achievement of the **15 care processes** as a gold standard and have developed materials to help people with diabetes understand what they should expect of their care.

The Quality and Outcomes Framework (QOF) has been used to support improvements in care for diabetes and has resulted in improvements however, in some CCG areas, practices are achieving full QOF payments despite consistent underachievement in a number of the diabetes performance indicators (*see 2.6.1*). In Mid and South Essex, work will be done to improve the proportion of people receiving all care processes.

The Framework supports the gold standard approach, expanding traditional care processes to ensure learning and education and psychological and emotional support is considered annually as part of the care planning process. This will be reflected in an agreed and shared care plan in an appropriate format and language, where appropriate, parents and carers should be fully engaged in this process.

7.3. THREE TREATMENT TARGETS

NICE Guidelines recommend treatment targets for glucose control, blood pressure and cholesterol to help reduce the risk of future complications. If a person has prolonged periods of time with higher than normal glucose levels, high blood pressure or high cholesterol, it can eventually cause problems. Although local initiatives are underway to improve the attainment of the **3 treatment targets** we will be much more ambitious in our developmental plans and share best practice learning across the STP.

7.4. STRUCTURED EDUCATION

Structured education improves diabetes management and is likely to reduce diabetes complications. It leads to lifestyle changes conducive to good health, such as better nutrition and increased physical activity as well as improved compliance with medication and care processes. Structured education should be available to those newly diagnosed and existing people who have not previously attended.

There is provision of structured education within all CCG areas for people with Type 2 diabetes, although uptake remains suboptimal and efforts are being made to improve engagement and promote the importance of structured education as an element of routine diabetes care. The STP is to pilot electronic structured education via means of an app. If shown to be effective, electronic structured education *could* be offered to all those with diabetes, in addition to traditional face to face courses.

7.5. EMOTIONAL OR PSYCHOLOGICAL SUPPORT

Emotional or psychological problems are experienced by at least four in ten people with diabetes at any one time. This reduces their ability and motivation to self-manage, leading to poorer health outcomes and reduced quality of life (Diabetes UK). There is good evidence that dedicated mental health provision as part of an integrated service can substantially reduce these poor outcomes. Pilot schemes show providing such support improves health and cuts costs by 25 per cent (NHS 2016).8

People with diabetes experience disproportionately high rates of mental health problems such as depression, anxiety and eating disorders. A survey undertaken by Diabetes UK in 2015 found that 76 per cent of people with diabetes who needed emotional or psychological support from a specialist were not offered it.

At present, the availability of psychological support for people with diabetes differs across the STP. There is a need to raise awareness of the 'hidden problem' of depression and other psychiatric illness in diabetes and to introduce more active monitoring of psychological wellbeing.

Diabetes UK has introduced a new tool, Diabetes and Mood Information, and encourages mental health to be discussed at every appointment, referring the individual to local Improving Access to Psychological Therapies (IAPT) where appropriate.

7.6. PHARMACY AND PRESCRIBING

Due to the nature of diabetes and its management for the prevention of the development and progression of complications, there is a tendency for people with diabetes to receive polypharmacy. This may include treatment for hyperglycaemia, hypertension or hyperlipidaemia and symptom management of complications.

For many patients polypharmacy might be entirely appropriate.⁹ There are many conditions in which the combined use of two, three or more drugs is beneficial and can improve outcomes especially in older people with multiple co-morbidities (for example, type 2 diabetes complicated by coronary heart disease and hypertension). However, it is important to consider whether each drug has been prescribed appropriately or inappropriately, both individually and in the context of all the drugs being prescribed.¹⁰ See Appendix D Prescribing Algorithm.

Optimising prescribing in polypharmacy involves encouraging the use of appropriate drugs, in a way that the patient is willing and able to comply with, to treat the right diseases.

The community pharmacy is often a useful resource of advice and support for people with Type 2 diabetes. The average diabetes patient is known to visit the pharmacist between three to eight times more often than other patients. This creates various opportunities for community pharmacists to play an important role in the management of diabetes and its complication.

STP Offer:

- 1. Variation in quality of care, access and treatment is reduced across Mid and South Essex.
- 2. People at high risk of developing lower limb problems are identified and managed within a revised foot pathway to ensure they receive the right care, at the right time and at the right place.
- 3. Access to personal insulin pumps and technologies are made available to those suitable.
- 4. Diabetes specialist leads are available in the community to advise and help treat those with complex care needs.
- 5. In-hospital care for people living with diabetes but admitted for other reasons is improved by enhancing the Specialist Diabetes Teams to provide care, advice and support.

Diabetes is a major cause of premature mortality with over 500 premature deaths per week and doubles the risk of cardiovascular disease (heart attacks, heart failure, angina, strokes). For those people with Type 1 diabetes the risk increases four fold.

Diabetes is the most common reason for end stage kidney disease and the most common cause of blindness in people of working age. Up to 169 people per week have a limb amputated as a result of diabetes. Of those who experience a major amputation around half will die within the first two years. (Diabetes UK, 2019). In many cases amputation is avoidable.

Complications as a result of diabetes have a profound impact on those living with them, as well as their families and their carer's. The results of complications are often life changing and people require considerable support from all involved in looking after them.

Prevention of complications will be assisted by tackling inequalities. The most deprived in the UK are 2.5 times more likely to have diabetes. Deprivation is strongly associated with higher levels of obesity, physical inactivity, unhealthy diet, smoking and poor blood pressure control. These factors are inextricably linked to the risk of serious complications amongst those already diagnosed.

Evidence from landmark research studies in diabetes care, confirm that active management of the major risk factors, glycaemic (blood sugar) control, blood pressure and cholesterol, along with management of lifestyle factors such as diet, physical activity and smoking cessation, reduce the risk of long-term diabetes related complications .11

For those people who do develop long term complications, we must ensure they are identified quickly and they should receive effective treatment and care including referral to specialist services where appropriate.

The most common long-term complications of diabetes include:

- Cardiovascular Disease
- Diabetic nephropathy
- Diabetic retinopathy
- Diabetic neuropathy
- Limb Amputations
- Erectile Dysfunction
- Diabetic Ketoacidosis
- Gestational Diabetes

8.1. CARDIOVASCULAR DISEASE

Cardiovascular disease (CVD) accounts for over half of all deaths in people with diabetes and those people are twice as likely to die prematurely from CVD than those without diabetes. The death rate can be halved by managing cardiovascular risk factors more effectively. This framework aims to support patients and service users to enable complications of the disease to be prevented or delayed by ensuring that those who develop Type 1 diabetes achieve treatment targets, while people with Type 2 diabetes are diagnosed early and treated effectively.

8.2. DIABETIC NEPHROPATHY

About 40% of people with diabetes will develop diabetic nephropathy. This can be reduced by good glycaemic control, blood pressure control and, for those with a diagnosis of nephropathy or micro albuminuria, treatment with ACE-I or ARB drugs. About one in eight adults have masked hypertension. This is a risk factor that is often missed. Diabetic and renal services will work together to manage people 'at risk' early with the aim of preventing progression to end stage renal disease.

8.3. DIABETIC RETINOPATHY

Diabetic retinopathy is a leading cause of blindness in the UK. People with diabetes have an increased risk of glaucoma. For the routine eye examination at an optometrist, guidance from the College of Optometrists state that risk factors for glaucoma include being over the age of 40 and the risk increases with every decade of life thereafter. Following diagnosis individuals are referred to the National Diabetic Eye Screening Programme and recalled annually thereafter. Attendance across the STP remains high.

8.4. DIABETIC NEUROPATHY

Diabetic neuropathy is a serious and common complication of Type 1 and Type 2 diabetes. It's a type of nerve damage caused by long-term high blood sugar levels. The condition usually develops slowly, sometimes over the course of several decades. Diabetes can cause neuropathy as a result of high blood glucose levels damaging the small blood vessels which supply the nerves. This prevents essential nutrients reaching the nerves.

8.5. LIMB AMPUTATIONS

Diabetic Foot disease is one of the most significant and serious adverse outcomes that can affect an individual living with diabetes. Prevention and early intervention are fundamental elements in minimising the risk, including lower extremity amputation. Ensuring that people living with diabetes receive an annual foot check, with the opportunity for education in foot self-care is one of the essential core care processes.

We will have a consistent model across the STP ensuring that our diabetes foot service includes a screening service, a foot protection service for those identified as having a higher risk of ulceration and a multidisciplinary foot service for managing active foot problems, working within agreed pathways to provide integrated seamless care.

8.6. ERECTILE DYSFUNCTION

Erectile dysfunction has an increased prevalence in men with diabetes. Even when men are affected by erectile dysfunction, they are often reluctant to mention it to the clinician. As part of undertaking the care processes, clinicians will proactively ask about erectile dysfunction.

8.7. DIABETIC KETOACIDOSIS

Diabetic ketoacidosis (DKA) is a serious problem that can occur in people with diabetes if their body starts to run out of insulin. It can be life threatening if not identified and treated quickly. DKA mainly affects people with Type 1 diabetes but can sometimes occur in people with Type 2 diabetes.

8.8. GESTATIONAL PREGNANCY

As many as 9 out of every 100 pregnant women will develop a condition known as gestational diabetes mellitus. A number of factors increase the risk of someone developing gestational diabetes e.g. certain ethnic backgrounds, being overweight, having a family member with diabetes, being aged 25 or older, having gestational diabetes in an earlier pregnancy.¹²

Some women have such high levels of blood glucose that their body is unable to produce enough insulin to absorb it all. Gestational diabetes requires highly specialist management during pregnancy but typically resolves as soon as the baby is born. However, women who have had gestational diabetes are at risk of developing type 2 diabetes later in life.

Despite considerable advances in the management of pregnancy in women living with diabetes, this remains a high-risk condition requiring particular care. Diabetes in pregnancy can result in higher rates of congenital malformations, perinatal and neonatal mortality and stillbirths than the background population. More than one third of women with diabetes in pregnancy have babies that are large for gestational age.

To improve outcomes and management of gestational diabetes we will review and improve access to structured preconception services and monitor quality standards.

8.9. DIABETIC EMERGENCIES

Some people with diabetes will encounter difficulties with their treatment which lead to diabetic emergencies. The acute complication of diabetes can lead to disability or even death. Ketoacidosis is the main cause of death and recurrent hypoglycaemia is a cause of profound morbidity and occasional mortality.

Quality of life is affected by recurrent emergencies and recurrent hypoglycaemia may cause restrictions on lifestyle. The prevalence of diabetic emergencies can be reduced through self-management and education of both people with diabetes and healthcare professionals on how to avert hypoglycaemia episodes. All hospitals should have a protocol or guideline for the management of diabetic emergencies. People presenting with diabetic ketoacidosis should be managed by a hospital team experienced in the up-to-date management of diabetes and its acute complications.

8.10. ELECTIVE CARE

People with diabetes are admitted to hospital twice as often and stay twice as long as those without diabetes. However, inpatient care for people with diabetes is too often not well managed, especially when diabetes is not the primary reason for admission. There is a need for recognition of the

particular needs of people with diabetes when they are admitted to hospital. This can be achieved through greater awareness and knowledge amongst hospital staff and teams.

STP Offer:

- 1. Appropriate diabetes services are in place to enable people from hard to reach groups to access required services.
- 2. Clearly defined strategies to target hard to reach groups.
- 3. Care home staff educated around the needs of residents with diabetes.
- 4. Individuals with a cognitive impairment diagnosed with diabetes are supported by appropriately skilled teams to achieve treatment and goals.

The management of diabetes is becoming increasingly challenging to treat and there are many pressures in primary care to achieve targets. Population trends indicate that diversity is increasing, and this may mean that there will be widening gaps in the health needs of different groups, leading to further challenges for healthcare providers. Managing diabetes in hard-to-reach groups is a significant part of this due to the different needs that exist in each.

There are several groups of people who are at a high risk of developing diabetes and/or who are in a position where diagnosis and management of diabetes is more difficult or inadequately provided.

These groups, listed below, require a targeted and specific approach:

- Children and adolescents
- Older People in Residential Settings
- People with Cognitive Impairment
- People with Learning Disabilities
- Ethnic Minorities
- People from Hard to Reach Communities

9.1. CHILDREN AND ADOLESCENTS

Most children with Type 1 diabetes are diagnosed between the age of 10 and 14 however Type 2 is on the increase but still very rare. (Diabetes UK, 2019). A key factor in reducing the impact of diabetes is good control of blood sugar levels without frequent disabling hypoglycaemic events. All healthcare professionals should understand the symptoms of Type 1 diabetes and be able to identify when a child or young person should be tested using blood capillary glucose test. Primary care staff must refer suspected cases of diabetes immediately (same day) to appropriate paediatric inpatient centres.

Transition from paediatric to adult services requires a flexible approach which meets the needs of the individual patient. The benefits of successful transition are seen in increased clinic attendance and better health outcomes in the long-term. Transition should be a clear process over a defined period of time therefore planning for the transition process needs to start around 12-14 years. Services should aim to be developmentally appropriate and person-centred, respecting the young person as an individual and involving them in their care planning.¹³

9.2. OLDER PEOPLE IN RESIDENTIAL SETTINGS

Care home residents with diabetes are particularly vulnerable, characterised by highly comorbid health state, frailty and cognitive dysfunction, high rates of hospital admission for hypoglycaemia (low blood sugar) and infection. This poses a great challenge for effective diabetes management, warranting a holistic comprehensive geriatric approach that considers all elements impacting on health and wellbeing, functional status, life-expectancy and the wishes of the individual, their family and/or carers.

Adopting a person-centred approach, individualising management plans, determining priorities for care and agreeing realistic goals based on holistic assessment, is important in supporting diabetes management. This approach reduces the risk of adverse outcomes due to poor diabetes control but avoids unnecessary overtreatment and the risks associated with hypoglycaemia and other treatment side-effects.

9.3. COGNITIVE IMPAIRMENT

Cognitive dysfunction is a broad term that includes many domains, such as memory, learning, mental flexibility, attention, and executive function. In addition, patients with cognitive dysfunction can be on a spectrum that extends from a mild cognitive impairment (defined as cognitive dysfunction without difficulty performing daily activities) to severe dysfunction (commonly referred to as dementia).

For patients with diabetes, executive functions are particularly important as they involve behaviours, such as insight into a problem, problem-solving, judgment, stopping or changing old habits, and starting new habits. All these behaviours are important when patients are asked to do complex tasks such as matching insulin dose with carbohydrate content, predicting the impact of physical activity on blood glucose, or even recognizing and treating hypoglycaemia appropriately.

9.4. LEARNING DISABILITY (LD)

Prevalence of Type 2 diabetes varies in the general population by ethnicity and social factors; however, studies have shown individuals with a learning disability are at a higher risk of developing Type 2 diabetes.^{14,15}

The reasons for higher estimates being based on the following: people with learning disabilities leading a more sedentary lifestyle, undertaking low levels of exercise, consuming high fat diets and being prescribed high levels of antipsychotic medications, all of which can contribute to obesity.¹⁶ Increasing the uptake of health checks and supporting healthy lifestyles and education is essential for individuals with learning disabilities and their carers.

9.5. ETHNIC MINORITIES

The prevalence of diabetes, Type 2 in particular, is between two to four times higher in communities of Asian and African-Caribbean origin than those of European origin. People form Asian communicates with diabetes have a two-three fold increased risk of heart disease and a four-fold increased risk of renal failure. For a variety of reasons, diabetes remains undiagnosed in large proportions of people with diabetes from ethnic minority. Consideration may be required to screening ethnic minority communities as a 'at risk' group to facilitate early diagnosis.

9.6. HARD TO REACH COMMUNITIES

9.6.1. PRISONERS

The prison environment it has been argued can provide the opportunity to address the health needs of a hard to reach sector of society with diabetes. For some prisoners, prison provides an opportunity to access healthcare, which, for a variety of reasons, they have not been able to access previously.¹⁸ In addition, there are opportunities to promote health within the prison environment. However, there is also evidence of prisoners with diabetes not being able to access the services they require whilst in custody (Ombudsman -Death in custody Investigations).¹⁷

9.6.2. HOMELESS AND TRAVELLER COMMUNITIES

Homelessness in the UK is increasing and people experiencing homelessness face significant health inequality, including reduced life-expectancy. For people who are homeless, accessing healthcare is likely to be difficult and the individual's healthcare needs are likely to be broad ranging, requiring more support than with diabetes alone.

Romany Gypsies and Travellers are amongst the oldest established minority ethnic groups in the UK and studies have indicated a high incidence of diabetes in these populations. Research suggests that these groups have poorer diets, lower levels of exercise and an increased risk of depression. Specific barriers, such as low levels of literacy and diabetes knowledge, can prevent Gypsies and Travellers with diabetes from getting the best possible care.

There is very limited published evidence that differentiates between Type 1 and Type 2 diabetes amongst Gypsy and Traveller communities. Anecdotally, however, most cases found amongst these communities are of people with Type 2 diabetes.18,19

Providing healthcare to the homeless and traveller community will likely require facilitation, support and partnership working between healthcare, social services and voluntary sector organisations.

STP Offer:

1. Staff coming into contact with people living with diabetes will have the skills and competence to understand their needs and ensure that these needs are met in a way that is person-centred, whatever their professional background.

Our workforce will be high-quality, person-focused, within integrated multidisciplinary teams spanning the health continuum, in order to support all actions and achieve the outcomes set out in this framework. We will skill diabetes champions to support individuals with established disease or at risk of developing diabetes.

10.1. NHS STRATEGIC POLICIES

The NHS Long Term Plan (2019) and interim NHS Peoples Plan (2019) sets out how we will transform models of care over the next five years to provide more co-ordinated, proactive and personalised care and better health outcomes. These changes include developing fully joined-up primary care and community services, particularly for people with long-term health and care needs, redesigning emergency hospital services, and providing digitally enabled primary and outpatient care.

Through Integrated Care Systems (ICSs), the NHS will forge much more effective partnerships with local authorities and other partners to address wider determinants of health and help enhance the health and wellbeing of local communities.

The long term plan calls for a 'fundamental shift' in the way that the NHS works alongside patients and individuals. Highlighting the need to create genuine partnerships between professionals and patients, it commits to training staff to be able to have conversations that help people make the decisions that are right for them. There is also a commitment to increasing support for people to manage their own health, beginning in areas such as diabetes prevention and management. This forms part of a broader cultural change, moving towards what we have described as shared responsibility for health.

10.2. WORKFORCE DEVELOPMENT

As part of our improving diabetes care journey, we need to identify and support current workforce capacity and competency to deliver the future model of care. Implementing a new model of care to support diabetes management will include staff training and development needs.

The skills required to support effective diabetes care include many that are generic to all long term conditions, as well as others that are specific to diabetes.

This will involve:

- Acknowledging the philosophy and principles of systematic support for self-management
- Using available evidence-based and quality-assured training

Identifying:

- Accountable leadership
- The population involved (risk stratification)
- Capacity of individuals to engage in the necessary processes and supporting them to do so
- The multidisciplinary teams involved
- The roles and responsibilities of each team member

- Robust metrics, data collection methods, analysis and feedback to drive improvement.
- Using available evidence-based and quality-assured training

10.3. GOVERNANCE

The MSE Local Workforce Board will oversee the allocation of Health Education England funding for key areas of workforce development.

This framework will be implemented through the development of a competency framework, which will identify the skills required to support individuals at differing stages of their diabetes experiences, and inform necessary investment for continuing professional development across the primary, social and secondary care interface.

STP Offer:

- 1. New intervention and technologies, where appropriate and effective, will be used to support treatment and care for people living with diabetes.
- 2. Information management will underpin the development of diabetes services.
- 3. Diabetes health outcomes are evaluated so we can target and assist local areas in further need of support.

A diabetes framework and care model needs to be underpinned by effective (and easy to use) technology and information management to maximise success.

11.1. DATA

It will be impossible to monitor the impact of the framework and model of care without robust reliable data. Collecting, collating and analysing data can be achieved at system level. We will use the wealth of data we collect to maximum effect, and ensure that we are making best use of our resources, delivering efficient and effective services.

11.2. RESEARCH

Research provides the basis for understanding the causes of diabetes, its prevention and effective management, and its cure. Increasingly, pharmaceutical companies, universities and hospital research units share their expertise and costs by working together. The STP will collaborate with local research partners in order to identify the effectiveness of community based programmes to help support and drive change.

11.3. TECHNOLOGY

It is anticipated that a number of potential solutions which, taken together, could help the system close the gap between demand and capacity. Several of these solutions are dependent upon, or would be significantly enhanced by, the systematic deployment of digital solutions.

Examples include:

MANAGING DEMAND

- Self-care and community support. These tools are well developed and have a range of applications, including diabetes apps and software that support behaviour change as well as providing online support for people with a wide range of conditions including anxiety and depression
- Prediction and risk stratification. There are a number of established tools that can support
 practices to risk stratify patients on their list and identify those patients that have 'rising risk'.
 This enables comprehensive care plans to be put in place for these individuals, enabling
 them to stay well for longer

CREATING CAPACITY

Patient pathways and treatment. These tools can support patients and professionals to
provide improved on-going care and reduce the need for regular consultations, for example
through remote patient monitoring where the patient's readings are constantly logged and
reported automatically, with anomalies or concerning patterns flagged to the patient and their
GP

OPERATING AT SCALE

Communication across settings. Having access to patient level information across a range
of care settings is vital, especially as patients are frequently in contact with multiple services.
As well as a core shared core record, further digital solutions now enable summary records
to be held on smartphones, and for automatic communication with patients (such as
appointment reminders, medication alerts etc.)

It is intended that local transformation aligns to the wider strategic intent included within the pan Essex document 'Digital Essex 2020' and the Primary Care Strategy, and that we utilise the Diabetes Framework to influence these programmes of work.

12. IMPLEMENTATION

12.1. OVERVIEW

In determining our approach to implement this framework, we have considered the best way of balancing several factors, including:

- We are not all starting from the same place the community service offer differs across CCG areas and Primary Care Networks have differing levels of maturity
- Implementation will not be at the same pace everywhere
- The local context is critical we know that the challenges in each CCG area are different and, as a result, the approach to implementation will differ also

As a result of these factors, we have concluded that the right approach is for each CCG to lead implementation with local system partners but within a consistent STP wide framework.

12.2. STP WORKSTREAMS

We know that in some areas it will make sense to coordinate and do things once, adopting an STP wide approach. The key areas, we have identified to date, and in which we will contribute to the development and implementation plans, are:

- Digital
- Aspects of workforce, such as work on defining consistent new roles and STP wide recruitment and training activities
- Procurement (where appropriate)

12.3. GOVERNANCE AND TIMELINE

We will work within and be guided by existing STP governance arrangements, ensuring system approval and sign up, to achieve the optimum level of embedded success; whilst acknowledging the move towards an Integrated Care System may require an element of flexibility to delivery.

The diabetes framework and model of care has a 5 year delivery plan which compliments the STP Long Term Plan and strategies currently in development. The timeline below indicates key milestones throughout the 5 years and progress against these will be monitored and reviewed on a monthly basis.

The first key milestone will be the benchmarking, within each area, against the key requirements. Once completed, the system will agree priority areas (in addition to those outlined in section 2.8) and how these will be taken forward i.e. at a local level or across the STP footprint. Detailed implementation plans will then be developed.

Key Milestone Deliverables	Timeline
STP 5 year Diabetes framework finalised and approved	Nov-19
Review and redesign STP foot pathways community through to acute	Dec-19
Governance structure established (in line with existing forums)	Jan-20
Prevention/self-care programmes identified across the wider health system	Feb-20
Benchmarking (gap analysis) against the framework completed	Feb-20
System-wide and CCG priority areas agreed and plans developed	May-20
Framework changes to service pathways implemented	Jun 20- Mar 22
MyDiabetes app distributed to 100 Type 2 diabetes patients within each CCG (initial pilot)	May-20
NDPP referrals increased in line with yearly IP allocation	Aug 20-Jul 24
Improvement in variances across practices in care processes and 3TTs	Mar-21
Diabetes workforce competencies developed based upon national guidelines	Sep-20
Workforce training needs identified	Mar-21
Collaborative working across PCN/Place - community and specialist	Apr 22-Mar 23
Care Model developed and procured (subject to PCN maturity)	Apr 23- Sep 24
Care Models implemented	Mar-25

13. REFERENCES

- 1. Diabetes Uk. The Cost of Diabetes Report v2. 2014.
- 2. Public Health England. Diabetes prevalence estimates for local populations; 2015. Available from: https://www.gov.uk/government/publications/diabetes-prevalence-estimates-for-local-populations
- 3. National Institute for Health and Care Excellence (NICE). Clinical Knowledge Summary. Risk factors for Type 1 diabetes. 2019. Available from: https://cks.nice.org.UK/diabetes-type-1#!backgroundSub:2
- 4. National Institute for Health and Care Excellence (NICE). Clinical Knowledge Summary. Risk factors for Type 2 diabetes. 2019. Available from: https://cks.nice.org.UK/diabetes-type-2#!backgroundSub:2
- 5. Ministry of Housing, Communities and Local Government. National Statistics. English Indices of Deprivation. 2015 Available from: https://www.gov.UK/government/statistics/english-indices-of-deprivation-2015
- 6. NHS Digital. National Diabetes Audit Report 1 Care processes and treatment targets. 2017-18. Available from: https://digital.nhs.UK/data-andinformation/publications/statistical/national-diabetes-audit/report-1-care-processes-andtreatment-targets-2017-18-full-report
- 7. US Department of Health and Human Services, National Diabetes Education Programme, Guiding Principles for the Care of People with or at Risk for Diabetes. Published 2018
- 8. NHSE Five Year Forward View for Mental Health. NHSE. London. 2016. Available from: https://www.england.nhs.uk/wp-content/.../Mental-Health-Taskforce-FYFV-final.pdf
- 9. Aronson J.K. In defence of polypharmacy. Br J Clin Pharmacology. 2004; Vol.57 No.2: 119-120.
- 10. Aronson J.K. Polypharmacy, appropriate and inappropriate. British Journal of General Practitioners. 2006; Vol.56. No. 528: 484-485.
- 11. Gæde, P., Oellgaard, J., Carstensen, B. et al. Diabetologia (2016) 59: 2298. Available from: https://doi.org/10.1007/s00125-016-4065-6
- 12. WebMD. 2017 Gestational Diabetes: Can I Lower My Risk? [Online] WebMD. [Cited: 08.22.2017] Available from: http://www.webmd.com/diabetes/gestational-diabetes-guide/gestational-diabetes-can-i-lower-my-risk#1.
- 13. National Institute for Health and Care Excellence (NICE). *Transition from children's to adult's services for young people using health or social care services;* NICE guidance [NG43]. 2016. Available from: https://www.nice.org.uk/guidance/ng43
- 14. Walwyn, R.E.A., Russell, A.M., Bryant, L.D. *et al.* Supported self-management for adults with type 2 diabetes and a learning disability (OK-Diabetes): study protocol for a randomised controlled feasibility trial. *Trials* **16**, 342 (2015) doi:10.1186/s13063-015-0832-9
- 15. McVilly K, McGillivray J A, Lehmann J. Diabetes in people with an intellectual disability: a systematic review of prevalence, incidence and impact. 2014. Available from: https://onlinelibrary.wiley.com/doi/abs/10.1111/dme.12494
- 16. Taggart L, Cousins W. *Health Promotion for people with intellectual and developmental disabilities.* Open University Press McGraw-Hill Education. 2014

- 17. Condon L, Gill H, Harris F. A review of prison health and its implications for primary care nursing in England and Wales: the research evidence. *Journal of Clinical Nursing.* 2007; Vol.16 (7): P.1201-9. Available from: https://onlinelibrary.wiley.com/doi/abs/10.1111/j.1365-2702.2007.01799.x
- 18. Greenfield M, Lowe L. Bath and North East Somerset Gypsy, Traveller, Boater, Showman and Roma Health Survey 2012-2013 Bath and North East Somerset Health Authority. 2013
- 19. Greenfields M. It's a sweet life travelling: Meeting the healthcare needs of Travellers with diabetes. *Journal of Diabetes Nursing*. 2004; Vol.18 No.5: P.193–8

- Appendix A: Diabetes Overview in Mid and South Essex Appendix B: Diabetes Framework Elements and Key Requirements
- Appendix C: National Frameworks and Standards
- Appendix D: Prescribing Algorithm for the Treatment of Type 2 Diabetes in Adults