Appendix B: Diabetes Framework Elements and Requirements

Section: Identification and Prevention

Core Domain	Element #	Element Name	Evidence Statement	Sub-Element #	Sub-Element	Framework Requirements
ELEMENTS						
Identification	1	**Identification of People with Undiagnosed Diabetes and Prediabetes**	*targeted screening identifies individuals who can benefit from evidence-based interventions that can lower risk of adverse outcomes*	1.1	**Whom to screen for diabetes and prediabetes, and how often**	Prediction/ risk stratification tools used within each practice/ PCN to risk stratify patients and identify those patients that have 'rising risk'.
						Blood glucose screening as part of cardiovascular risk assessment in adults ages 40 to 75
						Blood glucose screening as part of SMI (serious mental illness) health checks for all those on register age 18+
						Screening is offered to younger adults who are overweight or obese
						Repeat screening every 1-3 years where appropriate
				1.2	**Screening tests for diabetes and prediabetes**	HbA1c and fasting BG are carried out annually for those at high risk
						Practice level registers maintained for pre-diabetic (NDH) individuals
				1.3	**Screening for gestational diabetes**	Women at high risk for type 2 diabetes are tested prior to conception or at the first prenatal visit for pre-existing diabetes
						Women with a history of GDM are screened yearly with a fasting glucose and HbA1c
Prevention	2	**Management of Prediabetes to Prevent or Delay the Onset of Type 2 Diabetes**	*Progression to type 2 diabetes among people with prediabetes is not inevitable. Modest, sustained weight loss, increased physical activity, and/or metformin therapy in these individuals can prevent or delay the onset of type 2 diabetes*	2.1	**National Diabetes Prevention Programme (NDPP)**	People at risk of diabetes are referred/or encouraged to self refer to the national programme as per the criteria
				2.2	**Weight loss and physical activity for prevention of type 2 diabetes**	People with prediabetes are provided with lifestyle interventions that include regular physical activity and dietary changes to enable sustained weight loss
						Registered dieticians, nutritionists or diabetic educators are available via referral to individuals with prediabetes
						Weight loss goals are set at a minimum of 5-10% of an individuals body weight
						Physical activity goals are set to target at least 30 minutes of moderate activity at least 5 days a week
						Weight loss to focus on evidence based dietary interventions
				2.3	**Metformin for type 2 diabetes prevention**	Metformin to be offered to relevant individuals to prevent diabetes - based upon risk and on a case by case assessmet by their HCP
				2.4	**Cardiovascular disease risk management**	CVD risk factors should be monitored and treated based on general guidelines for the prevention and management of CVD in individuals with prediabetes

Section: **Management**

Core Domain	Element #	Element Name	Evidence Statement	Sub-Element #	Sub-Element	Framework Requirements
ELEMENTS						
Management	3	Comprehensive, Patient-centred Diabetes Care	*The person with diabetes, often with support of family, plays the central role as self-care manager and decision maker. Team care integrates the skills of health care professionals with those of the patient and family into a comprehensive diabetes management program*	3.1	Consideration of health literacy and numeracy	Screening of health literacy is available to relevant patient groups
						Low health literacy materials are routinely used for relevant patient groups
				3.2	Consideration of patient self-management resources, including ability to afford care	Assessment of an individuals ability to afford/attend clinic visits
						Diabetes care is provided in settings that are accessible to people with limited resources
						Home glucose monitoring is offered to eligible patients and the frequency of monitoring set to achieve maximum impact
						Flash glucose monitors are offered to eligible patients with diabetes
				3.3	Annual comprehensive diabetes checks	People with type 1 and 2 diabetes receive 15 diabetes healthcare essentials annual review to include: HbA1c, BP, Cholesterol, Eye screening, Foot check, Kidney test, Diet advice, Emotional and Psychological support, Diabetes Education course, Diabetes specialist if needed, Flu jab, Sexual problems, Smoking Specialist care if planning pregnancy, Medication review
						People with type 1 and 2 diabetes have their shared care plan set and reviewed annually
				3.4	Type 1 specialist management	People with type 1 diabetes to receive an annual specialist review as a minimum
						Individuals have access to an Insulin Pump/Freestyle Libre or Continuing Glucose Monitoring wherever appropriate
				3.5	Comprehensive and coordinated management of co-morbidities	Health care teams regularly consider a number of clinical assessments and related interventions to address each individuals co-morbidities
						Social prescribers are available to support peple to access relevant community interventions to manage co-morbidites
						Depression screening and treatment is available to patients with diabetes
						Screening for cognitive impairment is available for older adults who are having difficulty with self-management
						People with diabetes are encouraged to undergo recommended age and sex-appropriate cancer screenings and to reduce their modifiable cancer risk factors
						People with diabetes are encouraged to receive regular dental care
						People with diabetes are asked about symptoms of sleep apnea and those with symptoms are referred for testing
	4	Ongoing Self-management Education and Support for People with Diabetes	*Effective self-management education and ongoing self-management support are essential to enable people with diabetes to make informed decisions and to assume responsibility for the day-to-day management of their disease and risk factors for complications.*	4.1	Definition and purpose of diabetes self-management education and self-management support	Objectives are set within the care plan to support informed and shared decision-making, self-management behaviours, problem solving, and active collaboration with the health care team to improve clinical outcomes, health status, and quality of life.
						Self-management support involves system professionals to help people with diabetes to implement and sustain ongoing behaviours needed to manage their diabetes.
						These activities include behavioural, educational, psychosocial, and clinical support.
				4.2	How to provide self-management education and support	Educational materials provided to all people diagnosed with diabetes in line with Public Health and Diabetes National Bodies
						Psychological support is available (including IAPT) to address individual barriers and readiness for change.
						Programmes are available that address health literacy, and are culturally and age appropriate
						Opportunities are available for families to be included in the process if it supports the self-management aspect
						A mixture of 1-1 and group sessions are available where appropriate
						Programmes available demonstrate that they meet the needs of patients which may involve 10 or more contact hours.
						Specialist input available to all people with Type 1 diabetes at management and education levels
				4.3	Community-based and other resources	Referrals to appropriate services are made for people with socioeconomic barriers to diabetes self-management

Core	Element	Element Name	Evidence Statement	Sub-Element	Sub-Element	Framework Requirements
ELEMENTS						
Management	5	**Lifestyle Modification for People with Diabetes**	*Nutrition and physical activity are the foundations of diabetes management. Individualised nutrition therapy helps people achieve blood glucose, blood pressure, blood lipid, and weight goals; address individual nutrition needs; and prioritise food choices when indicated by scientific evidence. Regular physical activity helps improve insulin sensitivity and glycaemic control, positively affects lipids and blood pressure, assists with weight maintenance, and is associated with reduced risk for cardiovascular disease (CVD)*	5.1	**Provide nutrition therapy and monitoring**	People with diabetes who meet the agreed criteria have access to a registered dietitian from the time of diagnosis.
						Dietary review involves a nutrition assessment, individualised nutrition interventions, and nutrition monitoring and evaluation with ongoing follow-up to support long-term lifestyle changes, evaluate outcomes, and modify interventions as needed
				5.2	**Helpful eating behaviours and practices for glycaemic control**	Carbohydrate intake is monitored to achieve glycaemic control
						Portion size control is recommended to achieve glycaemic control
				5.3	**Encourage physical activity**	Programmes encourage at least 150 minutes per week of moderate-intensity aerobic physical activity. Activity should be spread over at least 3 days per week, with no more than 2 consecutive days without exercise.
						Able individuals or more physically fit are encouraged to do at least 75 minutes of vigorous-intensity per week
						Programmes encourage muscle-strengthening activities two to three times per week on non-consecutive days, targeting all major muscle groups
						Programmes are available that target older adults or those with limited mobility, and encourage safe ways to be more active, such as chair exercises, exercise classes designed for seniors, or aquatic exercise
				5.4	**Goal setting**	People with or at risk for diabetes are supported to set a modest initial physical activity goal which increases gradually over time, regardless of the person's current level of physical activity
						Inactive people and those with low levels of physical activity are supported to develop self-efficacy in collaboration with social support from family, friends, and the health care team.
				5.5	**Appropriate precautions**	Individuals are evaluated for contraindications and limitations to physical activity when initially developing a programme
						Appropriate physical activity plans are developed for individuals with contraindications or limitations to activity in consultation with them
						Blood glucose monitoring advice given to people taking medications that can cause hypoglycaemia as a result of exercise.
						Advice is sought from eye care professionals for any individual being treated for proliferative retinopathy before initiating vigorous aerobic or muscle-strengthening exercises
	6	**Overweight and Obesity in the Management of Diabetes**	*Obesity and overweight play a crucial role in the development of diabetes and weight management is essential part of diabetes management.*	6.1	**Assessment of overweight and obesity**	BMI is calculated and recorded in the individuals health records at least annually
						Weight is measured at all subsequent routine patient encounters and plotted to allow assessment of the individuals trajectory of weight change
						Overweight or obese individuals are advised of the impact of high BMI on glycaemic control and other measures such as lipids and blood pressure, as well as its association with cardiovascular disease and other adverse health outcomes
				6.2	**Lifestyle interventions**	Health care professionals should provide recommendations and/or referrals for diet, physical activity, and behavioural therapy.
						Weight loss recommendations a tailored for older or more frail people at risk of nutritional deficiencies
				6.3	**Helpful behaviours and practices for weight loss**	Counselling sessions are offered to individuals
						Web based interventions are offered where appropriate
				6.4	**Pharmacotherapy**	When choosing among weight-loss medications, consideration is given to patient preferences, cost effectiveness, potential side effects, and contraindications
						Side effects and effectiveness are measured once medication is started and at regular intervals
				6.5	**Bariatric surgery**	Eligible patients offered bariatric surgery referrals
						All surgical candidates receive a preoperative evaluation, including a comprehensive medical and psychosocial assessment by a multidisciplinary team, physical examination, and appropriate laboratory testing to assess surgical risk

Core	Element	Element Name	Evidence Statement	Sub-Element	Sub-Element	Framework Requirements
ELEMENTS						
Management	7	**Blood Glucose Management for People with Diabetes**	*Hyperglycaemia is one of the cardinal characteristic of diabetes, and control of blood glucose is a central component of diabetes care. A patient-centred approach to treating diabetes includes careful consideration of patient factors and preferences that lead to individualised treatment goals and strategies that balance potential benefits against potential harms of blood glucose control*	7.1	**Benefits of blood glucose control**	Patients with diabetes and poor glucose control are offered treatment to lower HBA1C to the agreed individual target level
				7.2	**Risks of blood glucose control**	Safety mechanisms are in place for treating diabetes aggressively to near-normal HBA1C goals in people with long-standing diabetes who have CVD or multiple CVD risk factors.
						Hypoglycaemia is identified correctly (plasma glucose < 4 mmol/l) and treated appropriately
						Emergency glucagon kits, (which may require a prescription) are available to individuals with severe hypoglycaemia who is unable to ingest fast-acting carbohydrates
						People in close contact with these individuals are identified and training provided on how to use the emergency kits
						People with diabetes should understand factors, such as physical activity or missed meals, that increase their risk of hypoglycaemia and ways to prevent and treat it
				7.3	**Treatment goals**	Treatment targets are individualised based on duration of diabetes, age/life expectancy, comorbid conditions, known CVD or advanced microvascular complications, hypoglycaemia unawareness, and patient preferences after discussion of the potential benefits and risks of specific levels of glycaemic control and treatment strategies
						Goal setting is conducted through shared decision-making, balancing the potential for relatively small incremental benefit with potential harms of medication side effects and costs.
						HBA1C targets are set appropriately and reassessed with patient preferences, and treatment strategies over time; modifying goals as appropriate.
				7.4	**Blood glucose management strategies**	Consider medication initiation early on alongside the lifestyle intervention
						Patients are supported through the use of strategies to help them take their medicines as directed
				7.5	**Blood glucose assessment**	A number of options are available to enable patients wherever appropriate to regularly self monitor their blood glucose levels

Section: **Complex Care**

Core Domain	Element #	Element Name	Evidence Statement	Sub-Element #	Sub-Element	Framework Requirements
ELEMENTS						
Complex Care	8	**Multifactorial Cardiovascular Disease Risk Reduction**	*Cardiovascular disease (CVD) is the leading cause of death for people with diabetes and is a major contributor to health care costs related to diabetes.*	8.1	**Evidence for blood pressure control**	Individuals are supported to lower their blood pressure (where appropriate) to the agreed target level
						Health care professionals develop individualised blood pressure targets with their diabetic patients in the context of shared decision-making that incorporates patient preferences.
						Blood pressure is measured at appropriate intervals
						Home blood pressure monitoring is encouraged where needed
				8.2	**Evidence for lipid therapy**	Statin therapy is offered to people as per national recommended guidelines
						Lifestyle modification to improve lipid profiles is offered to people with diabetes .
				8.3	**Smoking cessation**	Effective support and interventions are available to patients with diabetes who are smokers
				8.4	**Multiple risk factor reduction and the importance of assessing medication adherence**	Identification is made of individuals who do not meet HbA1c, blood pressure targets on multiple anti-hypertensive medications or show evidence of cholesterol lowering with statins, but are failing to take medication regularly as directed
						Strategies are developed to ensure patients with diabetes take their medication as directed
	9	**Diabetes Microvascular Complications and Treatment**	*The prevention and treatment of microvascular complications are of paramount importance to decrease the associated mortality and morbidity.*	9.1	**Hypoglycaemia**	Actively enquire about hypoglycaemia episodes during any contact with patients with diabetes
						Individuals are appropriately management to avoid reoccurrence of hypoglycaemia
						Appropriate hypoglycaemia education is made available during annual reviews
				9.2	**Diabetic ketoacidosis (DKA)**	Patients at risk of DKA to have appropriate education to avoid episodes
						Urgent review upon patient discharge from hospital to avoid reoccurrence.
				9.3	**Nephropathy**	Annual urine albumin creatinine ratio (ACR) checks offered to patients with diabetes
						ACR is assessed at diagnosis of diabetes
						Offer ACE inhibitor or an ARB medication to patients with micro/macro albuminuria
						BP control as per the national guidelines
						Education is provided to people with nephropathy about the progressive nature of kidney disease, the renal preservation benefits of optimal management of blood pressure and blood glucose, the importance of a low-sodium diet, and the potential need for renal replacement therapy.
				9.4	**Retinopathy**	Adults with T1DM referred at diagnosis and children over 12 years of age with T1DM are referred for an initial dilated and comprehensive eye examination by an eye care professional (optometrist or ophthalmologist)
						People with type 2 diabetes are referred for an initial dilated and comprehensive eye examination by the DESPat the diagnosis of diabetes.
						Eye screening to continue as per national guidelines
						Community opticians are able to identify the onset and progression of diabetic retinopathy and other ocular complications of diabetes, and should promptly communicate eye examination findings to the patient's primary care provider
				9.5	**Neuropathy**	All people with diabetes are screened for DPN and have annual screening
						People found to have peripheral neuropathy are assessed for B12 and other vitamin deficiencies, alcohol use disorder, hypothyroidism, and heavy metal or toxin exposure
						People with evidence of other microvascular or neuropathic complications are screened for signs and symptoms of cardiovascular autonomic neuropathy, such as resting tachycardia and orthostatic hypotension
				9.6	**Foot Care**	Starting at the time of diagnosis of diabetes a comprehensive foot examination is conducted annually for each diabetic patient
						General foot health education is available to all adults with diabetes, including preventative strategies such as appropriate footwear
						Podiatry Care Enhanced education is provided to patients with foot risk factors including DPN (loss of protective sensation) and Peripheral Vascular Disease about self-care of the feet
						Podiatric assessment and ongoing monitoring is provided to patients in line with Diabetic agreed foot pathways.

Section: Hard to Reach Groups

Core Domain	Element #	Element Name	Evidence Statement	Sub-Element #	Sub-Element	Framework Requirements
ELEMENTS						
Hard to Reach Groups	10	**The Needs of Special Populations with Diabetes**	*Recognising inequalities is the first step to confronting the challenge of taking effective action*	10.1	**Children and Adolescents**	Identification is made of maturity-onset diabetes of the young (MODY) in older children or young adults with atypical forms of diabetes
						Diabetes care for children and teens is provided by a team that can deal with the special medical, educational, nutritional, and behavioural issues
						Planning for transition of care from parents to self and from paediatric to adult care professionals is provided during the vulnerable time as teens transition into adulthood
						Close communication and cooperation is established between the diabetes care team, school nurses, and other school personnel for optimal management, safety, and academic opportunities for youths with diabetes
						A personal diabetes management plan and daily schedule is developed for the young person in partnership with their parents and the wider team
						Children and teens are supported to check blood glucose levels before beginning a game or a sport and learn to prevent hypoglycaemia
						Local peer groups are available for children and teens with diabetes to provide positive role models and group activities
				10.2	**Women of childbearing age**	Counselling about the importance of planning pregnancies is available to all women with diabetes who have childbearing potential
						Preconception care to achieve glucose control, and discontinuation of medications contraindicated in pregnancy is available to all women with diabetes who have childbearing potential
						Folic acid 5mgs to women who have pre-existing diabetes and are planning a pregnancy and/or that they should be aiming for an HbA1c of <48mmol/mol prior to conception
						Care from a skilled MDT experienced in the management of diabetes before and during pregnancy is available to all women with diabetes who have childbearing potential
						Support to maintain stable blood glucose values close to normal before and during pregnancy, as well as management of any existing long-term diabetic complications is available to all women with diabetes who have childbearing potential
						Women of childbearing age with a history of gestational diabetes mellitus (GDM), prediabetes, or obesity are routinely screened for type 2 diabetes prior to conception or very early in pregnancy
				10.3	**Cognitive Impairment**	Targets and care plans are individualised including education for family and carers around signs of diabetes complications
						HbA1C is monitored to assist better glycaemic control Self-administration and care in people with cognitive-impairments / dementia is closely monitored
						Regular medication reviews are undertaken to simplify regime
						Diabetes care is provided by a team that understand the complex interaction between diabetes and cognitive impairment / dementia
						MDT members have an understanding of the monitoring needs and support of individuals with cognitive impairment
						Annual dementia reviews are carried out in conjunction with diabetic reviews via integrated care plan
				10.4	**Learning Disability**	Individualised targets and care plan. Education for family and carers around signs of diabetes complications
						Regular medication reviews to simplify regime
				10.5	**Older adults**	Management goals are individualised, incorporating a consideration of health and life expectancy in older adults with diabetes
						Care home to staff to receive diabetes education
				10.6	**High-risk racial and ethnic groups**	Screening targets people who are at high risk of diabetes due to race or ethnicity
						Health care team take proactive and practical steps to understand how people view and treat diabetes within their respective cultures
						Appropriate and culturally sensitive diabetes education materials are available to relevant racial and ethnicity groups

Section: **Workforce and Data and Technology**

Core Domain	Element #	Element Name	Evidence Statement	Sub-Element #	Sub-Element	Framework Requirements
ENABLERS						
Workforce	11	**How the health and social care workforce can meet the needs of those with Diabetes**	*Where appropriate requirements linked to STP strategies will be managed through existing forums/boards working with system/place and localities to implement*	11.1	**Leadership and Management**	System leaders promoting framework requirements as best practice and ensuring key requirements are fully embedded
						Joint workforce planning in place across sectors (PCN/Place) to maximise patient impact and outcomes
						System leaders working with research partners to improve planning and provision of quality diabetes care
				11.2	**Skills, Competences and Roles**	Clear competencies developed for the diabetes workforce and other professionals involved in diabetes care based on national guidelines
						Nursing staff assessed and reviewed annually against the Integrated and Competency Framework for Diabetes Nursing
						Alternative roles identified in PCNs to support elements of diabetes care
						A mental health professional with knowledge of diabetes is part of every diabetes care team.
						Diabetes Champion identified within each PCN
				11.3	**Training and Development**	Primary care and public health workforce upskilled to support people in making healthy choices
						Workforce is appropriately skilled to support the concept of self management and person centred care
						Diabetes nurses training in dementia needs
				11.4	**Collaborative working**	High-quality, person-focused and integrated multidisciplinary teams (MDT) established, co-located or virtually, providing collaborative care planning for people with diabetes
						Specialist support (consultant) available to provide diabetes care within a reasonable time.
Data and Technology	12	**How the use of data and technology can meet the needs of those with Diabetes**	*Where appropriate requirements linked to STP strategies will be managed through existing forums/boards working with system/place and localities to implement*	12.1	**Making better use of Data**	Data is collated and analysed at system level, enabling performance to be monitored and evaluated against framework requirements
						Patient level information is available across a range of settings to assist with the management of local populations (PNC/Place)
						Collaboration with local research partners is in place to help support and drive change (eg Academic Health Scientific Network)
				12.2	**Creation of Single Shared Care Record**	Health and social care staff have access to a shared care record
				12.3	**Use of technology to maximise patient care and services**	Prediction/ risk stratification tools used within each practice/PCN to risk stratify patients and identify those patients that have 'rising risk'.
						Technology is available to support traditional assessment, education and monitoring.
						Telehealth and other technologies, such as apps, are utilised where appropriate