

Diabetes Services Strategic Plan

2008 - 2012

September 2008

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Abbreviations

ADEA	Australia Diabetes Educators Association
AIHW	(The) Australian Institute of Health and Welfare
ANTA	Australian National Training Authority
APD	Accredited practising dietitian
CDE	Credentialed diabetes educator
CDM	Australian Government Chronic Disease Management
CSII	Continuous subcutaneous insulin infusion
DAA	Dietitians Association of Australia
DIP	Diabetes in pregnancy
DKA	Diabetic ketoacidosis
DM	Diabetes mellitus
FRACGP	Fellowship of the College the Royal Australian College of General Practitioners
FTE	Full Time Equivalent (employee)
GDM	Gestational diabetes mellitus
GP	General Practitioner
GPMP	GP Management Plan
HbA _{1c}	Glycated haemoglobin
HHNC	Hyperosmolar hyperglycaemic nonketotic coma
IFG	Impaired Fasting Glycaemia
IGT	Impaired Glucose Tolerance
KPI	Key performance indicator
MBS	Australian Government Medicare Benefits Schedule
NATSEM	National Centre for Social and Economic Modelling
NDSS	National Diabetes Services Scheme
NHMRC	(the) National Health and Medical Research Council
NHS	National Health Survey
NSW	New South Wales
OOS	Occasion of service
RACGP	(The) Royal Australian College of General Practitioners
RN	Registered Nurse
RNCDE	Registered Nurse credentialed diabetes educator
SE NSW	South East New South Wales
T1DM	Type 1 diabetes mellitus
T2DM	Type 2 diabetes mellitus
TCA	Team care arrangement
TCH	The Canberra Hospital
VIPP	Vision Impairment Prevention Program

Executive Summary

Diabetes Mellitus (DM) defines a group of chronic debilitating illnesses characterised by relative or absolute insulin deficiency with loss of regulation of blood glucose levels. In Australia, diabetes is one of the top six leading causes of death and accounts for about 8% of the total disease burden when complications are considered. Its prevalence is increasing dramatically with over 7% of Australians greater than 25 years being affected.

- **Type 2 diabetes mellitus** (T2DM, formerly known as maturity onset or non-insulin dependent diabetes) is the most common form of this condition. The prevalence of T2DM is growing rapidly and is also being diagnosed in progressively younger individuals. It is estimated that for every known case of T2DM, there is one undiagnosed case and that almost one in four Australians aged 25 years and over has diabetes or a significant risk factor for diabetes¹.
- **Type 1 diabetes mellitus** (T1DM, formerly known as insulin dependent or juvenile onset diabetes) is caused by immune-mediated destruction of insulin producing cells. T1DM may develop at any age but has its peak age of onset in childhood and the early adult years. Its incidence is also growing by 3% per annum.
- **Diabetes in pregnancy** (DIP) occurs in women with pre-existing T1DM and T2DM, but may also be diagnosed for the first time during pregnancy, a condition termed gestational diabetes mellitus (GDM). GDM usually resolves following the birth of the child, but is a high risk indicator for the development of permanent diabetes (mostly T2DM) in later life. All forms of DIP are associated with increased risks of adverse pregnancy outcomes.
- **Impaired fasting glycaemia** (IFG) and **impaired glucose tolerance** (IGT) known as “pre-diabetes” will initiate diabetes complications and if untreated pose a high risk of progressing to T2DM. Obese individuals at risk of this spectrum of chronic disease need to be effectively identified and targeted in childhood and early adulthood with the aim of reducing future morbidity.

The two most recent reports of the ACT Chief Health Officer (2000-2002² and 2006³) note that the current Australian diabetes epidemic is being fuelled by an increase in the prevalence of T2DM, the onset of which can potentially be prevented or at least delayed. Literature supports the promotion of behavioural change and self-management of diabetes and indicates that this leads to better health outcomes, a reduction in unnecessary hospitalisations and overall reductions in the cost of service provision.

¹ Barr, ELM, et al; AUSDiab Study 2005, International Diabetes Institute, Melbourne, Australia, 2006.

² Dugdale, P, Kelsall, L; ACT Chief Health Officer's Report 2000-2002; Australian Capital Territory, Canberra September 2003

³ Dugdale, P, Guest, C, Kelsall, L; ACT Chief Health Officer's Report 2006; Australian Capital Territory, Canberra, June 2006

The greatest burden of diabetes for the health system and for those with the disease results from the development of complications such as heart attack, stroke, renal failure requiring dialysis or kidney transplantation, lower limb amputation, vision loss and premature death. A major focus of the Diabetes Services Strategic Plan 2008 – 2012 (Plan) will be the prevention and slowing of progression of complications. This will require an efficient, skilled and broad-based team of health professionals working with well-informed individuals with the condition.

ACT Health currently provides a comprehensive diabetes service to the community of the ACT and provides some diabetes services support to the surrounding region. With the number of people in the ACT with diabetes projected to significantly increase, a managed change to the service delivery model will increase services available and reduce the considerable strain on this heavily subscribed service which is struggling to identify resources to meet demand.

ACT Health has developed a Plan that reflects best practice, focussed on a person-centred continuum of care based on the level of need of the individual. The Plan incorporates a framework for diabetes care and prevention that addresses primary, secondary and tertiary level care.

The Plan sets the vision and strategic directions for future diabetes services in the ACT. The key purpose of the Diabetes Services Strategic Plan (the Plan) is to articulate a comprehensive framework of DM services that will have the capacity to provide services to a significantly larger number of people.

ACT Health will form a transition team whose role will be to ensure the smooth transition from the current service delivery model to an expanded service delivery model that includes an ACT Health Specialist Diabetes Service and the ACT Community Diabetes Service. They will also have the responsibility to identify key performance indicators and targets against which implementation will be measured.

The transition team will oversee the staged implementation of the Plan to allow for flexibility in service delivery with the least disturbance to both patients and the medical, nursing and allied health professionals working within the service.

Key objectives of the Plan

- To prevent and delay the onset of diabetes;
- Prevent and slow progression of diabetes complications; and
- Enhance the quality of life of people with diabetes.

Diabetes prevention in the ACT will work in the context of national and local strategies. ACT Health will assist the development of intersectoral health promotion and prevention programs that will:

- Promote healthy lifestyles through public health approaches;
- Promote diabetes awareness;

- Increase identification of those at high risk of diabetes and support them in adopting healthy lifestyle choices;
- Support programs for early diabetes detection and treatment;
- Give particular focus to T2DM prevention in children and youth;
- Promote healthy living pre-pregnancy to reduce risk of GDM;
- Promote active self management approaches;
- Integrate prevention strategies through a coordinated, interdisciplinary team approach involving public health workers, nurses, allied health professionals, GPs and specialists from both government and non-government organisations;
- Foster and support health care initiatives that aim to prevent and delay the onset of diabetes; and
- Within the broader context of the ACT chronic disease strategy, develop a research and surveillance system that will enable a coordinated approach to the targeting of clustered risk factors for diabetes and other chronic diseases.

Prevention and slowing of progression of diabetes complications is of utmost importance in order to reduce the burden of diabetes on people with the disease and the health care system. In the ACT this will be achieved by:

- Ensuring accessibility to appropriate diabetes health services for all people with diabetes including indigenous Australians (elimination of barriers to care);
- Enhancing the knowledge of people with diabetes of their condition including the targets of control (blood glucose, lipid and blood pressure) and importance of smoking cessation for prevention of complications;
- Promotion of diabetes self-management skills and consistent standards of care
- Ensuring the annual cycle of care as set out by the Royal Australian College of General Practitioners (RACGP) Guidelines for Diabetes Management in General Practice⁴ is met;
- Ensuring the 2005 Clinical Practice Guidelines: Type 1 Diabetes in Children and Adolescents⁵; are followed for all children and young people in the ACT and surrounding area;
- Promoting early detection and optimal management of diabetes complications;
- Enhancing coordination between community based and specialist diabetes services;
- Ensuring accessibility to effective diabetes specialist services for patients failing to meet targets of control or in need of complications review;

⁴ The Royal Australian College of General Practitioners; Diabetes Management in General Practice (12th edition) November 2005;
<http://www.racgp.org.au/Content/NavigationMenu/ClinicalResources/RACGPGuidelines/Diabetesmanagement/2006diabetesmanagement.pdf>

⁵ The Australasian Paediatric Endocrine Group for the Department of Health and Ageing; Clinical Practice Guidelines: Type 1 Diabetes in Children and Adolescents; 2005;
http://www.nhmrc.gov.au/publications/synopses/_files/cp102.pdf

- Enhancing the efficiency of specialist diabetes services with emphasis on problem solving with referral back to general practice for the majority; and
- Promotion of expert specialist teams for the management of specific diabetes complications such as diabetic eye, cardiac, renal, and lower limb and foot problems.

Quality of life enhancement for people living with diabetes in the ACT will be achieved by:

- Ensuring timely and equitable access to appropriate high quality diabetes programs and support;
- Promotion of patient education and self-management approaches;
- Ensuring evidence-based best practice approaches are used;
- Enabling early implementation and accessibility to improved treatment modalities; and
- Provision of psychosocial support to patients for which barriers to optimum care are identified.

Model of care

The ACT is well situated because of its population size, its highly committed and skilled diabetes care work force and its collaborations with high quality universities and colleges to develop a diabetes service of excellence that can serve as a model both nationally and internationally. This Plan is the first stage in achieving this goal. The Plan outlines a system that allows practical, supportive, evidenced-based interactions between the person with diabetes and their health care team to enable achievement of the key objectives as outlined above. It allows for the person with diabetes to learn the disease process and their role as the daily self-manager of the condition and provides for proactive intensive medical management of people with more acute and complex problems.

The framework for DM services encompasses prevention and early intervention, augmented primary, secondary and tertiary level services and enhanced linkages with the primary care sector, community based services and private service providers. Research and teaching, linkages with tertiary education institutions and the role of specialist services in the wider region are also important.

The service framework encompasses both a primary care focused ACT Community Diabetes Service to facilitate and support self-management and an ACT Health Specialist Diabetes Service to provide secondary and tertiary level services.

The Plan identifies the augmentation of the existing ACT Health Specialist Diabetes Service (Department of Endocrinology and Diabetes, the Department of Paediatric Endocrinology and Diabetes and the ACT Diabetes Service nursing and allied health professionals) complemented by the creation of an independent diabetes service, the ACT Community Diabetes Service. The Plan recognises the important role of community (including general practice) and specialist diabetes services provided in the ACT by the private

sector. It is expected that these and the ACT Health Specialist Diabetes Service and the ACT Community Diabetes Service will be complementary and interactive with agreed communication strategies, prioritised access and wait times, referral pathways and service eligibility criteria that minimises system barriers to patient care.

The ACT Health Specialist Diabetes Service will comprise both adult and paediatric services to provide care to:

- People with all types of diabetes with acute and complex care needs;
- Women with diabetes in pregnancy (pre-existing T1DM and T2DM and gestational diabetes);
- T1DM patients; and
- All children and young people with all types of diabetes.
- It will include ambulatory care services provided by medical specialists, nursing staff and allied health professionals. It will utilise specialised interdisciplinary/ multidisciplinary teams for:
 - Management and education of new patients with T1DM;
 - Optimisation of glycaemic control in T1DM patients through use of state of the art therapeutic strategies including specialised education programs such as Dose Adjustment for Normal Eating (DAFNE), insulin pump initiation and support programs and continuous blood glucose monitoring;
 - Inpatient diabetes programs including coordination of perioperative diabetes management;
 - Child and adolescent diabetes management that complies with the Paediatric Consensus Guidelines⁶;
 - The transition of young diabetes patients between paediatric, youth and adult services;
 - Management of all forms of diabetes in pregnancy including services for pre-pregnancy and postpartum diabetes counselling;
 - Management of complex T2DM patients including a service for starting insulin;
 - Annual multidisciplinary review and complications screening for people with T1DM and complex T2DM;
 - Vision screening service for the early detection of retinopathy;
 - High risk lower limb/foot management;
 - Renal complications management;
 - Cardiovascular complications prevention and management; and
 - After hours specialist and educator intervention services.
- The ACT Health Specialist Diabetes Service will provide diabetes outreach and telehealth programs (educational and specialist clinical services) to rural areas within South-Eastern NSW. A particular focus will be on upskilling all relevant rural-based clinicians (general

⁶ The Australasian Paediatric Endocrine Group for the Department of Health and Ageing; Clinical Practice Guidelines: Type 1 Diabetes in Children and Adolescents; 2005; http://www.nhmrc.gov.au/publications/synopses/_files/cp102.pdf

practitioners, paediatricians, practice nurses, diabetes educators, nurses, dietitians and podiatrists) in diabetes management and to support their professional development pathways.

- This service will also take the major role for providing ongoing training of health care professionals within all sectors of diabetes care provision including a bi annual Accredited National Training Program for generalist health professionals in diabetes management.
- This service will set the benchmarks for diabetes management within the ACT and participate in national benchmarking audits and activities.
- Communication between this service and other sectors will be a high priority that will be advanced through development of improved information technology systems in line with the ACT Diabetes Chronic Disease Strategy.

The ACT Community Diabetes Service will be a new independent service available to all adult ACT residents including those accessing other ACT Health services. The service will provide universally available care with a single point of access. It will provide coordinated multidisciplinary care to people diagnosed with or who are at risk of developing T2DM. It will provide self-management education that facilitates the development of knowledge, skills, attitudes and behaviours that enable the person with diabetes to perform self-care on a day- to-day basis⁷.

- The person is the focus of care. Their GP is the first point of contact in their care and plays a central and pivotal role in the multidisciplinary team care arrangements⁸, coordinating and facilitating the management of their diabetes.
- The ACT Community Diabetes Service will complement services provided in general practice. A shortage of GPs in the ACT is a major barrier to people with diabetes receiving the appropriate level of care. This service will assist GPs in their important central role within the diabetes management team. Efforts will be made in the implementation of the Plan to streamline referral processes between GPs and the service to maximise the time available to GPs for direct patient care.

The model incorporates a commitment to develop processes that optimise seamless communication and information sharing between all parties that will be facilitated by the development of appropriate information management strategies. A shared electronic health record will enable healthcare professionals authorised by the individual to access their health care history, directly sourced from clinical information such as clinician notes, test results, and prescription logs. The shared electronic health record will also be able to be accessed by the individuals themselves.⁹

⁷ Australia Diabetes Educators Association; <http://www.adea.com.au>

⁸ The Royal Australian College of General Practitioners; Diabetes Management in General Practice (12th edition) November 2005

⁹ Nation E-Health Transition Authority

http://www.nehta.gov.au/index.php?option=com_docman&task=cat_view&gid=130&Itemid=139, Accessed April 2008

The quality of the service will be enhanced through the adoption and regular updating of guidelines, local protocols and service directories. Quality improvement projects will be used to evaluate the effectiveness of systems, services and programs.

By linkage with the ACT Chronic Disease Management Program, ACT Health plans to implement a single patient care register for all ACT Health patients with diabetes, heart failure, chronic lung disease and other chronic conditions. The patient care register is intended to provide feedback data to optimise patient care and improve health outcomes. The patient care register will also be linked to decision support tools for health professionals and recall and reminder systems for patients. The register will be attached to the shared electronic medical record.

Workforce training and development will be key to the success of the Plan. Establishment and retention of a skilled work force at all levels of service provision is essential. The Plan will ensure this through:

- Establishing and/or enhancing formal training programs in diabetes through local universities and colleges;
- Providing opportunities for ongoing education through funded attendance to conferences and courses provided by professional bodies such as the Australian Diabetes Society, Australasian Paediatric Endocrine Group, the Australian Diabetes Educators Association and the Australasian Diabetes in Pregnancy Society;
- ACT specialist services providing outreach educational programs for general practitioners and other community diabetes service workers in the ACT and areas that are serviced by the ACT Specialist Diabetes Service;
- Creating opportunities for community diabetes health care professionals to rotate through the specialist services for upskilling; and
- Establishing positive career pathways to encourage workforce development and retention.

Research into diabetes prevention and management will be encouraged and supported. Basic and clinical diabetes research is already prominent in the ACT at the levels of both basic and clinical science. Future research will focus on:

- Chronic disease and health system strategies for enhanced chronic diabetes management;
- Ascertainment of evidence base for informing diabetes best practice;
- Involvement in investigator initiated and multi-centre clinical trials of new diabetes prevention strategies and treatments;
- Translating laboratory bench findings to clinical improvements through enhancing interactions between basic and clinical scientists in diabetes.

Implementation and governance of the Plan

Key to the success of the Plan is a high level of accessibility of patients to the appropriate levels of diabetes services. The two major barriers to its achievement are:

- Limitations in the available diabetes care workforce (See Attachment 1);
- Referral pathways and service eligibility criteria that create unintended barriers to appropriate health services for people with DM.

Implementation of every step of the Plan needs to take into account both of these potential barriers.

Limitations in the available diabetes care workforce will be addressed by:

- Enhancing efficiency of available diabetes health care workers. This will include:
 - Provision of appropriate levels of administrative support;
 - Improvement of information technology particularly with respect to patient records;
 - Ensuring a high level of communication between all levels of diabetes services;
- A broad-based upskilling of the workforce. Increasing the skills of workers particularly within the primary care sector will be essential to reduce the load on limited specialist services;
- Reducing the burden of unnecessary paperwork at all levels. This burden for GPs, diabetes nurse educators and allied health professionals is currently enormous and a major obstacle to attracting health professionals to these jobs. The need to complete paperwork also severely limits the time health care workers can spend with their patients;
- Focus on giving patients of the service, high level self-management skills;
- Increasing retention of the workforce through:
 - Establishing career pathways;
 - Allocating time, money and resources for professional development;
 - Giving every member of the team a degree of ownership and belonging to the whole service.
- Providing training opportunities and course availability for new health care professionals to enter the diabetes care positions;
- Finding means to access all potential sources (federal, territory and private sector) of health care funding to allow growth in the number of health care workers in diabetes; and
- Finding new ways to work within the services (e.g. positions and novel roles for nurse practitioners).

Limitation of barriers for patients to receive the care they need is essential at all levels, particularly for the most disadvantaged patients. A major reason for the development of severe diabetes complications in diabetes patients arises from their failure to access appropriate care and acquire robust self-care skills early in their disease. This can be due to them having difficulty accessing or affording care or due to their own poor compliance with keeping appointments and following advice. For this reason ease of access to and navigation around services will be important elements of the new service delivery framework.

The new independent ACT Community Diabetes Service has the potential to assist in limiting the above barriers, but if not carefully implemented could have detrimental effects. For this reason, this service will be introduced in stages. It will be introduced at a single site while simultaneously running the current ACT Community Health Diabetes Services. The clinical governance body will need to see “proof of principle” that the independent service can deliver on the objectives of this Plan before it is expanded with phase out of the ACT Health operated community diabetes services.

The Clinical Governance structure will include a Diabetes Services Director and an Advisory Management Committee. The Director will ensure that standards in, and clinical policies that support the services, are consistent and reflect best practice.

The Diabetes Services Director will be involved in implementing the Plan. This will include the development and implementation of clinical policy and the setting of benchmarks for both the ACT Health Specialist Diabetes Service and the ACT Community Diabetes Service. The Director, with appropriate administrative support, will manage the contractual agreement between ACT Health and the independent service managing the ACT Community Diabetes Service.

The Director will be assisted and advised by a management team comprising senior management of both the ACT Health Specialist Diabetes Service (adult and paediatric) and the ACT Community Diabetes Service.

ACT Health will facilitate a representative forum including representatives from the ACT Health Specialist Diabetes Service (adult and paediatric), the ACT Community Diabetes Service, General Practice, consumers, non-government bodies and ACT Health. The forum will support and assist in the implementation of consistent standards and policies that reflect best practice. It will strengthen links and communication between the services and facilitate professional development within the sector. Participants in the forum will work collaboratively on research and development projects.

The Director, the Advisory Management Committee and the ACT Diabetes Representative Forum will endeavour to develop a truly innovative service (with emphasis on eliminating barriers to care and improving efficiency of the limited health care professional resources available) that will ultimately be a model for the rest of Australia and Internationally. This will require working with all parties, including ACT Health, Divisions of General Practice, the Federal Government Department of Health and Ageing and non-government organisations including the Private Health Insurance Industry.

Introduction

The number of people in the ACT with diabetes (DM) is projected to continue to increase. ACT Health has developed this plan to identify ways in which the increasing demand for DM health services can be met.

Purpose of the Plan

The ACT Health Clinical Services Plan (2005) foreshadowed the development of a clinical services plan for diabetes services to set the strategic direction for the provision of public DM services in the ACT.

This Diabetes Strategic Services Plan (referred to hereafter as the Plan) is a strategic level planning document that outlines a model of care and service delivery framework for the provision of DM services in the future. Specific implementation and operational detail will be developed in a subsequent stage of planning.

The objective of the Plan is to articulate a framework for the provision of a comprehensive diabetes service that, although providing services to a significantly larger number of people, will retain a strong focus on developing and delivering services with a patient centred focus.

What is diabetes?

Diabetes Mellitus (DM) defines a group of chronic debilitating illnesses characterised by relative or absolute insulin deficiency with loss of regulation of blood glucose levels. In Australia, diabetes is one of the top six leading causes of death and accounts for about 8% of the total disease burden when complications are considered. Its prevalence is increasing dramatically with over 7% of Australians greater than 25 years being affected.

Type 2 diabetes mellitus (T2DM, formerly known as maturity onset or non-insulin dependent diabetes) is the most common form of this condition. The prevalence of T2DM is growing rapidly and is also being diagnosed in progressively younger individuals. It is estimated that for every known case of T2DM, there is one undiagnosed case and that almost one in four Australians aged 25 years and over has diabetes or a significant risk factor for diabetes¹⁰.

Type 1 diabetes mellitus (T1DM, formerly known as insulin dependent or juvenile onset diabetes) is caused by immune-mediated destruction of insulin producing cells. T1DM may develop at any age but has its peak age of onset in childhood and the early adult years. Its incidence is growing by 3% per annum.

Diabetes in pregnancy (DIP) occurs in women with pre-existing T1DM and T2DM, but may also be diagnosed for the first time during pregnancy, a condition termed gestational diabetes mellitus (GDM). GDM usually resolves following the birth of the child, but is a high risk indicator for the development

¹⁰ Barr, ELM, et al; AUSDiab Study 2005, International Diabetes Institute, Melbourne, Australia, 2006.

of permanent diabetes (mostly T2DM) in later life. All forms of DIP are associated with increased risks of adverse pregnancy outcomes.

Impaired fasting glycaemia (IFG) and impaired glucose tolerance (IGT) known as “pre-diabetes” will initiate diabetes complications and if untreated pose a high risk of progressing to T2DM. Obese individuals at risk of this spectrum of chronic disease need to be effectively identified and targeted in childhood and early adulthood with the aim of reducing future morbidity.

The greatest burden of DM for the health system and for those with the disease results from the development of complications. DM is the leading cause of renal failure and the most common non-congenital cause of blindness in Australia. Further complications include heart attack, stroke, lower limb amputation and vision loss. DM is the sixth leading cause of death in Australia and its development has the potential to shorten the life span by 20 or more years. The younger a person develops DM, the greater potential reduction in life expectancy.

The prevention and slowing of progression of complications will be a major focus of DM services. This will require an efficient, skilled and broad-based team of health professionals working with well-informed individuals with the condition.

Demand for diabetes services

“There is likely to be strong growth in the burden of diabetes over the next 20 years, mostly as a direct consequence of increasing levels of obesity. The disability consequences of increasing obesity will be magnified as fatality rates for people with diabetes continue to decline. This increased survival will mean an increase in the risk of people developing other non-fatal but disabling consequences of diabetes such as renal failure and vision loss.”

Begg S, Vos T, Barker B, Stevenson C, Stanley L, & Lopez A (2007) *The burden of disease and injury in Australia 2003.*

T2DM is one of the leading causes of chronic illness in many countries, and is now reaching epidemic levels. It has a devastating economic and social impact¹¹.

In Australia, DM is one of the top six leading causes of death, accounting for 2.5% of all deaths between 2001 and 2004¹². It imposes a large burden on

¹¹ Australian Institute of Health and Welfare 2008. Diabetes: Australian facts 2008. Diabetes series no. 8. Cat. no. CVD 40. Canberra: AIHW.

the health system and on communities. DM accounted for over 5% of the disease burden in Australia in 2003, increasing to 8.3% of total disease burden when the complications of DM were included^{13,14}.

The direct annual health care cost of DM in Australia is estimated at \$1 billion and may reach as high as \$2.3 billion by 2010¹⁵. The average annual health expenditure for each self reported case of T2DM in 2000-01 was \$1,469¹⁶. It is difficult to measure the prevalence of DM. The AUSDiab 2005 study¹⁷ estimated that for every known case of T2DM in Australia, there is one undiagnosed case.

¹² AIHW: Dixon T & Webbie K 2005. Diabetes-related deaths 2001–2003. Bulletin No. 32. AIHW Cat. No. AUS 69. Canberra: AIHW.

¹³ Begg S, Vos T, Barker B, Stevenson C, Stanley L, & Lopez A “The burden of disease and injury in Australia 2003” 2007.

¹⁴ Australian Institute of Health and Welfare 2008. Diabetes: Australian facts 2008. Diabetes series no. 8. Cat. no. CVD 40. Canberra: AIHW.

¹⁵ Australian Government Department of Health and Ageing
http://www.healthinsite.gov.au/topics/Diabetes_Statistics accessed 2 May 2007.

¹⁶ AIHW: Dixon T 2005. Costs of diabetes in Australia, 2000–01. Bulletin No. 26. AIHW Cat. No. AUS 59. Canberra: AIHW.

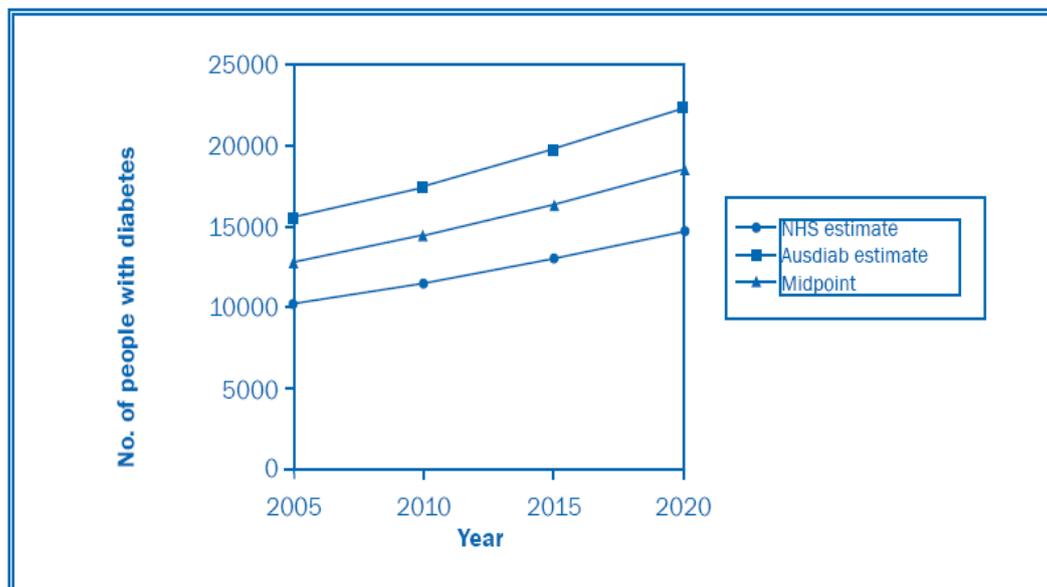
¹⁷ Barr, ELM et al; AUSDiab Study, 2005, International Diabetes Institute, Melbourne, Australia, 2006.

Application of the data (age specific rates) obtained from the National Health Survey and the AUSDiab 2005 to the ACT population results in estimates of 10,114 (NHS) and 15,402 (AUSDiab) persons over 25 years of age with DM in the ACT in 2005.

The number of National Diabetes Services Scheme registrants in the ACT provides a source of secondary ascertainment of prevalence of DM. At October 2007 there was a total of 13,070 NDSS registrants in the ACT (excluding women with GDM).

In the ACT, projections indicate that demand for health services for DM and its complications will increase significantly between 2008 and 2020 (Figure 1).

Figure 1: Projection: ACT residents with diabetes 2005-2020



Source: ACT Health

The target populations for prevention, testing and screening for T2DM are:

- People aged 45 years and over;
- People who are overweight and physically inactive;
- People with a close blood relative (parent, brother, or sister) with DM;
- People with a history of cardiovascular disease;
- Women who have had GDM;
- People who are morbidly obese;

- Aboriginal and Torres Strait Islander people. (In urban centres it is estimated that this cohort is twice as likely as non-indigenous Australians to develop T2DM);¹⁸
- People of South East Asian, Asian sub-continent and South Sea Islander descent; and
- Selected adolescents and children fulfilling the above criteria.

The increase in the number of children and young people being diagnosed with T2DM is a disturbing trend. As of May 2008 there were 9 people under the age of 18 being seen by the ACT Health diabetes services with T2DM and 8 with impaired glucose tolerance (IGT). To date there is no accurate means of ascertaining true prevalence of IGT and T2DM in children and adolescents.

Capacity to meet demand

Across Australia and in most industrialised countries, health systems are under enormous pressure caused by an ageing population, the impact of new technologies, escalating global workforce shortages and increasing consumer demands. DM health services in the ACT are already experiencing the early effects of increasing demand for DM services and workforce pressures in each of the adult, paediatric and young people's subspecialties.

Diabetes services in the ACT

Current ACT Government services

ACT Health currently provides a comprehensive range of highly regarded DM services to people diagnosed with DM and those with pre-diabetes. The services are performing well when benchmarked against other services in Australia.

The ACT diabetes services provide services across the continuum of care at The Canberra Hospital (TCH) and from community based services. The Territory-wide service comprises a multidisciplinary team of medical, nursing and allied health professionals, providing daily services across eight sites as well as regular outreach services to three other sites in the ACT. All services provided by the ACT diabetes services health professionals are tailored as much as possible to meet the individual needs of each person accessing the service.

ACT Health provides limited DM education services at Calvary Hospital. There are currently no DM specialist services provided at Calvary Hospital.

Other services provided in the ACT

People with, or at risk of developing, DM are also able to access a range of health and support services from private sector providers and non-

¹⁸ T. M. E. Davis, D. McAullay, W. A. Davis, D. G. Bruce (2007) Characteristics and outcome of Type 2 diabetes in urban Aboriginal people: the Fremantle Diabetes Study Internal Medicine Journal 37 (1), 59–63.

government organisations including general practitioners (GPs), Diabetes Australia Ltd., Diabetes ACT Inc., Winnunga Nimmityjah Aboriginal Health Service, specialist physicians (including obstetricians) and private allied health professionals and nursing providers.

Further information about current services can be found in Appendix A.

Health workforce pressures

The workforce requirements associated with the projected increase in demand across the health and community services systems will not be able to be met using traditional workforce supply. Not only will the required numbers exceed the capacity of the labour workforce and education system, but innovations in technology will engender different models of service delivery and the development of new workforce roles. These changes will result in the enhancement of the scope of practice of existing roles and the introduction of new roles across the health system.

The ACT has one of the lowest FTE General Practitioner (GP) workforces in Australia with 60.9 FTE GPs per 100,000 population in 2006-07¹⁹ compared to a national average of 72.5 FTE GPs per 100,000 population. ACT Health is working with the ACT Division of General Practice and other stakeholders to develop and implement strategies aimed at increasing the number of GPs and other general practice workforce roles such as practice nurses.

¹⁹ Australian Government Department of Health and Ageing;
[http://www.health.gov.au/internet/main/publishing.nsf/Content/4F4DB38797665644CA256FFE00C3C7F/\\$File/Table%203.pdf](http://www.health.gov.au/internet/main/publishing.nsf/Content/4F4DB38797665644CA256FFE00C3C7F/$File/Table%203.pdf)

Future direction

The extent of the challenges to the provision of sustainable DM services has driven the development of a model of care and service delivery for the future that harnesses and makes the most effective use of available resources.

The model of care and service delivery proposed in this plan brings together recent advances in policy and best practice care and evidence on effective use of health services.

Figure 2 – Integration of policy, best practice care and evidence on effective use of health resources.



Further information and references to the documents identified above can be found in Appendix D and the References/bibliography section on page 27 of this document.

A framework for future diabetes services

The ACT is well situated because of its population size, its highly committed and skilled DM care workforce and collaborations with high quality tertiary education facilities, to develop a DM service of excellence that can serve as a model both nationally and internationally. This plan is the first stage in achieving this goal.

The model of care has been developed in the context of ACT Health policies and plans including the Clinical Services Plan, The ACT Primary Health Care Strategy, the Chronic Disease Strategy, and the ACT Health Ambulatory Care Framework as well as available literature. It changes the focus of the services delivered by ACT Health from primary care to an acute secondary and tertiary service.

The quality of life for people living with DM in the ACT will be improved by:

- Ensuring timely and equitable access to appropriate high quality DM programs and support;
- Promoting client education and self-management approaches;
- Ensuring evidence-based best practice approaches are used;
- Enabling early implementation and accessibility to improved treatment modalities; and
- Providing psychosocial support to clients for whom barriers to optimum care are identified.

DM services provided by ACT Health across the continuum from prevention, support for self management, to clinical care, treatment and rehabilitation will complement and integrate with services provided by an external service delivery network. This network will comprise general practitioners, private practitioners and facilities and community based organisations. A primary care focused ACT Community Diabetes Service facilitating and supporting self-management will complement services provided by an ACT Health Specialist Diabetes Service providing secondary and tertiary level services.

The research, teaching and skills development role of the ACT Health Specialist Diabetes Service in the ACT and the surrounding region of NSW is also an integral element of the framework.

Patients will move between the ACT Health Specialist Diabetes Service and the ACT Community Diabetes Service depending upon their needs and stability of their condition.

The model incorporates the following essential components:

- Medical supervision (by a GP, endocrinologist or other appropriate specialist);
- Effective clinical interactions between the person with DM and their health care team;

- Employment of information management systems that allow the clinical team and patient appropriate access to up to date and relevant shared information;
- Ensuring accessibility and reducing barriers to appropriate health services for all people with DM; and
- Enhancing the knowledge of people with DM of their condition, and promoting active self management approaches to assist them in meeting their targets for control of blood glucose, lipid and blood pressure.

Changes to the service delivery framework will be accompanied by a change in management process that ensures the right care is delivered in the right place and avoids creating unrealistic expectations, for example, a patient with uncomplicated Type 2 Diabetes does not have regular management provided by an Endocrinologist.

ACT Health will form a transition team whose role will be to ensure the smooth transition from the current service delivery model to an expanded service delivery model that includes an ACT Health Specialist Diabetes Service and the ACT Community Diabetes Service. The team will investigate staged implementation, information management and the physical infrastructure required to implement the plan.

Prevention, early intervention and the slowing down of progression

Diabetes prevention in the ACT will work in the context of the National Chronic Disease Strategy, the *Australian Better Health Initiative* and the *ACT Chronic Disease Strategy*²⁰, as well as the evidence of the cost effectiveness of a broad range of diabetes prevention strategies^{21,22,23,24}.

T2DM is the most common form of DM and the main driver for the sustained rise of diabetes prevalence. The fact that the risk of T2DM is strongly influenced by lifestyle factors provides an opportunity to prevent many cases. Reducing modifiable lifestyle risk factors, combined with effective education and early intervention, may make it possible to prevent T2DM at an individual and population level.

The incidence of GDM is increasing dramatically placing increased strain on obstetric services. Furthermore GDM is associated with high risk of subsequent permanent diabetes in the mother and may add to the life long

²⁰ ACT Health, The ACT Chronic Disease Strategy, 2007; www.health.act.gov.au

²¹ T. Costacou and E.J. Mayer-Davis Nutrition and the Prevention of Type 2 Diabetes; Annual Review of Nutrition Vol. 23: 147-170; July 2003.

²² M Mensink, et al; Lifestyle Intervention According to General Recommendations Improves Glucose Tolerance; Obesity Research 11:1588-1596 (2003).

²³ Monique A.M. Jacobs-van der Bruggen, et al; Lifestyle Interventions Are Cost-Effective in People With Different Levels of Diabetes Risk; Diabetes Care 30:128-134, 2007.

²⁴ Jaakko Tuomilehto, M.D., Ph.D et al; Prevention of Type 2 Diabetes Mellitus by Changes in Lifestyle among Subjects with Impaired Glucose Tolerance; N Engl J Med 2001; 344:1343-1350.

risk of obesity and diabetes for the affected babies. Programs will be developed to:

- Increase the health of women prior to pregnancy to prevent GDM; and
- Prevent T2D development in women with a history of GDM.

ACT Health will work with the community and private practice providers to identify, develop and deliver health promotion and screening activities. All services provided by ACT Health will provide some aspects of the health promotion and prevention message. Health promotion will incorporate the range of activities described as the “intermediate-advanced” strategy in the health promotion/prevention model developed by the National Centre for Social and Economic Modelling (NATSEM) for the National Public Health Partnership²⁵ including:

- Opportunistic screening by GPs and other health professionals;
- Individual and group based sessions covering nutrition, physical activity, weight management;
- Web based support and reminder letters; and
- Individual allied health professional sessions.

This combination of activities, when compared to other strategies described in the modelling:

- Is cost effective;
- Reaches many more people including people with risk factors for T2DM;
- Prevents or delays more people from getting T2DM in the first instance; and
- Has a more intensive (and effective) individually based lifestyle intervention that assists people with T2DM to manage their condition and reduce the incidence of complications.

A chronic disease research and surveillance system that offers a more coordinated approach targeting clustered risk factors for chronic disease will be developed.

Slowing down the progression of DM complications is of utmost importance and will reduce the burden not only for the people with DM but also the health care system. This will be achieved by:

- Ensuring accessibility and reducing barriers to appropriate health services for all people with DM;
- Enhancing the knowledge of people with DM of their condition, and promoting active self management approaches to assist them in meeting their targets for control of blood glucose, lipid and blood pressure. This will also include information on the importance of smoking cessation for prevention of complications;

²⁵ NATSEM (2006), Economic Modelling of the Prevention of Type 2 Diabetes in Australia.

- Ensuring the annual cycle of care as set out by the Royal Australian College of General Practitioners (RACGP) Guidelines for Diabetes Management in General Practice²⁶ is met;
- Ensuring the 2005 Clinical Practice Guidelines: Type 1 Diabetes in Children and Adolescents²⁷; are followed for all children and young people in the ACT and surrounding area;
- Promoting early detection and optimal management of DM complications;
- Enhancing coordination between community based and specialist DM services;
- Ensuring accessibility to effective DM specialist services for clients failing to meet targets of control or in need of complications review;
- Enhancing the efficiency of specialist DM services with emphasis on problem solving with referral back to general practice for the majority; and
- Management of specific DM complications such as diabetic eye, cardiac, renal, and lower limb and foot problems by multidisciplinary specialist teams.

²⁶ The Royal Australian College of General Practitioners; Diabetes Management in General Practice (12th edition) November 2005;
<http://www.racgp.org.au/Content/NavigationMenu/ClinicalResources/RACGPGuidelines/Diabetesmanagement/2006diabetesmanagement.pdf>

²⁷ The Australasian Paediatric Endocrine Group for the Department of Health and Ageing; Clinical Practice Guidelines: Type 1 Diabetes in Children and Adolescents; 2005;
<http://www.nhmrc.gov.au/publications/synopses/files/cp102.pdf>

ACT Community Diabetes Service

The ACT Community Diabetes Service will provide community-based ambulatory care including self management education and support and all services identified by the RACGP Guidelines recommended annual cycle of care. Services are likely to be based within expanded community health hubs located in Belconnen and Phillip. Some outreach services will be provided to general practice and other locations and organisations.

The ACT Community Diabetes Service will be able to access funding from a range of sources including the ACT Government, Medical Benefits Schedule payments, the Department of Veterans' Affairs, private health insurance and co-payment options.

Similar to other non-government organisations that the ACT Government contracts to provide services, the ACT Community Diabetes Service would have a contractual arrangement with ACT Health. The ACT Government will not fund aspects of this service that are funded by the Australian Government.

A key component of this service will be the promotion and support of self management of diabetes to assist people with diabetes to meet their targets for control of blood glucose, lipids and blood pressure.

Further detail on the services that will be provided by the ACT Community Diabetes Service can be found in Appendix B.

When a person satisfies the specific criteria, or their care team determines it necessary, they will be referred to the ACT Health Specialist Diabetes Service.

ACT Health Specialist Diabetes Service

ACT Health will fully fund secondary and tertiary level services, through an expanded ACT Health Specialist Diabetes Service. This service will provide care to people with DM who have acute and complex care needs, women with DIP, those with T1DM and all children and young people with all types of DM. Services will be provided by a multidisciplinary team of medical specialists, nursing staff and allied health professionals.

The ACT Health Specialist Diabetes Service will include two service delivery teams who will work and communicate closely:

- An adult team will provide services for adults with T1DM, DIP (including GDM) and unstable T2DM that is consistent with a level 4 Specialist Diagnostic and Treatment service described in the draft ACT Health Ambulatory Care Framework.
- A paediatric and young people's team (including paediatric and adult diabetes services input) will provide services for children and young people with DM up to the age of 25 enabling transition from a paediatric

to an adult style of diabetes management that is determined by the person's developmental readiness and not constrained by age limits..

The ACT Health Specialist Diabetes Service will work with other relevant areas of ACT Health to form specialised multidisciplinary teams to manage the needs of specific patients for:

- Management and education of new clients with T1DM;
- Optimisation of glycaemic control in T1DM clients through use of state of the art therapeutic strategies including education programs and insulin pump programs;
- Inpatient DM programs including coordination of perioperative DM management;
- Management of all forms of diabetes in pregnancy including a service for pre-pregnancy diabetes counselling;
- Management of complex T2DM patients including a service for starting insulin;
- High risk lower limb/foot management;
- Renal complications management; and
- Cardiovascular complications prevention and management.

All children and young people diagnosed with DM will access care through the paediatric and young people's team of the ACT Health Specialist Diabetes Service. The service will also facilitate and co-ordinate transition of young people moving from the paediatric and young people's service to the adult service.

As the regional tertiary DM service, the ACT Health Specialist Diabetes Service will identify professional development and training needs and provide opportunities for education and the development of the skills of health care workers across DM care sectors. It will also provide outreach services within the ACT and the surrounding region in NSW, to address priority needs identified in consultation with the primary care sector and Greater Southern Area Health Service.

Communication between this service and other sectors will be a high priority that will be advanced through development of improved information technology systems in line with the ACT Diabetes Chronic Disease Strategy. There will be agreed communication strategies, prioritised access, referral pathways and service eligibility that minimises system barriers to client care.

More information on this service is available in Appendix C.

Transition from paediatric services to adult services

Children and young people accessing the paediatric and young people's team will eventually need to transition to the adult team. It is accepted that paediatric and adult medicine differ in their approach to patient and family involvement. In her editorial commentary Wallegghem identifies that there is a

significant body of evidence that suggests that appropriate transitioning from a paediatric service into an adult service via a young people's service improves retention rates within the services and reduces complications in young people with diabetes.²⁸

Viner identifies that young adults often do not register with a GP and frequently drop out of the system after they leave home and leave behind childhood surveillance for immunisations, growth and development and that these young people often only make contact again with the medical profession in times of emergency.²⁹

He identifies that for effective transition from a paediatric to adult service the following are key elements:

- Timing of transfer. There is no "right" time for transition and a flexibility of approach that recognises the developmental readiness of the young person is indicated. Setting a chronological cut off may be appropriate, but should be flexible;
- A preparation and education program that provides the young person with the skills set to function in an adult clinic;
- A coordinated transition process with an appropriate lead time for the young person;
- Administrative support; and
- Primary care support for the young person's GP.

Transfer to adult care is a major life event for young people with chronic illness, and the appropriate management of this transition is an essential part of best practice in any paediatric clinic. Therefore a transition program to help young people transition to the adult team will be implemented.

The transition to the adult service will take place when the young person is ready and will be facilitated by establishment of a young adult diabetes clinic that caters for the group from 15 to 25 years of age and is jointly staffed by paediatric and adult diabetes team members.

Clinical governance

The clinical governance structure will ensure that standards in, and clinical policies that support, the services are consistent and reflect best practice.

The clinical governance structure will include a Diabetes Services Director and an Advisory Management Committee. The Director will ensure that standards in, and clinical policies that support the services, are consistent and reflect best practice.

²⁸ Norma Van Wallegghem, Bridging the Gap: Transition from Pediatric (sic) to Adult Diabetes Care, Canadian Journal of Diabetes in March 2005.

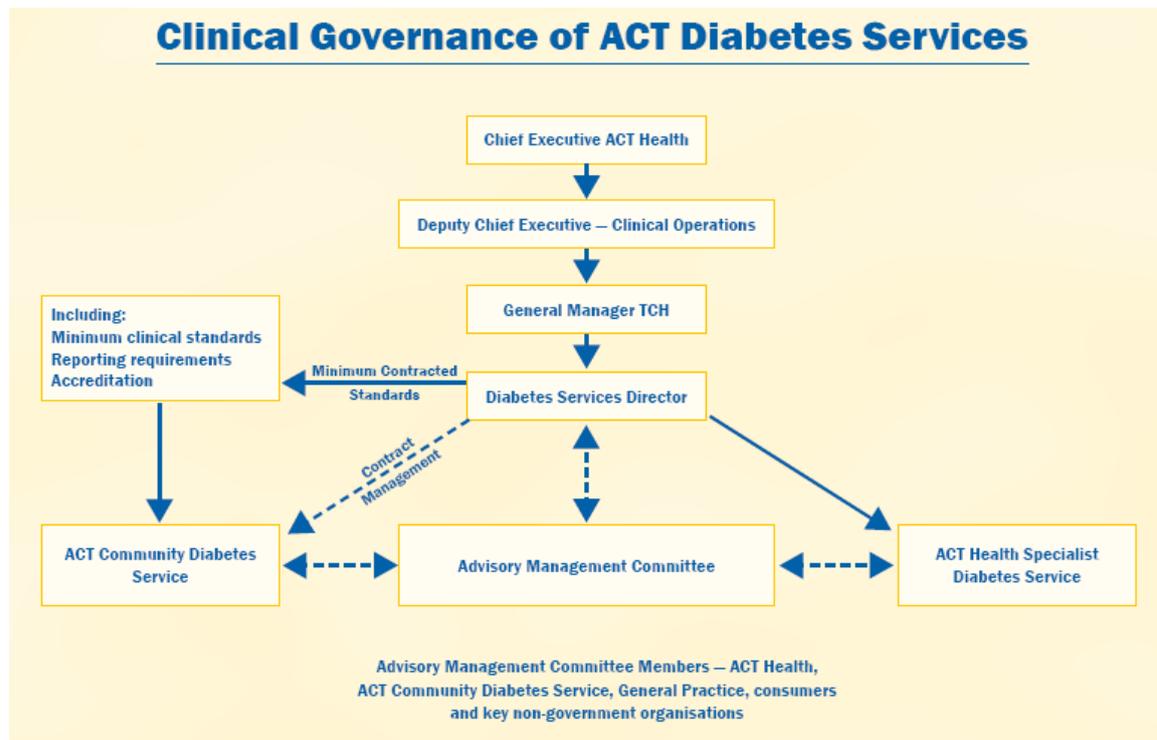
²⁹ Viner, Russell, Transition from paediatric to adult care. Bridging the gaps or passing the buck?, Arch Dis Child 1999;81:271-275.

The Diabetes Services Director will develop and implement clinical policy and benchmarks for both the ACT Health Specialist Diabetes Service and the ACT Community Diabetes Service. They will undertake regular evaluation of the services and participate in national benchmarking audits and activities. The Director will manage the contractual agreement between ACT Health and the independent service managing the ACT Community Diabetes Service.

The Director will be assisted and advised by a management team comprising senior management of both the ACT Health Specialist Diabetes Service and the ACT Community Diabetes Service.

ACT Health will facilitate a representative forum including representatives from the ACT Health Specialist Diabetes Service (adult and paediatric), the ACT Community Diabetes Service, General Practice, consumers, non-government bodies and ACT Health, that will provide advice and feedback as requested.

Figure 3 – Clinical Governance of the ACT Diabetes Service



Research/teaching and skills development

Ongoing research and teaching will inform protocols and establish and communicate a growing body of evidence on best practice.

Both the ACT Community Diabetes Service and the ACT Health Specialist Diabetes Service will include a strong research component and look to build upon conjoint appointments with universities. Clinical research will be an

integral part of employees' roles within both organisations. Future research will focus on:

- Chronic disease and health system strategies for enhanced chronic DM management;
- Ascertainment of evidence base for DM best practice;
- Involvement in investigator initiated and multi-centre clinical trials of new DM prevention strategies and treatments; and
- Translating laboratory bench findings to clinical improvements through enhancing interactions between basic and clinical scientists in DM.

Clinical teaching and skills training and development will also be key components of both services.

General practice

The usual first point of contact for a person with DM, or at risk of DM is their GP. The proposed model of care identifies a shared care primary care arrangement for people with pre-diabetes (IGT and IFG), previous GDM and T2DM where the person's GP is the lead practitioner and ACT Health and/or the person's private endocrinologist provide acute secondary and tertiary service with the continued involvement of the GP.

In most cases, the GP provides the initial diagnosis and treatment and plays a pivotal role in the development of multidisciplinary team care arrangements. GPs will work with the person with DM to develop a care plan prior to referral to the ACT Community Diabetes Service or in instances where a person has T1DM or unstable T2DM and needs medical specialist care there may be a "shared-care" arrangement between a medical specialist and GP. If the condition of the person with DM is more complex, the GP will be able to refer the person into the ACT Health Specialist Diabetes Service where they will receive specialist advice.

In the case of diagnosis of a child or young person with DM, the GP will refer the child or young person to the ACT Health Specialist Diabetes Service paediatric or youth diabetes teams.

To refer to the ACT Community Diabetes Service, the GP will develop a GP Management Plan (GPMP) and Team Care Arrangement (TCA) as defined by the Australian Government Medicare Benefits Schedule (MBS) (see Appendix E for further information relating to allied health and group services available). Through TCA the ACT Community Diabetes Service can access the Australian Government Chronic Disease Management (CDM) (Medicare) items. The utilisation of all available funding is an essential component of this model. The feasibility of its implementation from a budgetary perspective is reliant upon additional income derived through the MBS.

The ACT Community Diabetes Service will support the GP by implementing identified actions in the care plans. Where appropriate, medical specialists and members of the ACT Health Specialist Diabetes Service and the ACT

Community Diabetes Service will contribute to the development of GPMPs and TCAs.

The GPMPs and TCAs facilitate access of people with DM to a range of services including dental care, psychology, physiotherapy and exercise physiology. Services identified in GPMPs and TCAs that are not available in the ACT Community Diabetes Service will be provided and accessed as they are currently. For example, where the GPMP and TCA identify dental care needs, this will be undertaken either in the private sector or, if eligible, through the ACT Health Community Health Dental Service.

Private providers

Individuals will from time to time choose to use the services of private practitioners not affiliated with the ACT Community Diabetes Service or ACT Health. Private providers will in most instances complement the services offered by the ACT Community Diabetes Service and the ACT Health Specialist Diabetes Service. It is recognised that in some instances individuals, in conjunction with their private providers, may choose not to be referred into either the ACT Community Diabetes Service or the ACT Health Specialist Diabetes Service, but remain completely within the private system.

Private practice and non-government services and providers include:

- Endocrinologists;
- Specialist medical physicians;
- Specialist surgeons;
- Paediatricians (shared care with the ACT Health Specialist Diabetes Service Paediatric Endocrinologist and Paediatric Diabetes Service);
- Cardiologists and cardiac surgeons;
- Obstetricians;
- General Practice;
- Podiatrists;
- Dietitians;
- Optometrists;
- Ophthalmologists;
- Psychologists;
- Pharmacists;
- Aboriginal Medical Service;
- Diabetes ACT Inc.;
- Nurse practitioners;
- Orthotists and prosthetists; and
- Exercise physiologists.

Information management

Communication and information exchange between the organisations is a key to the successful and seamless delivery of services to people with DM in the ACT. Central to this is the development of a shared electronic health record. A shared electronic health record will enable authorised healthcare professionals to access an individual's healthcare history, directly sourced from clinical information such as test results, prescriptions and clinician notes. The shared electronic health record will also be able to be accessed by individuals who have received healthcare services³⁰. A core set of functioning components of an Australian shared electronic medical record should be operating across Australia by 2012³¹ and ACT Health will continue to work towards the development and implementation of a shared electronic medical record. An interim tool such as a patient held record may be introduced in the first instance.

The ACT Health Chronic Disease Management Program will implement a single patient care register for all ACT Health patients with DM, heart failure, chronic lung disease and other chronic conditions. The patient care register is intended to provide feedback data to optimise patient care and improve health outcomes. The patient care register will also be able to be linked to decision support tools for health professionals and recall and reminder systems for patients. The register will be attached to the shared electronic health record.

Workforce

Current ACT Health staff will be given the opportunity to elect to work in either or both the ACT Community Diabetes Service or ACT Health Specialist Diabetes Service without negative impact on current ACT Health employment conditions.

The ACT health system will continue to face workforce challenges. Due to the projected increase in the number of people diagnosed with DM there will need to be an increase across all professions in the public and private sectors, in order to allow people to meet their annual DM cycle of care.

Workforce training and development as well as the establishment and retention of a skilled work force will be key to the success of the services. This will be achieved through:

- Workforce planning to assist in identifying additional strategies for recruiting and retaining specialists and professionals involved in diabetes care;
- Enhancing efficiency of available DM health care workers;

³⁰ Nation E-Health Transition Authority
http://www.nehta.gov.au/index.php?option=com_docman&task=cat_view&gid=130&Itemid=139, Accessed April 2008.

³¹ Department of Health and Ageing, AHIC Communique March 2008,
<http://www.health.gov.au/internet/main/publishing.nsf/Content/pacd-ehealth-communique-mar08>, Accessed April 2008.

- A broad-based upskilling of the workforce by ACT specialist services including a bi annual Accredited National Training Program for generalist health professionals in diabetes management;
- Creating opportunities for community DM health care professionals to rotate through the specialist services for upskilling;
- Ensuring that prevention and self-management competencies as well as appropriate patient/health professional communication skills are incorporated into undergraduate and postgraduate education;
- A focus on giving clients of the service high level self-management skills;
- Increasing retention of the workforce through:
 - Establishing career pathways;
 - Giving time and resources for professional development;
 - Giving every member of the team a degree of ownership and belonging to the whole service;
- Formal mentoring and clinical placements to support health professionals working to achieve recognition as a CDE;
- Creating positions for entry level DM educators (Registered Nurses, accredited practising dietitians or pharmacists who have completed an Australian Diabetes Educators Association accredited graduate certificate in DM education but who are not yet accredited);
- Investigation of role redesign opportunities and roles such as nurse practitioners and those with a Certificate 4 in Allied Health Assistance;
- Establishing and/or enhancing formal training programs in DM through local universities and colleges including potentially working with the University of Canberra School of Nursing to foster the development of a local diabetes education course that would increase the number of nurses trained in diabetes care;
- Providing opportunities for ongoing education; and
- Accessing all potential sources of health care funding to allow growth in the number of health care workers in DM.

Implications and implementation

The scope and complexity of changes proposed by this plan will require the development of a detailed Implementation Plan.

Limitations in the available diabetes care workforce will be addressed by:

- Enhancing efficiency of available diabetes health care workers. This will include:
 - Provision of appropriate levels of administrative support;
 - Improvement of information technology particularly with respect to patient records;
 - Ensuring high level of communication between all levels of diabetes services;
- A broad-based upskilling of the workforce. Increasing the skills of workers particularly within the primary care sector will be essential to reduce the load on limited specialist services;

- Reducing the burden of unnecessary paperwork at all levels. This burden for GPs, diabetes nurse educators and allied health professionals is currently enormous and a major obstacle to attracting health professionals to these jobs. The need to complete paperwork also severely limits the time health care workers can spend with their patients;
- Provision of appropriate levels of administrative support;
- Focus on giving patients of the service, high level self-management skills;
- Increasing retention of the workforce through:
 - Establishing career pathways;
 - Allocating time, money and resources for professional development;
 - Giving every member of the team a degree of ownership and belonging to the whole service.
- Providing training opportunities and course availability for new health care professionals to enter the diabetes care positions;
- Finding means to access all potential sources (federal, territory and private sector) of health care funding to allow growth in the number of health care workers in diabetes;
- Finding new ways to work within the services (e.g. positions and novel roles for nurse practitioners).

ACT Health will form a transition team whose role will be to ensure the smooth transition from the current service delivery model to an expanded service delivery model that includes an ACT Health Specialist Diabetes Service and the ACT Community Diabetes Service. The transition team will also set the parameters for the development of contractual documentation for the ACT Community Diabetes Service.

The role of the transition team will be to:

- Oversee the development of a transition plan for a staged approach to the implementation;
- Participate in process redesign;
- Provide expert advice in the development of corporate and clinical governance frameworks;
- Ensure the development of policy and protocols to guide the expanded service provision;
- Identify resource requirements and coordinate processes to source additional funding, workforce, infrastructure and other resources;
- Be involved in senior level recruitment processes;
- Oversee the development and implementation of a communications strategy for the implementation of the transition plan;
- Manage other internal issues and problems that arise in progressing the transitional plan;
- Develop Key Performance Indicators for evaluation of DM services; and
- Monitor progress in achieving planning milestones and timeframes.

The development of this strategic services plan has identified a number of other issues that will be undertaken in the implementation phase of this project. These are listed in Appendix F.

The transition team's key performance indicators will be to:

- Complete the process redesign and development of a transition plan by mid 2009; and
- The completion of the transition within time and budget parameters.

Evaluation of the Diabetes Strategic Service Plan

The *AIHW National indicators for monitoring diabetes: Report of the Diabetes Indicators Review Subcommittee of the National Diabetes Data Working Group* was published in August 2007. The ACT will monitor the implementation of the national indices and may adjust the following as a result.

DM Services key performance areas

Key performance indicators will be further refined and based upon Outcomes and Indicators for Diabetes Education - A National Consensus Position³². Preliminary indicators are based upon the five Key Performance Areas (KPA) in the ACT Health Corporate Plan:

- Community and consumers;
- Safety and Quality Care;
- Partnerships;
- Accountability and internal systems; and
- Our people.

Targets will be set against each KPA to enable monitoring and evaluation.

Community and consumers

*Population Level Indicators*³³

- The proportion of people with DM who received DM education in the previous 12 months.
- The proportion of people with DM who received DM education in the previous 12 months from:
 - Diabetes educator
 - Dietitian
 - General practitioner
 - Pharmacist
 - Psychologist
 - Practice nurse
 - Aboriginal health worker
 - Others (please specify)
- The proportion of people with DM who received DM education in the previous 12 months who have a 'DM knowledge, understanding and application of knowledge score' of (threshold value) in a given test instrument.
- The proportion of people with DM who received DM education in the previous 12 months who are 'actively and confidently involved in DM self-care practices'.
- The proportion of people with DM who received DM patient education in the previous 12 months and have a 'self-management /behaviour change' score' of (threshold value) in a given test instrument.
- The proportion of people with DM who have received DM education in the previous 12 months and have a 'well-being/quality of life score' of (threshold value) in a given test instrument.

³² Eigenmann C, Colagiuri R. Outcomes and Indicators for Diabetes Education - A National Consensus Position. Diabetes Australia, Canberra 2007.

³³ Eigenmann C, Colagiuri R. Outcomes and Indicators for Diabetes Education - A National Consensus Position. Diabetes Australia, Canberra 2007.

*Service level Indicators*³⁴

- Knowledge and understanding as measured by scores (threshold value) on a given test instrument for:
 - knowledge and understanding
 - application of knowledge
 - problem solving skills.
- Self-determination as measured by scores (threshold value) on a given test instrument for:
 - self-efficacy
 - empowerment
 - coping skills
 - confidence with DM self-management
 - participation in goal setting and decision making.
- Self-management/self-care practices/behaviour change as measured by scores (threshold value) on a given test instrument for:
 - practical skills (i.e. self blood glucose monitoring, insulin injections, foot care)
 - medication taking
 - physical activity
 - appropriate eating
 - risk reduction (smoking, alcohol intake)
 - appropriate attendance rate for medical care
 - carrying diabetes identification
 - hypoglycaemia management
 - sick day management
 - hospital admissions (for Diabetic ketoacidosis (DKA), Hyperosmolar hyperglycaemic nonketotic coma (HHNC)).
- Psychological adjustment as measured by scores (threshold value) on a given test instrument for:
 - well-being
 - quality of life
 - mental health state.
- Effectiveness, acceptability and accessibility for Aboriginal and Torres Strait Islander peoples.

Safety and quality of care

- The proportion of people with DM meeting target HbA1c goals
- The proportion of people with DM receiving recommended complication screening at recommended frequency
- The frequency of acute admissions with DKA or HHNC
- An increase in the percentage of individuals whose HbA1c is below the recommended cut-off for age and DM type
- The number of hospital admissions
- A decrease in the number of avoidable hospital admissions

³⁴ Eigenmann C, Colagiuri R. Outcomes and Indicators for Diabetes Education - A National Consensus Position. Diabetes Australia, Canberra 2007.

- A decrease in the number of people diagnosed with T2DM when admitted for other reasons (eg. Myocardial infarction)
- A decrease in recall / return for same or similar treatment
- A decrease in the number of avoidable amputations
- An increase in the percentage of people with DM who have a care plan
- An increase in the percentage of people who meet their annual cycle of care as defined by the RACGP
- A reduction in workplace injury and the number of stress claims.

Partnerships

- Effective partnership with a non-government organization formed and Service Funding Agreement signed on time
- Funding sources for the ACT Community Diabetes Service from non ACT Government sources
- Reports delivered within agreed timeframe.

Accountability and internal systems

- An increased proportion of the health promotion budget directly attributable to diabetes awareness and prevention
- The development and maintenance of an appropriate integrated data management system
- Patient record available through a common, safe and accessible portal
- ACT Health consumers that have a single identifier
- Datasets managed through a common reporting framework
- Integrated data sets to enable benchmarking between ACT paediatric and other paediatric services
- Annual report to ACT Health Portfolio Executive on progress against the Plan.

Our people

- Reduction in staff turnover, by professional groups
- Decrease in vacancy rate, by professional groups
- Increase in the number of conjoint appointments
- Staff employed from Aboriginal & Torres Strait Islander and Culturally and Linguistically Diverse background.

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Glossary

Accredited exercise physiologist

Is a professional from within the field of exercise science who has specialised into either the health and fitness or exercise rehabilitation streams.³⁵ The exercise physiologist does not practice in isolation but collaborates with other recognised health practitioners.³⁶

(The) Australian Institute of Health and Welfare (AIHW)

The AIHW is Australia's national agency for health and welfare statistics and information. It is an Australian Government statutory authority that works closely with all state, territory and Australian government health, housing and community services agencies in collecting, analysing and disseminating data. More information can be found at <http://www.aihw.gov.au/>.

Acute care

Is a short-term secondary or tertiary level medical treatment, usually in a hospital, for people who have an acute illness.

Allied health professionals

Are qualified health professionals that include, but are not limited to: audiologists, chiropractors, dentists, dental hygienists, dental technicians, and prosthetists, dieticians, medical laboratory scientists, nuclear medicine technologists, nutritionists, occupational therapists, optometrists, osteopaths, pharmacists (community and hospital), physiotherapists, podiatrists, prosthetic and orthotic psychologists, radiographers, social workers, sonographers and speech therapists.

Ambulatory care

Encompasses services ranging from primary care through to tertiary services. Ambulatory Care has as a principal aim the notion of providing care/treatment in a patient friendly environment, either in their own home, or at another location as close to home as possible and does not normally involve an overnight stay in an inpatient facility.³⁷

Annual cycle of care

Allows for a more detailed assessment of adult diabetic control, cardiovascular risk factors and complications. It also allows for the review of referrals for specialist care or assessment.

The following table indicates minimum levels of care for all people with diabetes:

³⁵ Australian Association for Exercise and Sport Science;
<http://www.aaess.com.au/non/whatis.asp>

³⁶ The Australian Association for Exercise and Sports Science;
<http://www.aaess.com.au/non/whatis.asp>; Accessed April 2008.

³⁷ ACT Health, draft ACT Health Ambulatory Care Framework; August 2006.

RACGP annual cycle of care (T2DM)

Annual cycle of care	Frequency
Blood pressure	every 6 months
Ht/wt/waist (BMT)	every 6 months
Feet exam	every 6 months
Glycaemic control (HbA1c)	once per year
Blood lipids	once per year
Urine albumin excretion rate	once per year
Smoking review	once per year
Healthy eating plan review	once per year
Physical activity review	once per year
Self care education review	once per year
Medications review	once per year
Eye exam	at least every 2 years

Credentialed diabetes educators (CDE)

Provide comprehensive interdisciplinary diabetes self management education as defined by Australian Diabetes Educators Association (ADEA). This is distinct from general diabetes information and education provided by other health professionals and from the discipline specific diabetes education that is provided by other key members of the multidisciplinary diabetes team.³⁸

Diabetes mellitus (DM)

Diabetes mellitus (DM) defines a group of chronic debilitating illnesses characterised by relative or absolute insulin deficiency with loss of regulation of blood glucose and lipid levels.

Type 1 diabetes mellitus (T1DM, formerly known as insulin dependent or juvenile onset diabetes) is caused by immune mediated destruction of insulin producing cells. It may develop at any age but has its peak age of onset in childhood and the early adult years. Its incidence is also growing by 3% per annum.

T2DM mellitus (formerly known as maturity onset or non-insulin dependent diabetes) is the most common form of DM. The prevalence of T2DM is growing rapidly and is also being diagnosed in progressively younger individuals.

Diabetes in pregnancy (DIP) occurs in women with pre-existing T1DM and T2DM, but may also be diagnosed for the first time during pregnancy, a condition termed gestational diabetes mellitus (GDM). GDM usually resolves following the birth of the child, but is a high risk indicator for the development of permanent diabetes (mostly T2DM) in later life. All forms of DIP are associated with increased risks of adverse pregnancy outcomes.

³⁸Australian Diabetes Educators Association;
<http://www.adea.com.au/public/content/ViewCategory.aspx?id=47>

Dietitians

Dietitians (Accredited Practising Dietitians - APDs) are recognised professionals with the qualifications and skills to provide expert nutrition and dietary advice. Dietitians employed within ACT Health must have university qualifications accredited by the Dietitians Association of Australia (DAA). These qualifications equip them with skills and knowledge to advise individuals, groups and industry on nutrition-related matters. They also have the clinical training to use medical nutrition therapy to modify diets to treat various clinical conditions including, but not limited to obesity, diabetes, cancer, gastrointestinal disorders, food allergies and food intolerances.

In order to achieve the APD qualification accredited practising dietitians need to meet detailed criteria developed by DAA. These include ongoing education to keep up to date with advances in health and food sciences and a commitment to maintaining high standards.

Endocrinologist

An Endocrinologist has specialist training recognised by the specialist advisory committee of endocrinology of the Royal Australasian College of Physicians.³⁹

Endocrinologist, paediatric

A paediatric endocrinologist has specific training recognised by the specialist advisory committee of paediatric endocrinology, under the auspices of the Division of Paediatrics and Child Health of the Royal Australasian College of Physicians⁴⁰.

Endocrinology

Is the science of circulating and locally acting hormones, the glandular system which produces them and their roles in health and disease. The specialty of clinical endocrinology encompasses the diagnosis and management of disorders of the endocrine system.⁴¹

Well-known examples of hormones are insulin and thyroid hormone. Disorders of the endocrine system include diabetes, osteoporosis, menopause and thyroid disorders.⁴²

Foot care nurse

Is an enrolled or registered nurse who has undertaken specific training to perform basic foot care, i.e. nail cutting and filing to non pathological feet.

³⁹ The Royal Australasian College of Physicians,

http://www.racp.edu.au/training/adult2003/advanced/vocational/endo_chem.htm

⁴⁰ The Royal Australasian College of Physicians,

<http://www.racp.edu.au/training/paed2003/advanced/vocational/endocrinology.htm>

⁴¹ The Royal Australasian College of Physicians,

<http://www.racp.edu.au/training/paed2003/advanced/vocational/endocrinology.htm>

⁴² ACT health, The Canberra Hospital - Endocrine Department,

<http://health.act.gov.au/c/health?a=da&did=10093771>

General Practice

The Royal Australian College of General Practitioners (RACGP) definition is: “General practice is the provision of primary continuing comprehensive whole-patient medical care to individuals, families and their communities.”

General practice involves the ability to take responsible action on any medical problem with which the patient presents, whether or not it forms part of an ongoing doctor-patient relationship. In managing the patient, the general practitioner may make appropriate referral to other doctors, health care professionals and community services.

General practice is the first point of contact for the majority of people seeking health care, and often therefore the first point of referral. In the provision of primary care, much undifferentiated illness is seen; the general practitioner often deals with problem complexities rather than with established diseases. The general practitioner must be able to make a total assessment of the person's condition without subjecting them to unnecessary investigations, procedures and other treatment.

General practice has a core set of clinical characteristics and practices, unique within medicine. These characteristics and practices are defined by the General Practice curriculum, developed and maintained by the RACGP and reflected in the standards set for clinical practice and the award of Fellowship of the College (the FRACGP).⁴³

Gestational diabetes (GDM)

A form of DM that appears during pregnancy (gestation) in a woman who previously did not have DM and that usually goes away after the baby is born. Factors that increase the chance of a woman developing GDM include her age (if she's over 25), her ethnic background (high-risk groups include Aboriginal and Torres Strait Islanders, South East Asian and Pacific Islander women), her weight (if she's overweight), her family history (if a relative has DM) and her history of past pregnancies. If a woman develops GDM she has an increased chance of developing T2DM later in life.

Group sessions

Are education sessions for people with T2DM provided by a CDE, and/or accredited exercise physiologists and/or ADP.

Impaired Fasting Glucose (IFG) and Impaired Glucose Tolerance (IGT)

IFG and IGT represent stages in the natural history of disordered carbohydrate metabolism rather than a subclass of diabetes. Neither are considered clinical entities in their own right (except during pregnancy) but

⁴³ RACGP, Definition of General Practice and General Practitioner;
<http://www.racgp.org.au/whatisgeneralpractice>

rather are risk factors for the future development of diabetes and cardiovascular disease.⁴⁴

National Diabetes Services Scheme (NDSS)

Is a federally funded program that provides blood and urine testing strips, syringes and needles for special injection systems at subsidised prices, to people with diabetes who register for benefits.

Nurse practitioner

A nurse practitioner is a registered nurse educated and authorised to function autonomously and collaboratively in an advanced and extended clinical role. The nurse practitioner role includes assessment and management of clients using nursing knowledge and skills and may include but is not limited to the direct referral of patients to other health care professionals, prescribing medications and ordering diagnostic investigations. The nurse practitioner role is grounded in the nursing profession's values, knowledge, theories and practise and provides innovative and flexible health care delivery that complements other health care providers. The scope of practice of the nurse practitioner is determined by the context in which the nurse practitioner is authorised to practise⁴⁵.

Occasion of Service (OOS)

Single encounter OOS is any examination(s), consultation(s), treatment(s) or other direct clinical care attended by a non admitted patient (not admitted to hospital). Direct care is when patient contact is made; either face to face, via telephone or email for clinical care or intervention and a file notation is made in the health record.

Group encounter (OOS) is any examination(s), consultation(s), treatment(s) or other direct clinical care provided to a group of non admitted patients.

Physiotherapist

Physiotherapy is a holistic approach to the prevention, diagnosis and therapeutic management of disorders of human movement to enhance the health and welfare of the community. The practice of physiotherapy encompasses a diversity of clinical specialities to meet the unique needs of different client groups. Physiotherapy is an autonomous profession. Australian physiotherapists are registered health care professionals with university degree qualifications⁴⁶.

⁴⁴ Government of Western Australia, Department of Health, Diabetes Australia, Western Australia "Western Australian Impaired Fasting Glucose/Impaired Glucose Tolerance Consensus Guidelines", 2005;
<http://www.diabetes.health.wa.gov.au/policy/docs/Western%20Australian%20IFG%20IGT%20Consensus%20Guidelines.pdf>

⁴⁵ The Australian Nursing and Midwifery Council, National Competency Standards for the Nurse Practitioner
<http://www.anmc.org.au/docs/Publications/Competency%20Standards%20for%20the%20Nurse%20Practitioner.pdf>; Accessed August 2008,

⁴⁶ Australian Physiotherapy Association Code of Conduct; revised 2001;
<http://apa.advsol.com.au/independent/documents/download/APACodeOfConduct.pdf>

Podiatrists

Hold a qualification in podiatry recognised by the Registration Board in the state within which they work. Podiatrists must be registered. They are allied health professionals educated to diagnose and treat a wide range of foot pathologies^{47,48}.

Podiatry assistant

Is a broad term and currently these people are regarded as not being qualified to perform unsupervised basic foot care, but only provide chair-side assistance to the Podiatrist. The Certificate 4 Podiatry Assistant qualification is being considered currently by ACT Health and the Australasian Podiatry Council, as an appropriate qualification to provide basic foot care under the supervision of a registered Podiatrist.

Pre-diabetes

Is the presence of IFG and/or IGT. People with pre-diabetes are at increased risk of developing DM, and cardiovascular and other macrovascular disease. Management includes reducing cardiovascular disease risk factors, specifically lipid and blood pressure abnormalities, and smoking-cessation counselling. To help prevent progression to DM, people with pre-diabetes who are overweight or obese require intensive lifestyle intervention.⁴⁹

Primary health care

Is the provision of essential health, based on practical, scientific and socially acceptable methods and technology.

The term “primary health care” refers to a system that underpins the effective functioning of the health system as a whole. It provides basic health care supports to individuals and families and is usually the first point of contact with the health care system. As such, primary health care is ideally placed to offer health promotion, early intervention, prevention, consumer and carer focus, diagnosis and management of health. Well known examples of services operating within the primary health care system are GPs and allied health professionals.⁵⁰

RN CDE

Refers to registered nurse, credentialed diabetes educators - refer Credentialed diabetes educator.

⁴⁷ The Australasian Podiatry Council; http://www.apodc.com.au/apodc/policy_logo.pdf

⁴⁸ The Australasian Podiatry Council; http://www.apodc.com.au/apodc/policy_assistants.pdf

⁴⁹ Prediabetes: a position statement from the Australian Diabetes Society and Australian Diabetes Educators Association, eMJA, http://www.mja.com.au/public/issues/186_09_070507/twi11006_fm.html, Accessed April 2008.

⁵⁰ ACT Health, The ACT Primary Health Care Strategy 2006-2009; 2006; <http://health.act.gov.au/c/health?a=dipol&policy=1159322632>

Secondary care

Specialised ambulatory medical service for patients who are not confined to bed and need more complex specialised health care skills. Services can either be provided in primary care or hospital care settings.

Self management education

Is the process of facilitating the development of knowledge, skills, attitudes and behaviours that enable the person with diabetes to perform self-care on a day to day basis.⁵¹

Team care arrangement (TCA)

Helps to coordinate care between the GP and other health care providers. A TCA requires the GP to collaborate with at least two other health care providers who will provide ongoing treatment or services.⁵²

Tertiary care

Is specialist care, usually on referral from primary or secondary medical care personnel, by specialists working in a centre that has personnel and facilities for special investigation and treatment.

Type 1 diabetes (T1DM)

An auto-immune disease characterised by destruction of the insulin producing pancreatic beta cells by the person's immune cells. Without the capacity to make adequate amounts of insulin, the body is not able to regulate blood glucose, to use it efficiently for energy and fat breakdown and leads to accumulation of ketoacids in the body. There is a genetic predisposition to T1DM. The disease tends to occur in childhood, adolescence or early adulthood (before age 40), but it may have its onset at any age.

Type 2 diabetes (T2DM)

Is a disease marked by high levels of glucose in the blood. It results from resistance by the person's muscle, fat and liver to the effects of insulin and failure of the person's pancreatic insulin production to compensate for this insulin resistance. T2DM is the most common form of diabetes. T2DM is a lifestyle disease in many cases due to a combination of low activity levels, poor diet, and leading to excess body weight (especially around the waist) significantly increasing the risk of the disease. Genetics and ethnicity also play a major role in the risk of developing T2DM.

⁵¹ Australia Diabetes Educators Association; <http://www.adea.com.au>

⁵² Department of Health and Ageing, <http://www.health.gov.au/internet/main/publishing.nsf/Content/pcd-programs-epc-chronicdisease-pdf-brochure>, Accessed April 2008.

Appendix A – Current services

There is a range of public, private and community-based service providers that deliver a range of services to people with, or at risk of, DM in the ACT. Service providers include:

- General practitioners;
- ACT Health;
- Winnunga Nimmityjah Aboriginal Health Service;
- Specialist physicians;
- Private hospitals;
- Diabetes ACT Inc.; and
- Other private allied health professionals and nursing providers.

The ACT Health Diabetes Service provides the following services:

- Dept. of Diabetes and Endocrinology, The Canberra Hospital (TCH) – Endocrinologists;
- Dept. of Paediatrics, TCH, Paediatric Endocrinologist, Paediatricians;
- ACT Diabetes Service, Community Health - nursing, podiatry, nutrition and psychosocial services; and
- There are also many other services provided to people with DM by other specialists, nursing and allied health professionals including ophthalmologists, obstetricians and ACT Pathology.

The service provides education, assessment and clinical care to residents of the ACT and tertiary care to residents of the SE NSW.

Staff maintain a strong quality improvement program and undertake, as time allows, clinical research to evaluate and support practice.

Multidisciplinary services are provided across 8 sites in community and tertiary settings. The DM team works closely with endocrinologists and GPs in the provision of DM care.

The Diabetes Services had provided a total of 14,723 OOS from 1 January 2008 to 31 May 2008. 1,080 of these were undertaken in May 2008.

ACT Diabetes Service, Community Health: Tertiary services

Adult Ambulatory Care Centre

This service provides ambulatory stabilisation, education, assessment and clinical services to persons with T1DM, insulin requiring T2DM people, women with DIP including GDM and referred inpatients of TCH.

Intervention is via a number of multidisciplinary clinical pathways with care provided on a one to one basis and group sessions where appropriate. Access to these services is based on agreed standards.

Multidisciplinary pathways:

- T1DM ambulatory stabilisation;
- T2DM ambulatory stabilisation;
- Continuous subcutaneous insulin therapy (CSII – the insulin pump);
- GDM;
- Periodic multidisciplinary education review;
- Change in management and acute intervention reviews;
- Inpatient diabetes management; and
- After hours 'CDE led' intervention service.

High Risk Foot Podiatry Clinic

Provides services to outpatients and inpatients of TCH and Calvary 5 days per week. Patients must meet one of the following clinical eligibility criteria:

- Outpatients with the diagnosis of DM and / or:
 - Foot ulcer;
 - Active neuroarthropathy; and/or
 - Children with DM who have acute foot problems.
- Hospital inpatients requiring podiatry treatment with one of the following:
 - Diagnosed peripheral vascular disease and/or peripheral neuropathy and/or active foot ulcer;
 - Peripheral vascular disease; or
 - Peripheral neuropathy.

Neuropathic and neuro ischaemic foot ulcers require intense treatment, which is usually at weekly intervals. Staffing requirements for this type of care differ greatly from standard podiatry care requirements. The care for limb threatening wounds is complex, time consuming and requires the skills of expert podiatrists.

Paediatric and Adolescent Diabetes Service

Services children and youth with T1DM and T2DM living in the ACT and SE NSW and their families and carers. Referral is by medical referral or self-referral.

Intervention is provided on a one to one basis complemented by some parent group activities offered throughout the year. Access to these services is based on agreed standards (e.g. new T1DM admitted to TCH same day of first contact). Nationally recommended standards for review by nursing and allied health professionals are met through multidisciplinary clinics, nurse led clinics and periodic review.

This service provides:

- T1DM inpatient stabilisation;
- Continuous subcutaneous insulin infusion (CSII), insulin pumps, pump starts and ongoing support and management;
- T2DM and IGT education and assessment;
- Annual periodic education review;
- Multidisciplinary clinics;
- Adolescent clinic run fortnightly;
- Change in management and acute intervention reviews;
- Inpatient consultation;
- Limited after hours (weekend) 'CDE led' for the education of families of newly diagnosed clients in conjunction with adult service;
- School visits;
- Parent nights; and
- Limited children's groups.

ACT Diabetes Service, Community Health Community based services.

Multidisciplinary services are provided at 4 Health Centres and outreach to 4 sites on a regular basis.

Adults with pre-diabetes and T2DM (lifestyle and /or diet controlled) living in the ACT may access community services. Referral is by medical referral or self-referral.

Intervention is provided on a one to one basis and group sessions where appropriate.

Community services provide:

- T2DM education and assessment;
- Multidisciplinary periodic education review;
- Foot assessment and screening program; and
- Group sessions.

Podiatry services are available through another service in Community Health (Continuing Care Program) for people with current Centrelink Pensioner or Health Care Concession cards. Ongoing general podiatry care is offered only to patients who have been assessed by an ACT Health podiatrist as having evidence based lower limb risk factors. Patients who do not have risk factors would be eligible on a limited basis, to short-term intervention including biomechanical assessment, orthotic therapy, nail surgery and self care advice.

ACT Health Vision Screening Service

People with DM eligible for registration with the ACT Diabetes Service and Medicare are able to access this service. A medical referral is required.

Eligible people include:

- T1DM, residing in the ACT or SE NSW; and
- T2DM, residing in the ACT.

Referrals to the ACT Health Vision Screening Service are from GPs, endocrinologists, physicians, paediatricians and diabetes health professionals based on the National Health and Medical Research Council (NHMRC) endorsed national guidelines for early detection and prevention of retinopathy.

The service screens through the use of a non-mydratic camera. An ophthalmologist reports on the images taken. If retinopathy is detected the patient is referred for further assessment and treatment. If no retinopathy is detected the client is registered into a recall program and will be recalled when their next eye screen is due according to the NHMRC recommendations. Retinopathy detection rate is 10% based on 920 screenings per annum. Current Activity: 80 OOS per month (service currently operates 1 day per week).

TCH Joint Endocrine/ Obstetric Antenatal Clinic

A weekly multidisciplinary clinic where a CDE works in conjunction with an endocrinologist and the obstetric/midwifery team. The CDE reviews patient home monitoring and problem solves with eligible women in conjunction with attending endocrinologist.

Outreach services

ACT Diabetes Service provides one clinical day per month to the Winnunga Nimmityjah service. It provides education and clinical care via one to one consultation and group sessions (e.g. cooking demonstration, podiatry treatment).

There is provision of DM education and insulin commencement at Calvary John James Memorial Hospital on request.

Current 'DM related' health promotion prevention programs

- foot assessment screening and recall;
- vision screening and recall;
- multidisciplinary periodic education review;
- school visits;
- pre-diabetes information & nutrition groups; and
- 12 week programs in conjunction with YMCA: Footsteps, Tai Chi and resistance training.

Quality control

The Service currently coordinates the external quality control program conducted by the Royal Australian College of Pathologists ensuring blood glucose meters used within ACT Health are clinically reliable.

Health professional teaching & training

The staff of the ACT Diabetes Service are responsible for the delivery of an annual program of health professional training through the Staff Development Unit of ACT Health. The Service will be providing this training at Certificate 3 level in 2008 for diabetes management in the generalist setting. In 2008 this professional development will focus on practice nurse training. In addition the Service is also responsible for the training of nursing staff in the use of ward/clinic based blood glucose monitoring across community and hospital based services.

Appendix B – The future: ACT Community Diabetes Service, staff & their roles

This service will provide multidisciplinary care to adults diagnosed with, or who are at risk of developing, T2DM. The service will provide centralised coordination of DM education and allied health professional services. This service will be available to all adults including those accessing other ACT Health Services.

The major elements of this service will be:

- Health promotion and prevention being key to all aspects of service delivery. The service will provide easy to understand information to the public regarding early diagnosis and interventions that will delay/prevent the onset of the disease;
- A single point of entry that allows GPs and adults with DM access to a range of allied health professional services. There is also significant capacity for the service to work closely with GPs, to assist them in providing an optimum level of care for patients, and advise on the need for referral to the ACT Health Specialist Diabetes Service where and when it is clinically appropriate to do so;
- A multidisciplinary team that would provide a range of coordinated services that include DM education, psychosocial support, dietary advice, foot care, eye care and health promotion;
- The facilitation of self management education, which will include the development of knowledge, skills, attitudes and behaviours that enable the person with DM to perform self-care on a day to day basis⁵³. The service will utilise proven programs that provide basic information, emotional support, and strategies for living with chronic illness. It will build upon the lessons learned in the existing DM service and non-government sector as well as national and international experience;
- Testing, consultations and group prevention and education sessions as required;
- Access to fully funded allied health professionals service visits that are identified as part of the person's GPMP and TCA. Additional visits and services would be available to ensure that people are able to meet the requirements as set down in the RACGP Guidelines. Other services may also be provided in addition to the allied health professionals service visits identified in the person's care-plan. These services may be charged on a cost recovery basis;
- Culturally appropriate services will be provided for Aboriginal and Torres Strait Islander peoples and people from culturally and linguistically diverse backgrounds. The apparent key features of making interventions successful for these groups are programs which

⁵³ Australian Diabetes Educators Association and the Dietitians Association of Australia; Joint Statement on the Role of Accredited Practising Dietitians and Diabetes Educators in the Delivery of Nutrition and Diabetes Self Management Education Services for People with Diabetes; June 2005.

are consultative, collaborative, practical, and culturally appropriate⁵⁴. Interpreter services will also be available. This may include a partnership arrangement with Winnunga Nimmityjah Aboriginal Health Service. Given the likely overrepresentation of this group, screening will be increased, services will be enhanced and provided in appropriate outreach locations;

- Identification of and partnerships with appropriate community organisations to develop and enhance evidence-based programs that support chronic care;
- The inclusion of senior allied health professional specialist positions to act as mentors and allow for the appropriate training of junior staff and graduates in diabetes care and self management for chronic conditions; and
- As with existing ACT Health Community Health services, this service will only be available for ACT residents. The ACT Community Diabetes Service may choose to see residents from other states and territories on a fee for service basis.

As a minimum the ACT Community Diabetes Service would be staffed by:

- Credentialed diabetes educators;
- Dietitians;
- Podiatrists and foot care nurses;
- Accredited exercise physiologists;
- Physiotherapists;
- Psychosocial support staff;
- Nurse practitioners;
- An optometrist; and
- Administrative support staff.

Credentialed diabetes educators will also be available to run significantly more group and private sessions for those people who are able to effectively control their diabetes. Education sessions could be undertaken for those identified as having IGT or IFG. Sessions may also be available outside regular business hours. Educators will work with the individual to provide people with the skills to allow for self management.

Accredited Practising Dietitians will be available to provide group sessions to those who can effectively self manage their conditions and other sessions could be offered to those identified with IGT and IGF. Additional one-to-one sessions may also be available under this model of care.

⁵⁴ Colagiuri R, Thomas M and Buckley A. Preventing Type 2 Diabetes in Culturally and Linguistically Diverse Communities in NSW. Sydney: NSW Department of Health, 2007; http://www.health.nsw.gov.au/pubs/2007/pdf/diabetes_report.pdf

Podiatrists will play a screening role in this service, allowing the individual to access a podiatrist as per the RACGP guidelines. If a person was deemed to be at risk they would either be able to have their feet treated by a podiatrist or a foot care nurse at the service, or in more extreme cases, referred to the ACT Health Specialist Diabetes Service.

Accredited exercise physiologists will be involved in the care of people with DM. Services will be individually tailored but delivered in a group-based session. Services would in the main be designed to build people's fitness and confidence and then link through to accredited community based services.

Physiotherapists will be involved in the care of people with diabetes. Services will be individually tailored and will be delivered either individually or in group sessions. Services will be designed to address musculo-skeletal issues including mobility and falls.

Psychosocial support has been identified as a significant gap in current service delivery and will be provided to those people newly diagnosed. Ongoing services will be made available to those people who would benefit from continued counselling regarding their diabetes and other underlying conditions.

Optometry - the service will either contract or recommend optometrists to assist with the screening of people with DM. This may include the Vision Impairment Prevention Program (VIPPP) vision-screening program.

Nurse practitioner - The service may use nurse practitioners. They will utilise extended and expanded skills, experience and knowledge in assessment, planning, implementation, diagnosis and evaluation of the care to assist in the care of, and delivery of appropriate services to, clients of the service⁵⁵.

Summary of podiatry services: ACT Community Diabetes Service

Amputations are 15 times more common in people with DM than in people without DM, and 50% of all amputations occur in people with DM.

The risk for development of ulceration can be assessed by basic clinical examination of the foot⁵⁶. The provision of appropriate foot care and education aims to reduce the number of preventable amputations. Regular professional foot assessments assist with early detection, self-management education and appropriate treatment.

⁵⁵ The Australian Nursing and Midwifery Council, National Competency Standards for the Nurse Practitioner

<http://www.anmc.org.au/docs/Publications/Competency%20Standards%20for%20the%20Nurse%20Practitioner.pdf>; Accessed August 2008,

⁵⁶ Campbell LV, Graham AR, Kidd RM, Molloy HF, O'Rourke SR, Colagiuri S. The lower limb in people with diabetes. Position Statement of the Australian Diabetes Society. *MJA* 2000; 173:369-372.

The ACT Community Diabetes Service will provide varying levels of foot assessment and treatment. Foot assessments and education will be available for people with newly diagnosed T2DM in a group environment by either a podiatrist or credentialed diabetes educator. People identified as requiring more comprehensive assessment, or those returning for annual review, will be offered an individual assessment and consultation with the podiatrist. People with evidence of foot complications, such as peripheral vascular disease or peripheral neuropathy, will be offered regular podiatry foot care treatment. People who have self care issues without evidence of complications, will be offered regular basic foot care by a foot care nurse or an appropriately qualified podiatry assistant.

Adequate staffing by health care professionals will ensure that intervention will be available as deemed appropriate to the level and standard that is required.

The provision of other podiatry treatment such as foot orthoses and nail surgery will also be available. Fees for such services would be charged according to costs involved. Current charges are scheduled per ACT Government legislated schedule.

Where a foot ulcer, bacterial infection or neuroarthropathy occurs, patients will be referred to the High Risk Podiatry Clinic within the ACT Health Specialist Diabetes Service.

Appendix C – The future: ACT Health Specialist Diabetes Service: staff & their roles

The ACT Health Specialist Diabetes Service will focus on providing secondary and tertiary care for people who have acute and complex diabetic needs, all adults with T1DM, women with DIP including GDM, and children and young people with all types of DM. It will also facilitate and co-ordinate transition of young people going from the paediatric to the young adult and thence to the adult service. Professional services will be provided by specialists, nursing staff and allied health professionals.

The ACT Health Specialist Diabetes Service will include two service delivery teams who will work and communicate closely:

- An adult team will provide services for adults with T1DM, diabetes in pregnancy (including gestational diabetes) and unstable T2DM that is consistent with the recommendations of the draft ACT Health Ambulatory Care Framework; and
- A paediatric and young people's team will provide services for children and young people with DM up to the age of 25 enabling transition from a paediatric to an adult style of diabetes management that is determined by the person's developmental readiness and not constrained by age limits..

Characteristics of the teams include:

- Both teams will work together towards the transitioning of young people from the paediatric and young peoples team to the adult team at a developmentally appropriate time;
- Admitted patients with diabetes will be treated by the ACT Health Specialist Diabetes Service;
- Acute services will be provided to patients from NSW;
- The ACT Health Specialist Diabetes Service will provide some outreach services to NSW based clients;
- The service will have access to medical specialists, in particular paediatric and adult endocrinologists. These services will be integrated with the every day care of the person with DM and will be provided to all people who require it;
- The service will have access to nursing and allied health professionals. These services will be integrated with the every day care of the person with DM and will be provided to all people who require it; and
- There will be after hours advice and intervention services.

People using this service will continue to be able to access services such as DM education, podiatry, psychological support, dietary advice, vision screening, and health promotion services. Where appropriate this will be undertaken within the ACT Health Specialist Diabetes Service, however some aspects could also be delivered by the ACT Community Diabetes Service with referral from their GP, endocrinologist or the paediatric team of the ACT Health Specialist Diabetes Service. All services for children and young people will be provided through the ACT Health Specialist Diabetes Service.

Where pregnant patients have a public or private obstetrician, the obstetrician will liaise with the ACT Health Specialist Diabetes Service and play a lead role in the management of patient.

The Diabetes Services Director will be involved in the development and implementation of clinical policy and the setting of benchmarks for both the ACT Health Specialist Diabetes Service and the ACT Community Diabetes Service. The Director will manage the contractual agreement between ACT Health and the independent service managing the ACT Community Diabetes Service.

The Director will be assisted and advised by a management team comprising senior management of both the ACT Health Specialist Diabetes Service and the ACT Community Diabetes Service.

The ACT Health Specialist Diabetes Service would include:

- Endocrinologists;
- Paediatric endocrinologists;
- Credentialed diabetes educators;
- Dietitians;
- Podiatrists (including high risk podiatry);
- Accredited exercise physiologists;
- Physiotherapists;
- Psychosocial support staff;
- Paediatric diabetes educators;
- Paediatric psychosocial support staff;
- Paediatric dietitians;
- Nurse practitioners;
- Vision Screening; and
- Administration support staff.

Individuals with DM will from time to time move between the ACT Health Specialist Diabetes Service and the ACT Community Diabetes Service depending upon their needs and stability of their condition at the time. People will also access their private providers of services at any time.

Endocrinology

Additional endocrinologists will be accommodated in both the public and the private systems. The actual numbers of endocrinologists to be employed by ACT Health, while informed by the service planning process, will be determined in transition and implementation planning.

Diabetes educators

Diabetes educators will be able to provide between 8 and 10 hours of direct care to those who are newly diagnosed, those who are undergoing an acute episode or those people moving onto a different regime of insulin therapy.

Accredited Practising Dietitians

Accredited practising dietitians will play a greater role in the management of people with DM being able to provide significantly more occasions of service. They will be able to spend more time on a 1:1 basis with those who are newly diagnosed or those undergoing an acute episode. There will also be dedicated accredited practising dietitians working with children with diabetes as well as with their families.

Paediatric endocrinology services

Paediatric endocrinology services will be significantly increased and will include an additional paediatric endocrinologist.

Paediatric diabetes educator

Paediatric diabetes educator numbers will be increased to meet current benchmarks of 1 educator per 100 children with DM.

Paediatric psychosocial support

Psychosocial support for children is an essential component in ensuring that these children accept their condition and obtain the coping skills to optimally care for their DM thereby minimising their complication risk. Such support will be available and will also be offered to families of children with DM, as there are often psychosocial effects on the entire family.

Paediatric exercise physiologists

The use of exercise physiologists in the care of children will also be included to help ensure that these children remain healthy and active and are able to participate in the same activities as their peers. Targeting children and getting them to lose weight through exercise is effective and, if tackled on a family wide basis, can improve the health and well being of the entire family.

Paediatric dietitian

A paediatric dietitian will play a greater role in working with children with DM and their families to assist in the management of the condition.

Physiotherapists

Physiotherapists will be involved in the care of people with DM. Services will be individually tailored and will be delivered either individually or in group sessions. Services will be designed to address musculo-skeletal issues including mobility and falls.

Accredited exercise physiologists

Accredited exercise physiologists will be involved in the care of people with DM. Services will be individually tailored but delivered in a group-based session. Services will in the main be designed to build people's fitness and confidence and then link through to accredited community based services.

Psychosocial support

Psychosocial support has been identified as a significant gap in current service delivery and will be provided to those people newly diagnosed. Ongoing services will be made available to those people who would benefit from continued counselling regarding their conditions and other underlying conditions.

Podiatrists

Podiatrists will have an improved capacity to treat limb threatening foot ulcers and neuroarthropathy. There will also be improved capacity to attend to hospital inpatients with high risk feet or active foot problems as well as the treatment and education needs of children with, or potential for, active foot problems.

Nurse practitioner

The service will investigate the use of nurse practitioners. They will utilise extended and expanded skills, experience and knowledge in assessment, planning, implementation, diagnosis and evaluation of the care to assist in the care of, and delivery of appropriate services to, clients of the service⁵⁷.

⁵⁷ The Australian Nursing and Midwifery Council, National Competency Standards for the Nurse Practitioner
<http://www.anmc.org.au/docs/Publications/Competency%20Standards%20for%20the%20Nurse%20Practitioner.pdf>; Accessed August 2008,

Appendix D – Policy, best practice and evidence based care information

Policy

Australian Government approach:

- Chronic Disease Management Medicare items; and
- Australian Government *Australian Better Health Initiative*⁵⁸ designed to reduce the impacts of chronic disease.

ACT Government approach:

Development of ACT Health Primary Care Strategy⁵⁹ that aims to:

- Provide population based and person centred health care through:
 - Health promotion and early intervention; and
 - Chronic disease management.
- Provide continuity of health care through:
 - Integration of services;
 - Improving co-ordination between ACT Health and other ACT Government funded services; and
 - Improving coordination with Australian Government supported services.
- Achieve high quality health care through:
 - Improved information management; and
 - Evaluation and research.

The development of the draft ACT Health Ambulatory Care Framework⁶⁰ provides a guide to the development of future ambulatory care models in the ACT. The Diabetes Service Plan is consistent with the draft Framework, which identifies five levels of service:

- Level 1 - primary prevention focused at the population;
- Level 2 - usual care for people requiring health proposed intervention;
- Level 3 - intensive community case management for people with, in this case, diabetes;
- Level 4 - specialist diagnostic and treatment for people (with diabetes); and
- Level 5 - inpatient care for people requiring overnight hospitalisation.

⁵⁸The Australian Government; Australian Better Health Initiative: Promoting Good Health, Prevention and Early Intervention;
[http://www.health.gov.au/internet/wcms/Publishing.nsf/Content/8F84093D1E4FA53FCA25711100261015/\\$File/factsheet3.pdf](http://www.health.gov.au/internet/wcms/Publishing.nsf/Content/8F84093D1E4FA53FCA25711100261015/$File/factsheet3.pdf)

⁵⁹ ACT Health, The ACT Primary Health Care Strategy 2006-2009; 2006;
<http://health.act.gov.au/c/health?a=dipol&policy=1159322632>

⁶⁰ ACT Health, draft ACT Health Ambulatory Care Framework; August 2006.

Best practice care

- RACGP Guidelines for Diabetes Management in General Practice⁶¹;
- National Evidence Based Guidelines for the Management of Type 2 Diabetes Mellitus⁶²;
- Clinical Practice Guidelines: Type 1 Diabetes in Children and Adolescents⁶³;
- NHMRC Clinical Practice Guidelines for the Management of Overweight and Obesity in Adults⁶⁴; and
- Evidence Based Practice Guidelines for the Nutritional Management of Type 2 Diabetes Mellitus for Adults (2006).

Evidence on effective use of health resources

- Recent Modelling by NATSEM for the National Public Health Partnership⁶⁵ on the cost effectiveness of a range of secondary prevention activities.

⁶¹ The Royal Australian College of General Practitioners; Diabetes Management in General Practice (12th edition) November 2005.

⁶² Australian Centre for Diabetes Strategies Prince of Wales Hospital, Sydney for the Diabetes Australia Guideline Development Consortium; National Evidence Based Guidelines for the Management of Type 2 Diabetes Mellitus; 2005;
http://www.nhmrc.gov.au/publications/synopses/_files/di7.pdf

⁶³ The Australasian Paediatric Endocrine Group for the Department of Health and Ageing; Clinical Practice Guidelines: Type 1 Diabetes in Children and Adolescents; 2005;
http://www.nhmrc.gov.au/publications/synopses/_files/cp102.pdf

⁶⁴ NHMRC Clinical Practice Guidelines for the Management of Overweight and Obesity in Adults; September 2003;
[http://www.health.gov.au/internet/wcms/Publishing.nsf/Content/obesityguidelines-guidelines-adults.htm/\\$FILE/adults.pdf](http://www.health.gov.au/internet/wcms/Publishing.nsf/Content/obesityguidelines-guidelines-adults.htm/$FILE/adults.pdf)

⁶⁵ Brown, L and Yap, M; Economic Modelling of the Prevention of Type 2 Diabetes in Australia; National Centre for Social and Economic Modelling, 2006.

Appendix E – Allied health group services under Medicare for patients with T2DM

Adapted from Allied health group services under Medicare for patients with Type 2 diabetes - Information for GPs accessed through The Australian General Practice Network, chronic disease management⁶⁶.

Overview

From 1 May 2007, new allied health items (81100 to 81125) allow people with T2DM to receive Medicare rebates for group services provided by eligible diabetes educators, exercise physiologists and dietitians, on referral from a GP.

The new group services items provide another referral option for GPs in the management of patients with T2DM.

These services are in addition to the five individual allied health services available to eligible patients each calendar year under items 10950 to 10970.

Which patients are eligible?

To be eligible for allied health group services, a patient must:

- have T2DM;
- have a relevant care plan in place (see below); and
- be referred by their GP to an eligible allied health professional (see below).

Patients who will most benefit from group services are likely to be those who:

- demonstrate a readiness to change;
- are able to contribute to group processes effectively; and
- have a potential for self management.

Relevant care plan

Before referring patients, the GP must put in place either:

- a GP Management Plan – item 721; or
- where a patient has an existing GP Management Plan, the GP has reviewed that plan under item 725; or
- for a resident of a residential aged care facility, the GP must have contributed to, or reviewed, a care plan prepared by the facility (item 731).

Patients being referred by a GP for allied health group services under items 81100 to 81125 do not need to have a Team Care Arrangements service (item 723). However, if the GP also wishes to refer the patient for individual allied health services under items 10950 to 10970, it will be necessary to provide a Team Care Arrangements service (item 723) in order to meet the eligibility requirements of those items.

⁶⁶The Australian General Practice Network, Chronic Disease management
<http://www.adgp.com.au/site/index.cfm?display=5665>

Eligible allied health professionals

Only diabetes educators, exercise physiologists, podiatrists and accredited practising dietitians who are registered with Medicare Australia are eligible to provide services under items 81100 to 81125.

Referral requirements

To access allied health group services, patients must be referred by their GP to an eligible diabetes educator, exercise physiologist, podiatrist or dietitian. The GP may refer a patient either to a specific diabetes educator, exercise physiologist, podiatrist or dietitian, or to an allied health practice offering these services.

The allied health professional will initially conduct an individual assessment under items 81100, 81110 or 81120 to prepare the patient for an appropriate group services program.

A Medicare rebate is only payable for one allied health assessment service each calendar year. If there is any doubt about whether a patient has already claimed an assessment item in that calendar year, the GP can check with Medicare Australia by telephoning 132 011.

Referral form

The Referral form for allied health group services under Medicare (provided by the Department of Health and Ageing) must be used by GPs to refer patients. The form can be downloaded from the Department's website at www.health.gov.au/epc, or ordered by phoning (02) 6289 4297 or faxing (02) 6289 7120.

GPs are also encouraged to attach a copy of the relevant part of the patient's care plan.

Allied health group services

If the patient is assessed by an eligible allied health professional as suitable for group services, the patient may then receive up to eight (8) group services each calendar year.

Allied health group services may be delivered by one type of allied health professional (eg 8 diabetes education services) or by a combination of providers (eg 3 diabetes education services, 3 dietitian services, and 2 exercise physiology services). The combination of group services to be offered will be determined as part of the assessment by the allied health professional.

In some areas, different types of group services may be offered by allied health providers (eg courses targeting newly diagnosed patients, refresher courses or courses covering specific types of treatment and self management).

Reporting requirements

On completion of both the assessment service and group services program, the allied health professional must provide, or contribute to, a written report back to the referring GP in respect of each patient. After the assessment service, the GP will receive a written report outlining the assessment undertaken, whether the patient is suitable for group services and, if so, the nature of the group services to be provided. After the group services program, the GP will receive a written report describing the group services provided for the patient and indicating the outcomes achieved.

Out-of-pocket expenses and Medicare Safety Net

Allied health professionals can determine their own fees for the professional service. Charges in excess of the Medicare benefit for the allied health items are the responsibility of the patient. Out-of-pocket costs for eligible services will count toward the Medicare safety net for that patient.

Private health insurance

Patients will need to decide if they wish to use Medicare or their private health insurance cover to pay for these services. Private health insurance ancillary cover cannot be used to 'top up' the Medicare rebate.

Further information

Further information about items 81100 to 81125 is available on the Department of Health and Ageing website at: www.health.gov.au/epc or by phoning (02) 6289 4297.

Information about these items, including explanatory notes and item descriptors, is also contained in the Medicare Benefits Schedule available online at: www.health.gov.au/mbsonline

Appendix F – Summary of identified Implementation Committee investigations

The planning process has identified a number of areas for further investigation that will be undertaken in the transition/implementation phase of this project. This appendix identifies a range of these investigations but is by no means exhaustive.

Transition Plan

- How the service will move from current arrangements to new arrangements

Implementation Plan

- Ensuring that services:
 - Work within ACT Government policy (e.g. the Chronic Disease Strategy); and
 - Work within relevant Australian Government policy (e.g. the Australian Better Health Initiative).
- Draft service budgets and business plan that include:
 - A risk register and a risk management plan;
 - Clear goals and timeframes;
 - Projected expenditure and revenue; and
 - Staffing establishments.
- Governance of the service:
 - Identify appropriate governance of the services;
 - Identify target dates for key deliverables;
 - Bench marking best practice;
 - Working with Australian Government in the seamless delivery of services;
- Ensure compliance with the law; and
- Identify any need for legislative change.

Contracts

- Work with ACT Government Solicitor's Office in development of contracts and related documentation.

Operational Procedures

- Referral pathways into the service and between services:
 - Mechanisms to allow for access to more allied health professional visits;
 - Mechanisms for bulk billing services;
 - Mechanisms for accessing private health insurance;
 - Mechanisms for charging;
 - Mechanisms for group sessions; and
 - Mechanisms to ensure the most vulnerable are protected.
- Clinical pathways and protocols.
- Outreach services.
- Research - mechanisms that allow staff to undertake research.

Client engagement

- Education campaign about the new service:
 - Training;
 - Awareness of team care arrangements and management plans;
 - Encouraging compliance;
 - Encouraging self management under medical supervision;
 - Mechanisms that allow the most vulnerable access to GP/Medical supervision;
- Engagement of specific communities:
 - How to engage and deliver appropriate services to the ATSI and CALD community;
 - More complex cases;
 - Ensuring continuity of care;
 - Specifics on working with Winnunga Nimmityjah; and
 - Youth friendly services.

Workforce

- GP Engagement:
 - Training;
 - Awareness; and
 - Encouraging the use of team care arrangements and management plans while managing resource implications for GPs.
- Staff:
 - Identifying workforce issues in both services;
 - Mechanisms for engagement (hiring) of staff;
 - Mechanisms for attracting staff;
 - Mechanisms for training of staff;
 - Mechanisms for rotation of staff between organisations;
 - Model of staffing between agencies; and
 - Ensuring continuity of care.

Infrastructure requirements

- Office space needs;
- Administrative support staff needs;
- Identify Information Management needs and infrastructure of the service;
- Treatment rooms;
- Parking and transport; and
- Future needs.

Appendix G – Patient flow through the proposed framework

