Diabetes: Evidence Summary

Introduction:

Three quarters of Australians over the age of 65 have at least one chronic condition that puts them at risk of serious complications and premature death. Chronic conditions will be the major challenge for health systems in the foreseeable future,

The current Australian health care system of the Pharmaceutical Benefits Scheme (PBS), Medicare Benefits Scheme (MBS) and acute hospital systems is one that was constructed 40 years ago – to address a very different burden of disease to what we face today. Evidence shows that Australia's primary care services are not working anywhere near as well as they should. At best our primary care system provides only half of the recommended care it should for chronic conditions. Nearly a million Australians have been diagnosed with diabetes, but only about a quarter get the care that is recommended each year. For the Campaspe context, we experience higher rates of diabetes than the Victorian average and it is well documented that those living with disadvantage have more chronic disease.

Many modifiable risk factors influence the development of diabetes. The majority of conditions are preventable and it is known that behavioral risks are often not managed in the primary care sector. Care must be proactive rather than reactive; it must focus on partnership with the patient, rather than the focus on health professionals, and it must focus on outcomes.

The evidence shows that a consistent approach to specific diseases helps primary care more effectively prevent and manage chronic conditions such as diabetes. Evidence from around the world suggests that much greater emphasis needs to be placed on service coordination and integration for people with chronic disease [47]

Campaspe data:

Summary

Diabetes: The estimated number of Campaspe residents with diabetes* in 2011 was 2,238 and this figure has more than doubled since 2001. As a proportion of population, the prevalence of diabetes in Campaspe residents increased from 2.4% in 2001 to 5.7% in 2011. In 2011, the rate of diabetes in Campaspe was higher than the Victorian average.

Type 2 diabetes: compared to Victoria (5.0), Campaspe had a similar proportion (4.8) of population aged 18 years and over that reported having doctor-diagnosed type 2 diabetes.

Cardiovascular disease: In 2007/08, Campaspe Shire (18.1) had a higher estimated rate of circulatory system diseases per 100 population than Victoria overall (17.3). Within the PCP region all SLAs were also higher than the Victoria average with Campaspe – Echuca SLA having the highest rate in the region, while Campaspe – South SLA had the lowest.

Hypertensive disease: In 2007/08, Campaspe (11.0) had a higher estimated rate of hypertensive disease per 100 population than Victoria overall (10.3). Within the PCP region all SLAs were also higher than the Victoria average with Campaspe – Echuca SLA having the highest rate in the region, while Campaspe – South SLA had the lowest.

Health Checks: Compared to Victoria, Campaspe had a lower proportion of population reported having had a blood pressure, cholesterol or blood glucose check in the two years preceding 2011-12.

People Who Had Type 2 Diabetes And Were Overweight/Obese

Synthetic predictions of population that had type 2 diabetes and that was also overweight or obese were undertaken in 2008 by the Public Health Information Development Unit using the 2007-08 National Health Survey data. Compared to the regional Victoria (3.2) and Victoria (3.1) average, Campaspe had a similar rate of population that had type 2 diabetes and that was also overweight or obese.

People who had type 2 diabetes and were overweight/obese, ≥18 years (2007-08)

	No.	Rate per 100
Campaspe – Echuca	342	3.1
Campaspe – Kyabram	350	3.1
Campaspe – Rochester	233	3.1
Campaspe - South	130	3.2
Regional Victoria	127,536	3.2
Victoria	**37,734**	**3.1**

Public Health Information Development Unit – 2011

Other Health Checks

Compared to Victoria, a higher proportion of population aged 18 to 49 years reported having had a blood pressure, cholesterol or blood glucose check in the two years preceding 2008. However, a lower proportion of population aged 50 years and over reported having had the same checks over the same time-frame.

Self reported health checks (2011-12)

Health check*	Campaspe	Loddon Mallee	Rural Victoria	Victoria
Blood Pressure	77.3	81.7	80.9	81.9
Cholesterol	59.2	58.3	57.0	60.4
Blood Glucose	53.6	54.6	54.7	55.6

*Victorian Population Health Survey 2011-12 * self reported*

Self Reported Health Checks by age (2008)

	Health check*	Campaspe	Victoria
Blood pressure checked in last two years	18 – 49 yrs old	75.0	**70.6**
	50 yrs and older	91.0	**93.1**
Cholesterol checked in last two years	18 – 49 yrs old	44.5	**39.7**
	50 yrs and older	81.4	**81.9**
Test for diabetes or blood glucose check in last two years	18 – 49 yrs old	47.6	**39.1**
	50 yrs and older	71.4	**72.1**

*Victorian Population Health Survey 2008. * self reported*

State-wide findings from the 2011-12 Victorian Population Health Survey also indicate that, over the two years prior to the survey:

- Females were more likely than males to have had a blood pressure check
- Males were more likely than females to have had a blood test for cholesterol and were slightly more likely to have had a blood glucose check, and
- The probability of having had any of the three checks increased with age.

Most Common Ambulatory Care Sensitive Conditions (ACSCs)

In 2010/11, the top two ACSCs in Campaspe were the same as those for Rural Victoria and Victoria: diabetes complictions and dental conditions. The rates of diabetes complictions, dental conditions, cellulitis, congestive cardiac failure, asthma, angina, convulsions and epilepsy were higher in Campaspe than the Victorian average.

Top Ten ACSC Standardised# Admission Rates* by LGA – Ranked (2010/11)

Campaspe		Rural Victoria		Victoria	
Diabetes		Diabetes		Diabetes	
Dental conditions		Dental conditions		Dental	
Cellulitis		COPD		COPD	
COPD		Pyelonephritis		Pyelonephrit	
Congestive cardiac		Congestive		Congestive	

Asthma		Cellulitis		Asthma	
Pyelonephritis		Asthma		Cellulitis	
Angina		Angina		Iron	
Convulsions &		Ear, nose and		Angina	
Iron deficiency		Convulsions &		Convulsions	

Victorian Health Information Surveillance System 2012 # Age standardised to Victorian population 2006
** Rate per 1,000 person*

Diabetes

The estimated number of Campaspe residents with diabetes* in 2011 was 2,238 and this figure has more than doubled since 2001. As a proportion of population, the prevalence of diabetes in Campaspe residents increased from 2.4% in 2001 to 5.7% in 2011. In 2011, the rate of diabetes in Campaspe was higher than the Victorian average.

Diabetes Prevalence (2001 – 2011)

Location		2001	2011
Campaspe	Number of people with diabetes	884	2,238
	Proportion of population with diabetes	2.4%	5.7%
Victoria	**Proportion of population with diabetes**	**2.0%**	**4.5%**

Diabetes Australia - Victoria 2011 Includes diabetes type 1, type 2, gestational diabetes, and other forms of diabetes

Type 2 Diabetes

The Victorian Population Health Survey 2011-12 gathered information at the LGA level on prevalence of self reported doctor-diagnosed type 2 Diabetes. The Survey found that, compared to Victoria, Campaspe had a similar proportion of population aged 18 years and over that reported having doctor-diagnosed type 2 diabetes.

Type 2 Diabetes Prevalence* (2011-12)

Location	%
Campaspe	4.8
Loddon Mallee Region	4.4
Rural Victoria	4.7
Victoria	**5.0**

*Victorian Population Health Survey 2011-12 * self reported*

State-wide findings from the Victorian Population Health Survey also indicate that across Victoria:

- Type 2 diabetes is more prevalent in males than in females (6.0% v's 4.1%)
- Type 2 diabetes prevalence increases with age
- Males who were employed or who earned more than $40,000 were significantly

less likely to report having type 2 diabetes

- Males not in the labour force, who earned less than $40,000, who had high or very high levels of psychological distress or who were sedentary were significantly more likely to report having type 2 diabetes
- Females with tertiary level education, who were employed or who earned $100,000 or more were significantly less likely to report having type 2 diabetes, and
- Females who had high or very high levels of psychological distress or who were sedentary were significantly more likely to report having type 2 diabetes.

Indigenous people and Diabetes:

"Diabetes, especially type 2 diabetes, is a significant health problem among Indigenous people, but it is not possible to reach a single estimate of the prevalence due to considerable limitations in data collection...

Mortality statistics provide an indication of the substantial impact of diabetes and, despite its limitations, hospitalisation data also confirms the much greater impact of the condition among Indigenous people than among non-Indigenous people.

After adjusting for differences in the age structures of the two populations, the level of diabetes/high sugar was around 3.4 times more common for Indigenous people than for non-Indigenous people. The ratio between Indigenous and non-Indigenous females was higher than that between Indigenous and non-Indigenous males.

The prevalence of diabetes increases with age, with the increase occurring at much younger ages among Indigenous people – the prevalence reported by Indigenous people aged 35-44 years was five times that reported by non-Indigenous people."

From: Thomson N, MacRae A, Burns J, Catto M, Debuyst O, Krom I, Midford R, Potter C, Ride K, Stumpers S, Urquhart B (2010) Overview of Australian Indigenous health status, April 2010. Perth, WA: Australian Indigenous HealthInfoNet

In 2004-05, national figures indicated that a significantly higher proportion of Indigenous people reported having diabetes or high sugar levels as a long term health condition – compared to the non-Indigenous population.

Proportions of people reporting diabetes/high sugar levels as a long-term health condition, by Indigenous status, Australia, 2004-2005

Age-Group (years)	Indigenous population	Non-Indigenous population
15-24	**1.0**	0.5
25-34	**4.3**	0.6
35-44	**10.0**	2.0
45-54	**20.7**	4.0
55+	**32.1**	11.6

Overview of Australian Indigenous health status, April 2010.

Policy Review:

Commonwealth

The Australian National Diabetes Strategy 2016-2020[4] outlines seven goals for action, with listed potential areas for action and measure;

1. Prevent people developing type 2 diabetes
2. Promote awareness and earlier detection of type 1 and type 2 diabetes
3. Reduce the occurrence of diabetes-related complications and improve quality of life among people with diabetes
4. Reduce the impact of pre-existing and gestational diabetes in pregnancy
5. Reduce the impact of diabetes among Aboriginal and Torres Strait Islander peoples
6. Reduce the impact of diabetes among other priority groups
7. Strengthen prevention and care through research, evidence and data

Funding Structures

The Medicare Benefits Schedule (MBS): The MBS provides subsidies for patient care, including Medicare items;

- Chronic Disease Management items[6], for the planning and management of chronic and terminal conditions (GPMP).
- up to five Medicare subsidised allied health services that are directly related to the treatment of their chronic condition. This includes diabetes[2]
- Diabetes Annual Cycle of Care [21]
- Telehealth[33]
- Case Conferencing[34]
- Health Checks for those at risk

The Pharmaceutical Benefits Scheme (PBS) provides subsidies for medicines used in the treatment of diabetes[2]

The National Diabetes Services Scheme (NDSS)
The NDSS, which is managed by Diabetes Australia through an agreement with the Department of Health provides subsidised to persons with diagnosed diabetes who are registered with the Scheme[2]

The Insulin Pump Programme
A full or sliding scale subsidy payment for those with type 1 diabetes, under 18 years of age, and does not have private health insurance [5]

National Health and Medical Research Council (NHMRC) research into diabetes conditions has been identified by the NHMRC as a major focus in its 2013-15 Strategic Plan[2]

Murray Primary Health Network - Murray Health Pathways Project 2016[32], Telehealth

Data Collection

The Australian Institute of Health and Welfare (AIHW) is funded to support national surveillance and monitoring of chronic conditions, including diabetes[2].
The Australian Bureau of Statistics monitors prevalence of diabetes through the Australian Health Survey covering the National Health Survey (NHS); the National Nutrition and Physical Activity Survey (NNPAS); and the National Health Measures Survey (NHMS)[3].

Victorian Context:

Chronic Disease Management

Department of Health and Human Services Chronic Disease Management Guidelines from 2008 are currently being updated[30]

Primary Care Partnerships – 2013-2017 Program Logic includes;

- Early Intervention and Integrated Care (including Integrated Chronic Disease Management and Service Coordination)[29]
- Campaspe Primary Care Partnership Strategic Plan 2013-7[31]

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Clinical Guidelines:

A number of resources exist for the clinical support and pathways for diabetes types. The following is a list of the guidelines available with links provided in the references section. The evidence shows that a consistent approach to clinical care pathways for specific chronic diseases can make a real difference to outcomes[47]

All Types

Loddon Mallee Region Pathways for Prediabetes, Type 1, Type 2 and Gestational Diabetes: Developed for the Department of Health and Human Services - Loddon Mallee Region [21] outlining clinical indicators, desired outcomes, and the roles of the multidisciplinary practitioners.

Type I

- Type 1 diabetes in children - emergency management[13]
- NHMRC approved - National evidence based clinical care guidelines for type 1 diabetes in children, adolescents and adults [18] – these guidelines also refer to the mental health component with type I diabetes.

Type II

- NHMRC approved National Evidence Based Guideline on Secondary Prevention of Cardiovascular Disease in Type 2 Diabetes [12] for the management of hypertension, hyperlipidemia and application of anti-thrombotic therapy.
- NHMRC approved National Evidence-Based Guideline on Prevention, Identification and Management of Foot Complications in Diabetes[20]
- General Practice Clinical Guidelines of Type 2 Diabetes (a joint initiative between RACGP and Diabetes Australia)[6]
- The Chronic Care Model[9] has been acknowledged a tool to identify fundamental elements of a healthcare system that supports high quality care to those with chronic disease such as diabetes [8, 21]
- Type 2 diabetes - kidney disease; prevention and management [14] and kidney function assessment [15]
- NHMRC approved Guidelines for the Management of Absolute Cardiovascular Disease Risk
- Campaspe Type 2 Diabetes Consumer Information/Education Guidelines Package – 2011

Type I & II

- Dietary Management in Diabetes [16]
- Peri-Operative Diabetes Management Guidelines[19]
- Medicare Annual Cycle of Care Guidelines, reflecting the minimum standard of care for patients with type I and II diabetes[21]
- Guidelines for Managing Diabetes at the End of Life [44]

Gestational Diabetes Mellitus

- ADIPS Consensus Guidelines for the Testing and Diagnosis of Hyperglycaemia in Pregnancy in Australia and New Zealand [23]
- The Australasian Diabetes in Pregnancy Society consensus guidelines for the management of type 1 and type 2 diabetes in relation to pregnancy [24]

Evidence based strategies/ Intervention evidence:

Systematic reviews and meta-analysis

Best-practice, high-quality diabetes care is best achieved when health care professionals work seamlessly and in partnership across primary health, community and specialist care services with direct consumer (the person with diabetes) – Primary Health Networks have been identified at a national level to support service coordination[4]. The role of the Service Coordination Framework[22] in supporting this work is acknowledged in ensuring that the person with diabetes, or those at risk of developing diabetes maximise their opportunities for accessing the services, prevent complications or disease progression and achieve their goals[21].

The Australian National Diabetes Strategy[4] lists the following areas;

For Health Promotion and Primary Interventions

- Reduce modifiable risk factors in the general population
- Develop and implement community-wide, culturally relevant awareness programmes to address the priority group of Aboriginal and Torres Strait Islander peoples
- Develop and implement strategies that acknowledge the priority groups culturally and linguistically diverse communities (CALD),older Australians, rural and remote communities and mental health consumers
- Make preschool, school and child care diabetes safe environments

For Secondary Interventions

- Identify high-risk individuals and consider effective, evidence-based interventions
- Promote awareness and earlier detection of both Type 1 diabetes and Type 2 diabetes
- Expand consumer engagement and self-management

For Tertiary Interventions

- Develop and implement quality improvement processes
    - an example of a quality strategy would be the uptake of the Patient Administered Assessment of Chronic Illness Care (PACIC) audit tool that Campaspe PCP is reporting on in 2016 to DHHS
    - an example would be the National Association of Diabetes Centres[45], that is being undertaken by the Hume Region, known as the “Hume Diabetes Service Improvement Collaborative”
- Use information and communication technology
- Improve workforce capacity
- Provide mental health care for people with diabetes, with regular monitoring
- Improve affordable access to medicines and devices
- Improve funding mechanisms

- Develop nationally agreed clinical guidelines, local care pathways and complications prevention programmes
- Strengthen and expand transition from child to adult services
- Provide high-quality hospital care
- Develop a national research agenda / Improve and expand data linkage and facilitate ease of access

WORKSHOP DISCUSSION: Screening and Early identification; Chronic Disease management approaches

Known Diabetes - Type I and/or Type II

Secondary Interventions

- Acknowledging that consumers with low health literacy standards are at greater risk for poor diabetes outcomes[7, 39], and higher risk of hospital admissions [39]. It impacts on their ability to manage their health, and is a problem estimated to effect 60% of Australians [39]. A patient centred approach is recommended[6].
- The clinical culture must support patient engagement to support shared decision making [39].
- Embedding health literacy into systems, ensuring effective communication and integrating health literacy into health promotion activity are some objectives [40]. Specific strategies are available in the National Statement on Health Literacy[40].
- Brief interventions to bring about behaviour change[1]
- Collaborative multidisciplinary teams are best suited to provide diabetes care and facilitate patient self-management[6] – as supported in the regional pathways and Medicare structures [21]
- Self-management; The DESMOND Program is a specialised education program that appears effective for patients newly diagnosed with type 2 diabetes in providing weight loss and smoking cessation and with positive improvements in beliefs about illness. It appears to be cost effective however is currently only available in Western Australia[6]
- Several studies suggest that optimal use of clinical information systems (recall systems) improve diabetes care [6]
- The Problem Area in Diabetes tool is a psychometrically sound tool for detecting diabetes related stress [6, 21].
- Self-management opportunities be explored – to develop self-efficacy and problem solving to deal with issues, symptoms and treatment with the application of lifestyle changes [21]
- Adults being assessed for cardiovascular risk should also be assessed for depression and other psychosocial factors [25]
- Case Conferencing – chronic disease management demonstrating multidisciplinary practice [34]
- Use of Telehealth to access specalists[33] - studies show that it can improve clinical outcomes for people with diabetes and reduce costs/barriers to treatment [36, 37]

WORKSHOP DISCUSSION: What impact is health literacy having for service priovision; What IT developments might assist with recall and communications systems; telehealth

Diabetes Complications

- Regular assessment, monitoring of pathology and effective treatments are important in preventing complications, costs, hospital admissions, mortality [27]
- Treatment and assessment in the Aboriginal and Torres Strait Islander community to reduce kidney failure, which the population experiences high rates of morbidity of [27]
- Diabetes-related lower limb amputation hospital admissions 18 years and over – National Health Variation Report shows that public and private hospitals and primary health networks need to adopt risk-stratified levels of support for managing diabetes care, including earlier diagnosis and intervention [39].
- Access to specialists who are central to the shared management of care for many such patients and have a critical role in assessment, complex care planning and consultancy support and advice to patients and their primary health care teams [46]
- Improving access to palliative care services [46]
- Use of Guidelines that inform end-of-life care [44]
- Advance Care Planning

Pre-Diabetes

- Adults with prediabetes or diabetes can be strongly advised that the health benefits of modest weight loss include prevention, delayed progression or improved control of type 2 diabetes and reduces cardiovascular risk factors [41]
- Self-management; L!FE Programs are offered to consumers to rate 'high' on the AUSDRISK tool. Offered by a telephone coaching service, or group sessions, it aims to reduce the risk of developing type II diabetes and cardiovascular disease[6]
- Multiple studies have validated the Australian type 2 diabetes risk assessment tool (AUSDRISK) [10], a screening tool that can be completed by a health professional or by a patient aged 40 years and over, or from 18 years of age for ATSI people. Those* with 'high' scoring results to access a Medicare funded risk evaluation by their General Practitioner. It is not suitable for the general population[21]
  *those that are aged 40-49 years, or ATSI 15-54 years of age.
- Lifestyle modifications that focus on increased physical activity, dietary change and weight loss should be offered to all individuals at high risk of developing type 2 diabetes (this includes structured programs)[6] and efforts be recognised to reduce further risk of complications through secondary prevention [27]
- Primary preventions through the promotion of healthy lifestyle (intensive exercise) and diet and/or medication plays an important role in reducing risk of developing diabetes [27]

LOCAL CONTEXT: Lifestyle Modification courses and Life! Programs are supported by Kyabram District Health, Rochester and Elmore District Health, Goulburn Valley Health Rushworth and Echuca Moama Family Medical Practice.

Undiagnosed Diabetes

It is severely under-detected and therefore underreported - the ability for treatment to be in place is delayed to prevent complications [28, 27]

LOCAL CONTEXT: The statewide WorkHealth program was a priority activity for Echuca Regional Health and Kyabram District Health Services from 2009-2012 however the government ceased the funding for this initiative. Some ad hoc screening still occurs but not on a consistent basis.

Gestational

- Diagnostic thresholds have been well identified with universal testing in all pregnancies [43]
- Lifestyle (diet, exercise) strategies and pharmacotherapy informs treatment [43]
- Research is required in the areas of early diagnosis, long term follow up [43]

LOCAL CONTEXT: Is universal gestational testing occurring? What are the Campaspe stats?

Programs and Services:

LOCAL CONTEXT: GP Chronic disease MBS data for 2014-2015 indicates that;

- 5,367 patients had a GP Management Plan (item 721), and of those patients, 3,852 had a GPMP review (item 732);
- 3,340 patients had a Team Care Arrangement (item 723) utilising 5,678 visits to Allied Health as follows -
  - 3 dietetics service providers providing service to 356 patients accessed this MBS item (10954) under a dietitian for an average of 1.26 visits.
  - 6 physiotherapy providers - 246 patients accessed this MBS item (10960) under a physiotherapist for an average of 2.4 visits.
  - 9 Chiropractors (MBS item 10964), 6 Osteopaths (MBS item 10966) and 5 Psychology (MBS item 10968) providers providing service under the Team Care Arrangements of the MBS to Campaspe patients.
  - Unknown number of Exercise Physiology or Diabetes Education providers or services (10953, 10951 not in data set).
  - 6 Multidisciplinary Case Conferences, organized and coordinated by a General Practitioner (MBS item 739) were accessed.

Current local service access

National Association of Diabetes Centres (as of December 2015)[45]

Goulburn Valley Diabetes Centre (Shepparton, Bendigo Endocrine and Diabetes Centre (St John of God, Bendigo) and other centres in Hume region were accredited as of January 2016. There is currently no Diabetes Centres in the Campaspe area.

LOCAL CONTEXT: Kyabram District Health Service is interested in scoping applicability to be a recognised Diabetes Centre.

Practitioner Support

Currently there is a Campaspe Diabetes Network facilitated by the Campaspe PCP Service Coordination Project Manager and supported by the Early Intervention and Integrated Care Committee to encourage peer support, update of best practice and resource sharing.

In addition, diabetes educators gain professional support from;

- Primary Care Diabetes Society of Australia
- Australasian Diabetes in Pregnancy Society
- Australian Diabetes Educators Association

LIFE! Program Group Sessions

- Kyabram District Health Service
- Echuca Moama Family Medical Practice

- Rochester and Elmore District Health Service
- Goulburn Valley Health Waranga

Diabetes Educators: are employed at a number of services across the Campaspe area including

- Kyabram District Health Service ~
- Rochester and Elmore District Health Service
- Echuca Regional Health
- Rich River Health Group
- Njernda Medical Service
- Echuca Moama Family Medical Practice ~
- Rich River Health Group

~ indicates number of practitioners listed on the Australian Diabetes Educators Association (ADEA) website as a Credentialled Diabetes Educator

Waiting lists/high demand for access to Diabetes Educators occurs at Kyabram District Health Service.

Exercise Physiologists

- Rochester and Elmore District Health Service
- Echuca Moama Family Medical Practice
- N8 Health ~
- Rich River Physiotherapy ~

~ indicates number of practitioners listed on the Exercise & Sports Science Australia (ESSA) website as an Accredited Exercise Physiologist

Dietitians provide therapeutic nutritional advice to consumers in the community to improve and complement their health and wellbeing and are available at the following services;

- Echuca Regional Health ~
- Rich River Health Group
- Njernda Medical Service
- Echuca Moama Family Medical Practice
- Kyabram District Health Service
- Rochester and Elmore District Health Service

~ indicates number of practitioners listed on the Dietitians Association of Australia (DAA) website as an Accredited Practising Dietitian.

Podiatry

HACC funded Podiatrists provide diabetic foot care education and are employed with

- Echuca Regional Health
- Kyabram District Health Service
- Rochester and Elmore District Health Service

LOCAL CONTEXT: Nine podiatrists are providing service to the Campaspe catchment through the Chronic Disease Management MBS item number 10962. 1,352 patients access this item with an average of 2.8 visits (therefore 3,795 visits in the Campaspe catchment for the 2014-2015 year) to a podiatrist per patient.

Optometry

Private optometry services exist in Echuca and Kyabram.

Campaspe PCP supports local service listings for each township area in Campaspe mapped against the LMR Diabetes Pathways to assist with service access.

Specialist Services

Endocrinologists or Diabetologist

Echuca Regional Health has a visiting Endocrinologist who also undertakes telehealth consulting for Kyabram District Health Services.

Cardiology

Echuca Regional Health has a visiting Cardiologist.

Dialysis

Dialysis is available at Echuca Regional Health and Kyabram District Health Service.

Telehealth ability^ to use with Endocrinologists/Specialists at;

- Kyabram District Health Service *
- Rochester and Elmore District Health Services *
- Echuca Regional Health *
- Rich River Health Group *
- Njernda Medical Service *
- Echuca Moama Family Medical Practice ^^
- Rich River Health Group *
- Echuca Medical Practice *
- Kyabram Regional Clinic
- Scope (Kyabram) Medical *
- Rochester Medical *
- Campaspe Medical *

  * demarks "unknown"

  ^ indicates number of practitioners listed on the Australian College of Rural and Remote Medical Telehealth Provider Directory [35]

Peer Support Programs:

Neighbouring regional programs for peer support occur

- Goulburn Valley Type 1 Support Group
- Bendigo type 1 support
- Bendigo Diabetes Support Group (Bendigo Community Health Services)

- Cohuna Diabetes Support Group
- Shepparton Diabetes Support Group[38]

WORKSHOP DISCUSSION: What gaps in service availability can and should be addressed?

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