

5 Special population groups

The specific management problems of pregnant women who develop gestational diabetes or have pre-existing diabetes, and of young people with Type 1 diabetes, are discussed in this chapter. The special needs of populations such as Indigenous Australians, rural and remote area residents, people from culturally and linguistically diverse backgrounds and older Australians are also considered. Key national and jurisdictional activity to address the needs of these special groups is discussed. Again, it should be noted that this is neither a systematic review nor a comprehensive record of initiatives in diabetes. It is a summary that gives an indication of some of the key initiatives being undertaken across the nation.

5.1 Gestational diabetes and diabetes in pregnancy

Diabetes is a high-risk state for both mother and unborn child, and gestational diabetes increases the risk of the woman developing diabetes following pregnancy.

There are three major reasons for focusing on gestational diabetes.

- *The effects of gestational diabetes on birthing interventions and perinatal morbidity and mortality.* Studies have shown an association between gestational diabetes and increased perinatal morbidity and mortality (eg Beischer et al 1996). However, it is unclear whether this association is confounded by other variables (eg age, obesity, poor past obstetric history, ethnicity). In addition, many studies have reported that women who are labelled as having gestational diabetes have higher birthing intervention rates, although the situation in Australia is unclear.
- *The effects of gestational diabetes on childhood development.* Children from a pregnancy complicated by gestational diabetes have an increased risk of obesity and the early development of impaired glucose tolerance and Type 2 diabetes (Silverman et al 1995; Plagemann et al 1997).
- *The effects of gestational diabetes on future maternal risk of developing Type 2 diabetes.* There is a 6–10 fold increase in the risk of developing diabetes in the two decades following the index pregnancy (Oats 1997).

High glucose levels in pregnant women with established Type 1 diabetes are associated with increased risk of miscarriage and congenital malformations (Hanson et al 1990), while timely institution of intensive therapy can reduce this risk (DCCT Research Group 1996b). Pre-pregnancy counselling to encourage improved diabetes control is therefore a way of reducing the risk of poor pregnancy outcomes.

Current activity

Guidelines

In 1998, the Australasian Diabetes in Pregnancy Society published guidelines for the management of diabetes during pregnancy, screening for gestational diabetes and the follow-up of women who have had a gestational diabetes pregnancy (Hoffman et al 1998). Most jurisdictions intend to adopt the guidelines and closely monitor outcomes.

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The RACGP has provided guidelines to GPs which include the management of women with gestational diabetes, as well as related issues such as contraception and hormone replacement therapy (RACGP 1998c).

It should be noted that in New South Wales, the Expert Working Group for Diabetes could not reach consensus on guidelines for women with gestational diabetes.

Service collaboration

Collaborative action on the services provided to pregnant women who have diabetes and follow-up services for women who have had gestational diabetes is being considered in the State-wide diabetes planning exercises in progress in all jurisdictions. The introduction in November 1998 of a new Medicare item for gestational diabetes should facilitate this process.

Coordinated care occurs within major tertiary hospitals and shared-care antenatal care arrangements are commonplace. The Mercy Hospital in Victoria is conducting its own follow-up study program for women who have had gestational diabetes. However, there is no systematic collaboration with GPs for the follow-up of women who have had gestational diabetes.

The lack of a systematic approach to follow-up reflects disagreement within and across jurisdictions on cost-effective models (eg method, frequency of screening).

Client and provider focus

Key issues across all jurisdictions in promoting a client focus include:

- pre-pregnancy counselling for women who have diabetes — across jurisdictions, only about a third of women with diabetes attend pre-pregnancy counselling;
- education on optimal management of diabetes during pregnancy — lack of access to dietitians and diabetes educators is a barrier;
- the pivotal role of bilingual GPs in caring for women with limited English; and
- education on increased risk of developing Type 2 diabetes following gestational diabetes. This information is not systematically provided across jurisdictions. Some hospitals have systems in place to remind women about their increased risk but there are no links with GPs to determine the effectiveness of these strategies.

Little systematic education and training of GPs occurs on the management and follow-up of women who have had a gestational diabetes pregnancy. Automated reminders to women who have gestational diabetes may assist GPs in screening this high-risk population.

Information systems

There is support for agreement on recall mechanisms for women who have had gestational diabetes. Several jurisdictions have considered and decided against linking recall to the Cervical Cancer Registry. The role of pathology laboratories in recall systems needs to be explored.

Gestational diabetes and diabetes in pregnancy

The need for improved information on the incidence and prevalence of gestational diabetes is being considered in many jurisdictions. Currently, databases exist in the Australian Capital Territory (50 per cent capture since 1991), at the Mater Hospital in Brisbane since 1994, in New South Wales (Wollongong) and in Victoria (Mercy Hospital, 1971–1996).

Research and development

The area of gestational diabetes requires research. Of particular importance is the area of mild hyperglycaemia in pregnancy and associated health outcomes for the mother and baby. This may have significant potential to reduce unnecessary maternal and neonatal morbidity.

A number of specific research projects are of relevance to this area, including:

- the Hyperglycaemia and Adverse Perinatal Outcome Study, which aims to examine the relationship between glucose tolerance during pregnancy and maternal and perinatal outcomes;
- the Victorian gestational diabetes study, which uses a combination of information provided to the Perinatal Data Collection by midwives and the Victorian Inpatient Minimum Dataset to determine the incidence of gestational diabetes in Victoria, women at risk of gestational diabetes and adverse maternal and child outcomes;
- the Royal Women's Hospital Gestational Diabetes Study, which aims to compare the effects of 'normal obstetric' versus 'conventional gestational diabetes' management in approximately 300 women with newly diagnosed gestational diabetes on maternal and foetal outcomes; and
- the Australian Carbohydrate Intolerance in Pregnancy Study, which will study the effects on the mother and baby of active management and treatment of glucose intolerance during pregnancy.

Key points — Gestational diabetes and diabetes in pregnancy

- Review of the services provided to pregnant women who have diabetes and follow-up services for women who have gestational diabetes is being considered in the State-wide diabetes planning exercises in progress in all jurisdictions.
- While coordinated care of women who have gestational diabetes occurs within hospitals, there is no systematic collaboration with GPs for the follow-up of women or education about their increased risk.
- There is support for jurisdictional agreement on recall mechanisms for women who have had gestational diabetes. Automated reminders to women who have gestational diabetes may assist GPs in screening this high-risk population.
- Pre-pregnancy counselling for women with diabetes, to encourage improved glucose control during pregnancy, is likely to reduce the risk of adverse outcomes for both mother and baby.

5.2 Type 1 diabetes in young people

Optimising diabetes control among children and adolescents with diabetes may be more difficult than among adults, as children and adolescents have a number of additional challenges including erratic eating patterns, the tendency to get four to six viral illnesses each year, and hormonal changes associated with growth spurts and pubertal development. The psychological effects of diabetes and the need for constant monitoring may be difficult for children and adolescents. Early results of an assessment of needs by the Juvenile Diabetes Foundation Australia highlight the lack of psychological support and counselling for children with diabetes and their families.

The difficulty in achieving glycaemic control is shown by the rate of severe hypoglycaemia in children and adolescents which is almost twice that of adults and young children (Colagiuri et al 1998). Although the DCCT data did not include children under 13 years, the findings allude to the importance of good control and the regular assessment of HbA_{1c} to delay the onset of complications and enhance the quality of life for children and adolescents with Type 1 diabetes.

Continuing research into identification of those likely to develop Type 1 diabetes is needed, along with initiatives to improve the quality of and access to clinical services.

Current activity

The Commonwealth has funded a national needs assessment for children and adolescents with Type 1 diabetes. The Juvenile Diabetes Foundation Australia is leading this project and aims to identify gaps in current service delivery, unmet needs (beyond clinical care) and strategies to improve diabetes care for young people.

Guidelines

Guidelines are available for the management of children and adolescents with Type 1 diabetes, developed by the Australasian Paediatric Endocrine Group (Silink 1996). Hospital-based protocols consistent with these guidelines have been developed in most States and Territories. New South Wales has produced guidelines on management of paediatric diabetes (NSW Health Department 1996g).

Service collaboration

A specialist team approach to Type 1 diabetes is taken in the urban areas of all jurisdictions except the Northern Territory. In rural and remote areas (and especially in the Northern Territory), GPs may be the main carers of children and adolescent with Type 1 diabetes. Insufficient staff resources limit efficient role delineation of the various allied health providers in both urban and rural and remote areas.

An innovative model of service delivery in metropolitan areas is in place in South Australia, where paediatric nurses employed by the Royal District Nursing Society visit children with Type 1 diabetes in their homes and at school. These one-on-one visits have been associated with significantly reduced hospital admissions (Dr J Couper, personal communication). This model should be examined for wider

application. In Tasmania, Diabetes Nurse educators regularly visit schools and homes to educate staff and carers in the management of children with Type 1 diabetes. This is in addition to the visits that occur at the time of diagnosis.

Transition from paediatric to adult care is an important issue. The lack of clear transition paths from paediatric hospitals to adult hospitals results in some young people not having blood glucose control monitored and not being screened for complications.

Client focus

Currently, diabetes is not included as a manifest disabling condition eligible for the Childhood Disability Allowance. The current status of the Childhood Disability Allowance in relation to children with Type 1 diabetes is being reviewed, as is the possibility of automatic access of children with Type 1 diabetes to health care cards. There is strong stakeholder support for Type 1 diabetes to be included as a manifest disabling condition for children under six years of age and for all children with Type 1 diabetes under the age of 16 years to have access to a health care card. This is essential, as young people with diabetes quickly learn to associate 'cost' with services and supplies and may use this imperative to reduce their self testing and management.

At the State/Territory level, there is a strong focus on providing education to patients and their families on the management of the disease and its impact on lifestyle, in many cases in partnership with Diabetes Australia and the Juvenile Diabetes Foundation Australia (eg conducting children's camps). However, limited staff resources limit access to this education, a significant proportion of which is currently provided out of hours on a voluntary basis by committed health professionals.

Provider focus

Tertiary centres have varying levels of access to professionals trained in behavioural change techniques. This is critical for managing Type 1 diabetes in children, as the disease has an impact on the whole family.

Generally, outreach education for providers is conducted across Australia, but less so in rural and remote areas. However, New South Wales and South Australia have very strong rural and remote outreach services. Training for GPs (who may manage children) is done on a voluntary basis. In some cases this is only possible with the support of pharmaceutical companies.

Undergraduate training of medical students in the management of Type 1 diabetes is seen as important. Continuing education could occur through the Postgraduate Family Medicine Program.

Multimedia is being used in Queensland for decision support and networking. State-wide teleconferences of allied health professionals and paediatricians involve discussion of the management of children with Type 1 diabetes. Telenetworking through the tele-paediatric network is sponsored by Queensland Health.

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Information and research

Australasian Paediatric Endocrine Group Registers are either established or being established in most States. The Tasmanian Diabetes Register for people who are treated with insulin includes young people with Type 1 diabetes. Data for the Northern Territory and the Australian Capital Territory are included in the Queensland and New South Wales Registers.

These registers cover the age group 0–15 years, and vary in the type of information collected. Data on complications are collected by major tertiary hospitals in most States. A significant amount of data are paper based, resulting in difficulties conducting outcomes analyses.

The current research focus includes:

- the prevention and cure of Type 1 diabetes;
- complications prevention and reduction;
- reducing the impact of diabetes on quality of life;
- developing non-invasive blood glucose monitoring technology;
- developing non-invasive insulin delivery for Type 1 diabetes; and
- improving monitoring to detect and prevent severe hypoglycaemia.

Key points — Type 1 diabetes in young people

- The Commonwealth national needs assessment for children and adolescents with Type 1 diabetes, being led by the Juvenile Diabetes Foundation Australia, aims to identify gaps in current service delivery and strategies to improve diabetes care for young people.
- A specialist team approach to Type 1 diabetes is taken in the urban areas of most jurisdictions. In rural and remote areas, GPs may be the main carers of children and adolescent with Type 1 diabetes, and need skills in detection and management of diabetes in this group.
- Innovative models of service delivery in some States have reduced hospital admissions and improved management. Rural and remote outreach/shared care services, including complications screening programs, need adequate funding and infrastructure to be effective.
- The lack of clear transition paths from paediatric hospitals to adult hospitals results in some young people not having adequate management and screening for complications.
- Limited staff resources restrict access to adequate education and support for young people and their families.

5.3 Indigenous populations

A major barrier to improving diabetes care for Indigenous populations is limited availability and access to necessary and culturally appropriate health care. There are a number of inter-related factors that contribute to persistent poor health among Indigenous people. The relationship between these factors is complex and current evidence does not allow an assessment of the relative importance of each factor. These include:

- socio-economic factors;
- social and cultural factors;
- poor access to good quality food;
- inadequate health care due to cultural and location factors, poor linkages, lack of population health focus, workforce issues;
- environmental factors such as housing; and
- specific risk factors such as poor nutrition.

Issues specific to diabetes prevention and management among Indigenous people include:

- available information on community prevalence and incidence of diabetes, its complications and risk factors is fragmented;
- there is high staff turnover and low skill levels among diabetes staff;
- there is a shortage of specialist staff in rural and remote areas, and problems with Patient Assistance Travel Schemes;
- not enough Aboriginal Health Workers are being trained in diabetes education;
- there is no agreement on role delineation and referral criteria, particularly in regard to the services that Aboriginal Health Workers can provide;
- there is a lack of available equipment to monitor the quality of diabetes care and the development of diabetes-related complications (eg fundus cameras, DCA 2000 analysers);
- there is limited access to accessible dialysis and renal transplantation for Indigenous Australians (particularly in rural and remote areas); and
- stand-alone health promotion is not linked with NACCHO primary health care service delivery.

Current activity

Guidelines

Two systematic reviews were undertaken by the Commonwealth Department of Health and Family Services in 1997 on the prevention and management of Type 2 diabetes in Aboriginal and Torres Strait Islander populations (Kimberley Aboriginal Medical Services Council 1997 [referred to as the OATSIH guidelines]). A set of recommendations for clinical care guidelines for the prevention and management of Type 2 diabetes has been extracted from the reviews and widely

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disseminated (Kimberley Aboriginal Medical Services Council 1998). Programs to facilitate the uptake of these recommendations through the development of local diabetes plans are currently in progress through the ACCOs.

Queensland Health is developing a Chronic Disease Strategy for Indigenous people, based on the recommendations of the systematic reviews. Queensland is also implementing components of the Strategic Plan for Diabetes in the Torres Strait.

In the Northern Territory, as part of the Coordinated Care Trial, evidence-based guidelines are being developed on the management of chronic diseases in remote Aboriginal communities. The guidelines will be implemented in all Top End Aboriginal communities. Key strategies include linking guidelines to a computerised patient record system and/or paper recall systems, training bush staff in the use of guidelines, supporting staff to improve local programs for screening and case management, and developing guidelines for patients on the care that they expect to be provided by health staff.

Service collaboration

Systematic and coordinated primary health care is essential to improve the health of Indigenous Australians.

National activity

A National Indigenous Nutrition Strategy is being developed as a component of the National Public Health Nutrition Strategy.

The Commonwealth Government has developed a strategic framework for improving Indigenous health outcomes through the support of primary health care services. As many Indigenous people seek health care from community-controlled organisations, the Commonwealth is seeking to coordinate national initiatives with NACCHO (as shown by the recent funding of a national diabetes/nutrition coordinator).

Indigenous people with diabetes are highly likely to have other coexisting conditions. Service providers require incentives to provide longer consultations, such as through the Practice Incentives Program. The South Australian Coordinated Care Trial's tiered payment system for managing complex cases should be examined in relation to Indigenous services.

State/Territory activity

At the State/Territory level, progress is varied.

- In New South Wales, there is a partnership approach where the rights of Indigenous people to self determination are acknowledged. The approach will allow Aboriginal people to determine what diabetes services are required and how those services should be configured and delivered.
- In Victoria, the Koori Diabetes Services and the International Diabetes Institute have developed a resource for health workers working with Koori people with diabetes, *Diabetes — it's in Your Hands*, which includes a poster, video, leaflets and the book, *Health Worker Manual* (Vickery et al 1998). This will be provided to the health workers who complete the 'train the trainer' program conducted by the International Diabetes Institute and Koori Diabetes Services. The community information leaflet is provided to the individual with diabetes and contains information about diabetes to empower them to manage their condition. At Rumbalara Aboriginal Coop Ltd in Mooroopna, a diabetes screening program linked with eye health is coordinated by trained Aboriginal health workers.

- In Queensland, the Strategic Plan for Diabetes in Torres Strait Islanders is being implemented and there is a Well Person's Check for Indigenous people in far north Queensland. Local collaborative planning teams are being developed which involve Aboriginal service providers. A collaborative approach to the acute treatment of Indigenous people with diabetes is being developed with the Queensland Ambulance Service.
- In South Australia and Tasmania, Indigenous diabetes services are in the planning stages. The inclusion of Indigenous-specific performance indicators in hospital funding agreements in South Australia should facilitate greater collaboration between hospital and Indigenous-specific services. Similarly, the framework agreements on Aboriginal Health and collaborative planning processes in Tasmania should facilitate effective planning and service delivery.
- The Perth Aboriginal Medical Service provides a comprehensive diabetes clinic using a multidisciplinary team from nearby mainstream services. The Kimberley Aboriginal Medical Services Council in Western Australia has undertaken a systematic review of the primary care management of important Aboriginal health problems including diabetes (Couzos & Murray, in press). This also formed the basis for a clinic computerised recall program. The diabetes chapter was further developed in the OATSIH Systematic Review (Kimberley Aboriginal Medical Services Council 1997), together with recommendations for local guideline development (Kimberley Aboriginal Medical Services Council 1998), and has been disseminated nationally to ACCOs.

Client focus

There are two important aspects to client focus for Indigenous people — access to services and access to information about diabetes and its evidence-based management.

An example of the importance of access to services is the availability and appropriateness of Patient Assisted Transport Schemes for Indigenous people. These schemes provide an important mechanism to overcome problems of distance for Indigenous people seeking specialist services such as dialysis, and should assist in maintaining their links with their families who remain in remote Aboriginal communities. These issues are critical to the acceptance and outcome of Indigenous people receiving care for diseases such as end-stage renal disease (Couzos & Murray, in press).

At the State and Territory level, a focus on increasing the awareness of diabetes and its management is undertaken in a project-based manner (eg the community programs undertaken by the Koori Diabetes Service in Victoria).

The ACCO involved in the New South Wales Integrated Care Trial has developed an innovative client focus strategy of a board game which tests diabetes management knowledge. It has also established a food cooperative that provides cheap fruit and vegetables for clients which can be picked up from the diabetes clinic. The approach taken in the Northern Territory as a part of the Coordinated Care Trial and the Chronic Disease Strategy is to focus on risk factors. This is based on qualitative research conducted with Aboriginal communities.

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The following projects address these aspects of client focus:

- The Townsville Aboriginal and Islander Community Health Service has a diabetes support group facilitated by the Aboriginal health worker who provides the service for a diabetes clinic once per week.
- Durri Aboriginal Medical Service, Kempsey, New South Wales, is one of the few ACCOs that have an accredited Indigenous diabetes educator. There are various integrated health promotion activities, and education is provided to local schools and TAFE Colleges on healthy lifestyle and specific diabetes issues.
- In South Australia, work is underway with Tandanya (the National Aboriginal Cultural Institute) to develop a culturally specific communication tool to raise awareness of diabetes in Indigenous communities.
- Kimberley Aboriginal Medical Services Council, Western Australia, educates those with diabetes and families on the management of diabetes, the health checks required and healthy lifestyle through a play 'Change of Heart', which explores diabetes in Aboriginal people, attitudes, fears and complications.

Provider focus

The role of Aboriginal health workers, their training and their payment is a key issue. All jurisdictions have limited access to Aboriginal health workers trained in diabetes education. The Commonwealth is investigating how to increase opportunities for Aboriginal health worker training in diabetes prevention and management. There is a need to back fill positions to allow Aboriginal health workers to access training.

Aboriginal health workers must have ready access to the advice of allied health carers (podiatry, dietary advice, physiotherapy), as well as physicians and surgeons and links with hospitals through Aboriginal liaison officers. There is some evidence of decision-support systems in jurisdictions, with diabetologists visiting ACCOs to provide clinical support and Aboriginal health worker training. However, these systems are not occurring in all ACCOs. The model used in New South Wales should be expanded.

The National Divisions Diabetes Program includes an optional module on working with Indigenous populations. The module draws on existing work within the field, and provides a starting point for other Divisions working with their local ACCOs.

A CD-ROM has been developed by the Kimberley Aboriginal Medical Services Council School of Health Studies for Aboriginal health worker basic training, which includes diabetes care.

Information systems

There is a need for improved identification of Indigenous people with diabetes across health settings, particularly in hospitals.

ACCOs should be provided with and/or retain skills in data analysis as well as in data collection. If data can be analysed at the local level, they are more likely to be used in providing feedback to the community, patients and service providers.

The establishment of local recall systems is recommended by the systematic reviews of diabetes management and will be supported at the Commonwealth level. Currently, patient recall does not occur systematically across jurisdictions.

The ACCOs in Tennant Creek, Western Sydney, Broome, Kununurra, Halls Creek, Wilcannia, Gibb River, Townsville and Oenpelli have computerised information management and preventive care delivery. Primary health care patient management incorporates opportunistic recall of preventive interventions at every clinic encounter, through a customised computerised recall program, in addition to periodic health examinations. In this way, the patient receives the care required for their presenting complaint as well as the care required to manage their diabetes. The process is acceptable to staff and patients, sustainable and low in cost.

Research and development

A strategic research agenda for Indigenous health is being progressed through the NHMRC in conjunction with OATSIH. Given the high prevalence rates of diabetes and its complications among Indigenous people, there is a clear need to prioritise research on effective preventive strategies for Indigenous people and diabetes is one of the first issues being considered through this systematic process.

Key points — Indigenous peoples

- Clinical management guidelines for the prevention and management of Type 2 diabetes among Indigenous Australians have been developed. Programs to facilitate the uptake of its recommendations through the development of local diabetes plans are currently in progress through the ACCOs.
- Systematic and coordinated primary health care is essential to improve the health of Indigenous Australians. This is being progressed at national and State/Territory level.
- Two important issues are access to services and access to information about diabetes and its evidence-based management. The availability and appropriateness of Patient Assisted Transport Schemes for Indigenous people should be considered. At the State and Territory level, a focus on increasing the awareness of diabetes and its management is undertaken in a project-based manner.
- A key issue, especially in rural and remote areas, is the role of Aboriginal health workers, their training and their payment. At present, there is limited access to diabetes education for Aboriginal health workers.
- The establishment of local recall systems is recommended by systematic reviews of diabetes management and will be supported at the Commonwealth level. Currently, patient recall does not occur systematically across jurisdictions.

5.4 Rural and remote area populations

The disadvantages facing people living in these areas in gaining access to adequate and appropriate health care have been largely identified (Strong et al 1998b) and include:

- distance;
- shortage of health professionals and inadequate training;
- poor economic infrastructure;
- continuing logistical and communication problems;
- fewer or less comprehensive hospital services and other local health services that are inadequate to meet the needs of the population;
- difficulties with intersectoral coordination;
- financial pressures and decreasing services;
- unemployment; and
- lifestyle and cultural attitudes towards health (Fitzpatrick & Manderson 1995).

Retention rates of health service providers are problematic with major barriers including lack of support, skills, educational opportunities and resources and work-related stress.

Current activity

Service collaboration

Difficulties gaining access to allied health services were noted by most jurisdictions.

The concept of the local health team coordinating the care of people with diabetes is important to rural and remote practitioners. In redesigning diabetes services, referral systems must ensure that local health teams are informed of results and management plans. Community involvement in planning coordinated diabetes services is also important, as local issues and local capacity vary widely across rural and remote areas.

The South Australian Department of Human Services has developed minimum service standards for rural and remote areas. These standards resulted from a partnership approach to diabetes service provision and involved community health practitioners including ACCOs, hospital-based clinicians and Divisions of General Practice. They were developed through a collaborative process involving agreement on the model of care in terms of services required, roles of service providers and referral criteria and calculation of minimum staffing levels required to service the estimated number of people with diabetes in the local area. The standards have been funded in four rural/remote health regions, with funding decisions yet to be made in the remaining three health regions.

The South Australian Department of Human Services has seed funded diabetes prevention and health promotion projects in two rural regions. The projects are a collaboration between the community, general practitioners and multidisciplinary health service providers and focus on prevention and early detection, targeting

lifestyle issues such as overweight, physical activity and appropriate nutrition. The South Australian Women's and Children's Hospital also runs a State-wide diabetes paediatric service, sending visiting diabetes specialist medical and nursing staff to rural and remote sites, as well as training metropolitan Royal District Nursing Society staff.

In rural and remote areas of Queensland and Tasmania there is a shortage of GPs to provide primary health care services. Negotiations with the Commonwealth have enabled access by State-funded salaried medical practitioners to Medicare Benefits Scheme funded services, which has achieved equity in terms of availability of GP-type services and enabled revenue retention to enhance acute care services.

The Smithton Diabetes Clinic in north-west Tasmania has been conducted annually since 1992. It is a collaborative approach between a rural General Medical Practice, State Government and Diabetes Australia and involves bringing a comprehensive team of health professionals to Smithton for three days to assess all people with diabetes in the area. The aims of the clinic are to increase awareness and detection of diabetes in the community; improve knowledge of the nature and management of diabetes including self management; improve blood glucose control and prevent or delay complications; and improve quality of life for all people with diabetes, their carers and families.

Future planning of diabetes services should be coordinated with development of the National Rural Health Strategy and the implementation of other initiatives (eg Acting on Australia's Weight). There is strong support for incentive packages to be developed for nurses in rural and remote areas, which include increased leave and access to specialist decision support.

Client focus

Efforts are made across jurisdictions to provide people with diabetes and those at risk in rural and remote areas with information about the disease. However, workforce issues restrict this education in most areas.

The regional networks in South Australia (as discussed in Section 4.2) are a good example of client focus in rural and remote areas.

Provider focus

National activity

The Commonwealth Rural Health Education, Support and Training program supports the implementation of the National Rural Health Strategy and focuses on improving the rates of recruitment and retention of rural and remote health care workers through increased support, education and training opportunities. It also complements the objectives and strategies underpinning the Rural Incentives Program for GPs. University Departments of Rural Health are being established to provide training and support for rural health professionals and those interested in rural practice.

State/Territory activity

Outreach services are provided by all jurisdictions to some rural and remote areas. However, this is not comprehensive and there is a need for greater continuing education opportunities for service providers in rural and remote areas.

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South Australia has provided rural health professionals with comprehensive continuing education through its Diabetes Outreach Service since 1989. The programs include CME, Regional Diabetes Education Series, audio and teleconference education in partnership with the tertiary education sector and other partners.

Diabetes Australia (New South Wales) conducts a teleconference service for service providers in rural and remote areas to assist information sharing.

Telehealth provides opportunities for provider education and is used in most jurisdictions. South Australia has embedded this technology within a systematic approach to provider education, which includes two distance learning courses and tele-tutorials. Telehealth also provides an opportunity for case consultation and management. For example, in New South Wales, the Royal Prince Alfred Hospital Diabetes Footcare Network uses digital camera images which are emailed to the centre for telephone consultation.

Providing incentives for rural and remote GPs to extend consultation times for people with or at risk of diabetes may not be effective, simply because of the number of GPs in these areas and their case loads.

The Specialist Locum Relief Program should be targeted to provide diabetes/endocrinology specialist locums and enable resident specialists to attend professional development courses.

Information systems

Information on the prevalence of diabetes and its risk factors is necessary for effective services to be planned. This information is also a prerequisite to community involvement in diabetes services.

Key points — Rural and remote area populations

- A range of disadvantages face people living in rural and remote areas in accessing adequate and appropriate health care.
- Several States have innovative rural service delivery models which involve visits to rural and remote areas by multidisciplinary health care teams. Future planning of diabetes services should be coordinated with development of the National Rural Health Strategy and the implementation of other national initiatives.
- Continuing education is being provided to health professionals in rural and remote areas through the Commonwealth Rural Health Education, Support and Training program and State/Territory outreach services. Telehealth provides opportunities for provider education and is used in most jurisdictions.

5.5 People from culturally and linguistically diverse backgrounds

People from culturally and linguistically diverse backgrounds experience disadvantages in terms of access to the range of diabetes services available (because of language barriers), access to appropriate education and information for effective self management and access to ongoing community support. It is likely that these groups suffer a high rate of diabetes-related complications because of this inadequate access to health services (McCarty et al 1996). There is a lack of data evaluating the effectiveness of diabetes care for these people.

Current activity

Service collaboration

The collaborative planning approaches in all jurisdictions recognise the need to specifically address populations of culturally and linguistically diverse backgrounds and have multicultural policy representatives on advisory committees or taskforces.

A central issue in providing effective prevention and care services to people from these populations is access to appropriate services. Western Australian data indicate that a significant proportion of immigrant populations attend tertiary-based services or GPs. The move towards collaborative models of care emphasises the role of hospital-based services for the treatment of acute conditions and community-based services for chronic illnesses. Encouraging people from immigrant populations to use community-based services in addition to their GP will be the key to the successful implementation of collaborative models of diabetes prevention and care services. Western Australia is currently conducting a needs assessment to identify appropriate service locations for people from culturally and linguistically diverse backgrounds with diabetes. A number of pilot programs will be conducted on the basis of these results, with the goals of increasing access to quality diabetes services for these people.

There is a growing recognition across jurisdictions that immigrant groups should be considered separately in the identification of health needs and in subsequent service planning. Targeting scarce resources at identified ethnic groups will maximise their effectiveness — ie primary prevention programs for newer, younger migrant groups (those from China, Malaysia, Latin America) and early detection and prevention of complications for older, more established groups (those born in Greece, Italy, India, Poland etc).

In New South Wales, strategies for people from specific backgrounds have been developed as a part of the Diabetes West NSW Health Diabetes Integrated Pilot Project in western Sydney. These strategies focus on improving access to services such as interpreter services. In Western Australia, the inner city integrated care pilot project is also seeking to address the unique diabetic needs of people from certain backgrounds.

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Client focus

Awareness raising

Providing information to people from culturally and linguistically diverse backgrounds on diabetes, its prevention and management is essential to changing behaviours and achieving health gain. This is an area that needs urgent attention. The expense of providing specific tailored resources for the large number of different cultural groups in Australia is an obvious barrier. However, jurisdictional collaboration on this issue is occurring slowly and proving to be effective.

As with the prevention and management of diabetes among Indigenous populations, awareness raising strategies are generally conducted in an ad hoc, project-based manner (eg Western Australian swimming groups for Muslim women, establishment in Queensland of links with the ethnic food industry). The lack of sustainable funding for these projects is a barrier and their effectiveness is also hampered by the lack of attention to macro-environmental issues (eg access to safe exercise facilities, access to healthy food choices).

Access to services

In South Australia, \$1.5 million has been provided for the establishment of mechanisms for effective communication between service providers and people from culturally and linguistically diverse backgrounds. However, these funds are only available to people seeking services in the public sector, and the majority of people from such backgrounds seek advice from GPs. There is a need to increase GPs' access to and knowledge of effective use of interpreter services.

Interpreter services also facilitate the use of patient-centred techniques such as goal setting or motivational interviewing which depend on patient participation. An innovative approach to this issue is the use of interpreter services through video-conferencing technology. This approach should be examined for wider applicability. Video-conferencing is of particular benefit to immigrants in rural and remote areas who have no access to face-to-face interpreting assistance.

State-based Diabetes Australia organisations are important service providers for people with diabetes from culturally and linguistically diverse backgrounds. These organisations provide education to these people through support groups in most jurisdictions.

Provider focus

The *National Diabetes Strategy and Implementation Plan* report recommendation that health service providers receive cross-cultural training in undergraduate courses (Colagiuri et al 1998) was supported across jurisdictions but with this recommendation expanded to include continued training. One option for continuing education is the inclusion of cross-cultural training as a core component of the Family Medicine program conducted through the RACGP.

Undergraduate cross-cultural training will provide service providers with an understanding of the needs of people from different backgrounds. The continuing education will remind service providers of these needs and how to best meet them (eg through the appropriate use of interpreter services). Innovative approaches being used to increase service provider's awareness of cross-cultural issues include the establishment of community-based forums (eg New South Wales Integrated Care Trial) and the production of resource guides for GPs.

People from culturally and linguistically diverse backgrounds

Cross-cultural training should also be provided to organisations (eg hospitals, community health centres) in addition to actual service providers. Organisational commitment will support providers to implement service changes to ensure that needs are met.

While there was broad agreement that training health service providers in cross-cultural issues is vital to addressing diabetes among populations of culturally and linguistically diverse backgrounds, to be effective this training must be accompanied by increased access to interpreter services, as discussed above.

Information systems and research and development

Service collaboration activities focus on providing people from culturally and linguistically diverse backgrounds with increased access to quality health services. Monitoring this access is an important information requirement.

Computerised recall systems being established should consider the needs of people who have culturally and linguistically diverse backgrounds (and who may have low levels of English literacy).

There was support across jurisdictions for reliable and valid diabetes incidence and prevalence data among people from culturally and linguistically diverse backgrounds. This information is essential for effective planning of services to prevent diabetes and associated complications among such populations. There was also strong support for national surveys to include questions on country of birth, first language and need for interpreter assistance. South Australia is progressing this issue through its Diabetes Clearing House while New South Wales is collecting qualitative and quantitative information through focus groups and State-wide surveys.

The Commonwealth Government recently funded a three-year research project on the health needs of Chinese Australians which includes the prevention and management of diabetes (Chinese Australian Better Health Research Project).

There is a dearth of information on effective prevention and treatment strategies for the various cultural groups in Australia. Even when projects have been conducted, in many cases there has been no evaluation. A key research and development issue is for enhanced investment in research on effective diabetes prevention and care strategies for populations at risk (to prevent diabetes onset) and for populations with high health status (to maintain this status). Funding criteria for this research must include evaluation and strategies for the dissemination of results.

Key points — People from culturally and linguistically diverse backgrounds

- It is likely that people of culturally and linguistically diverse backgrounds suffer a high rate of diabetes-related complications because of inadequate access to health services (caused by language barriers) and lack of access to appropriate education and information for effective self management.
- The collaborative planning approaches in all jurisdictions recognise the need to specifically address populations of culturally and linguistically diverse backgrounds and have multicultural policy representatives on advisory committees or taskforces.

continued

Special population groups

Key points — People from culturally and linguistically diverse backgrounds (continued)

- There is a growing recognition across jurisdictions that immigrant groups should be considered separately in the identification of health needs and in subsequent service planning.
- Providing culturally appropriate information on diabetes, its prevention and management is essential to changing behaviours and achieving health gain, and is an area which needs urgent attention.
- There is a need to increase GPs' access to and knowledge of effective use of interpreter services. The use of interpreter services through video-conferencing technology should be examined for wider applicability.
- Innovative approaches being used to increase service provider's awareness of cross-cultural issues include the establishment of community-based forums and the production of resource guides for GPs.

5.6 Older Australians

Older people with diabetes may be less able to recognise and react to the warning symptoms of hypoglycaemia. If hyperglycaemia is left untreated, the risk of acute and longer term diabetes-related complications is increased. As yet there are no data from a randomised trial in older people to establish the optimal blood glucose level which maximally reduces risk of complications while minimising the risks of therapy.

Issues specific to older people, such as multiple pathology, polypharmacy, social isolation and depressed cognitive function complicate the provision of effective preventive and management services. The provision of care for people with diabetes in residential or nursing homes is often inadequate and staff may not receive the necessary training.

Patient participation in health care is difficult for older people because they are more likely to have disabilities such as impaired cognition, poor vision and hearing, and reduced mobility. Dietary changes are difficult to achieve because of the condition of mouth and teeth, transport difficulties in accessing food outlets, cost of healthy foods and lack of interest in cooking. Physical activity may be difficult due to other medical problems (eg arthritis).

Current activity

The care of older people who have diabetes involves a large range of health professionals due to the increased number of comorbidities. GPs are central to the provision of effective prevention and care services for people with diabetes and to coordinating the care provided by the various health professionals. Because of increased comorbidities, longer consultations are required for older people and incentives should be provided to encourage this change.

Older people who have chronic illnesses have better health outcomes (and higher satisfaction with the health system) if they have access to multidisciplinary clinics, well coordinated care between hospitals and local services and access to allied health services (Australian Pensioners' and Superannuants Foundation 1991).

In both nursing homes and hostels there is usually a mix of nursing and non-nursing staff, depending on the care needs of the residents. Each resident has a care plan that the Residential Care Standards require to be reviewed on a regular basis by the care team. This team includes the staff of the facility, a GP and other relevant health workers. Training of staff in providing diabetes prevention and care services is required. Alternatively, specialist assistance to staff could be provided (eg diabetes educators).

Key points — Older Australians

- Issues specific to older people, such as multiple diseases, polypharmacy, social isolation and depressed cognitive function complicate the provision of effective preventive and management services.
- GPs are central to the provision of effective prevention and care services for people with diabetes and to coordinating the care provided by the various health professionals. Because of increased comorbidities, longer consultations are required for older people.
- Nursing home staff require training in diabetes prevention and care or access to specialist assistance.

