

The challenges of managing diabetes in hard-to-reach groups

Alia Gilani and John Furler

We are in the midst of a global diabetes epidemic that is multi-faceted in its impact. This includes effects on population health, the economy and healthcare services. The management of diabetes is becoming increasingly challenging. The numbers of people to treat is rising and there are many pressures in primary care to achieve targets, not least because annual reviews are expected to be delivered in the same format for all. Population trends indicate that diversity is increasing, and this may mean that there will be widening gaps in the health needs for different groups, leading to further challenges for healthcare providers. Meeting the challenges of managing diabetes in hard-to-reach groups is a significant part of this, and this article explores a range of groups, highlighting the difficulties in engagement and the different needs that exist in each.

Hard-to-reach groups can be defined as those who are underserved, service resistant or “slipping through the net” (Doherty et al, 2004). Marginalised groups tend to experience more significant inequalities than the general population, and it is thus of great importance for the healthcare system and Government to have strategies to tackle this. Often, such groups receive the least healthcare. This was eloquently described by Julian Tudor Hart as the inverse care law: “The availability of good medical care tends to vary inversely with the need for the population served.” Targeting inequalities may require the adoption of novel ways of working and thinking “outside the box”.

Engagement with hard-to-reach groups is essential, as one of the determinants of population health is access to healthcare (Levesque et al, 2013). Examples of hard-to-reach groups include Aboriginal and Torres Strait Islander populations, people from culturally and linguistically diverse (CALD) backgrounds (including refugees), those with mental illness, and people from socio-economically disadvantaged backgrounds

(including those experiencing homelessness). It is difficult to get an accurate estimation of the number of individuals who are in these hard-to-reach groups, not least because of reduced engagement with services and incomplete data collection.

Diabetes in Aboriginal and Torres Strait Islander people

The Australian Institute of Health and Welfare (AIHW) provides a comprehensive summary of the current prevalence of diabetes, its risk factors and associated conditions in the Aboriginal and Torres Strait Islander population (AIHW, 2015). Aboriginal and Torres Strait Islander people experience a much higher burden of cardiovascular disease (CVD), diabetes and chronic kidney disease (CKD) than the non-Indigenous population.

- Indigenous people are 3.5 times as likely as non-Indigenous adults to have diabetes (18% compared with 5%); the rate was 4 times as high in Indigenous adults aged 35–44 years (11% compared with 3%).



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Learning objectives

After reading this article, the participant should be able to:

1. Give examples of a range of hard-to-reach groups, in which diabetes care may be sub-optimal.
2. Describe barriers to healthcare faced by different hard-to-reach groups.
3. Explain potential links between the inequalities faced and diabetes outcomes.

Key words

- Hard-to-reach groups
- Inequalities
- Quality of care

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Page points

1. From 2011–2013, hospitalisation and death rates were greater in the Indigenous population, particularly among those under the age of 55, than the non-Indigenous population.
2. Increasing geographical remoteness also increases the prevalence of disease.
3. Refugees are a particularly vulnerable group, and over 20 000 refugees arrive in Australia each year.

- Indigenous people are twice as likely as non-Indigenous adults to have signs of CKD (22% compared with 10%); the rate was 4 times as high in Indigenous adults aged 45–54 years (25% compared with 6%).
- Indigenous people are 2.6 times as likely as non-Indigenous adults to smoke daily (42% compared with 16%).
- Indigenous people are 1.2 times as likely as non-Indigenous adults to be overweight or obese (72% compared with 63%).
- Indigenous people are 1.2 times as likely as non-Indigenous adults to have high blood pressure (25% compared with 21%).

In the same report, hospitalisation and death rates were also found to be greater in the Indigenous population, particularly among those under the age of 55, than the non-Indigenous population. Indigenous people were 4 times as likely as non-Indigenous people to have diabetes and 3 times as likely to have CKD as underlying or associated causes of death. The death rates for both conditions were 10 times higher for Indigenous people compared with non-Indigenous people between the ages of 55 and 64 years.

The prevalence of disease also rises with increasing remoteness. In remote areas, Indigenous people are 6 times as likely to have diabetes – and 5 times as likely to have CKD – as non-Indigenous people. CVD was 1.4 times as common in Indigenous people living in remote areas compared with Indigenous people living in non-remote areas. Diabetes and CKD were twice as common in this comparison.

Barriers to Aboriginal Australians accessing mainstream general practice include their history of dispossession and ongoing experience of racism and discrimination. Acknowledging this is important when building respect and trust. Addressing issues such as transport, offering flexibility in clinic arrangements and appointments, and providing outreach and collaborative styles of consulting are important to improving access to care for Aboriginal and Torres Strait Islander people. Cultural respect is a key element of quality care (Liaw et al, 2015). The Royal Australian

College of General Practitioners' National Faculty website contains excellent resources to help GPs provide accessible and culturally appropriate high-quality care to people of Aboriginal and Torres Strait Islander background (www.racgp.org.au/yourracgp/faculties/aboriginal [accessed 23.02.16]).

CALD communities in Australia

Hanif and Karamat (2009) describe culture as “a complex interaction of multitudes of factors that give people an ethnic belonging” that “has an impact on their lifestyle and predisposition to chronic disease.” They describe factors that are influenced by culture and that in turn impact on the management of diabetes. Culture can have a significant influence on chronic disease management, including through perception of disease, reduced access to services, lifestyle choices, concordance with medication, and language barrier and thus communication with healthcare professionals.

Using national survey data from 1999–2000, the AIHW published a report concluding the prevalence of diabetes was higher in Australian men who were born in the Middle East and North Africa, and South-East and Southern Asia than in their Australian-born counterparts (AIHW, 2003). Men born in the Middle East and North Africa were 3.6 times more likely to self-report diabetes, while those born in South-East and Southern Asia were 1.9 times more likely. Men born in UK and Ireland and North-West Europe also had higher rates of self-reported diabetes, although not as pronounced. Women born overseas showed a similar pattern in the prevalence of diabetes, apart from women from the UK and Ireland and North-West Europe, who had lower diabetes prevalence rates than Australian-born women. Overall for both sexes, the people from the Middle East and North Africa had the highest standardised prevalence ratios followed by South-East Asia and Southern Asia (AIHW, 2003).

Refugees

Refugees are a particularly vulnerable group, and over 20 000 refugees arrive in Australia each year. Research led by a team at Monash University,

Box 1. Care example.

Narrative

Mrs L is a sixty-year-old refugee from Vietnam. Soon after her arrival in Australia, she was found to have type 2 diabetes. Prior to arriving in Australia, Mrs L lived in a troubled and oppressed community, under constant threat of violence and aggression against her large family. The family lived on minimal income from a small shop in a village, where they also had a small holding. They were very poor and had little beyond primary education. They had access to emergency medical care only via mission-run clinics.

It became clear fairly soon after her arrival that she had had poorly controlled diabetes for many years, with evidence of retinopathy and kidney damage. Mrs L certainly had no experience of regular medical care and, in any case, was faced with other more pressing priorities. Her family was granted temporary visas but no long-term security. They had to rely on friends and the extended community for financial support and access to housing, and initially relied on the Red Cross to underwrite the cost of medical care, as they had no right to Medicare-funded care.

Nevertheless, Mrs L managed to see a GP in a community health centre regularly for care of her diabetes, initially managed with oral medication and diet, with input from a diabetes educator. Yet achieving glycaemic targets was difficult for her and the GP. Together, they would review her medicines and how to take them. She seemed to understand the concern, but there was much more going on in her life than simply managing her diabetes. Her retinopathy and kidney damage progressed. With help from the local hospital diabetes outpatient clinic she commenced insulin, a difficult task for a non-English-speaking person who was nearly blind and with little experience of medical care. Nevertheless, she had managed to move closer to her glycaemic target, which seemed a great achievement to her and the GP.

Eventually a letter, containing an element of frustration, from her hospital diabetes specialist arrived at the general practice:

“I reviewed Mrs L today...She describes herself as stable however she has not been recording any blood glucoses...she hasn’t followed my advice to increase her morning insulin...her HbA_{1c} is similar to before at 72 mmol/mol (8.7%)...she doesn’t seem willing to accept my advice...I very much doubt she will improve beyond this point.”

Discussion

General practice and primary care teams can play a key role in helping individuals to manage their diabetes and achieve targets. Accessible care without financial barriers, with the use of interpreters and facilitating access to local members of the multidisciplinary diabetes team are all important. Using materials at an appropriate level of health literacy is also critical. Above all, the GP can play a key role by providing continuity of care and avoiding stereotyping and lowering expectations of patients who come from socio-economically disadvantaged backgrounds. Research suggests that patients from disadvantaged backgrounds are keen to engage actively in making decisions about their medical care and self-management. The GP can play a critical role in helping them to do so.

“GPs could play a key role in providing enhanced care for refugees by leading the provision of continuing health care.”

Melbourne, Vic (Russell et al, 2013) identified that: “refugees in Australia face profound and complex health and social problems, and there are inadequacies in the health care system, particularly: refugees struggle to access primary health care that matches their needs; Health professionals often find themselves unable to communicate effectively with refugees; Health services focused on providing care to refugees are not well coordinated with each other

or with mainstream health services. Refugees are likely to fall through the gaps between services.”

The study suggested GPs could play a key role in providing enhanced care for this group by leading the provision of continuing health care for refugees (see *Box 1*), using health case managers and qualified interpreters, and addressing financial barriers to care.

Page points

1. Engagement with individuals who have a mental condition and diabetes can be challenging, and this may be made more difficult if the mental condition is undiagnosed.
2. In Australia, the attributable excess mortality burden from all causes due to socio-economic status is estimated at 19% for men and 12% for women.
3. Individuals from socio-economically disadvantaged areas, for example, were less likely to have their BMI, blood pressure and smoking status recorded, were less likely to be tested for HbA_{1c} and had more poorly controlled HbA_{1c}.

Mental health

Even historically, people have drawn connections between diabetes and depression. In the 17th century, the physician Thomas Willis proposed that diabetes was caused by “long sorrow and other depression” (Balhara, 2011). There remains some truth to this hypothesis in modern healthcare. In a review of the evidence, the odds of depression across 20 controlled studies in people with diabetes was found to be double that of the control group without diabetes (Anderson et al, 2001). In Australia, the 2012 AusDiab Study (Tanamas et al, 2013) found the prevalence of depression was 65% higher in those with diabetes compared to those without diabetes (16.2% vs 9.8%, respectively).

The strong relationship between diabetes and mental illness is in fact a bidirectional one, and the link between the two can manifest in many ways (Balhara [2011] explores this in detail):

- The two conditions can develop independently of one another.
- During the course of diabetes, the condition can have a role in the pathogenesis of psychiatric disorders.
- Conversely, psychiatric disorders are independent risk factors for diabetes, and medications used to treat mental illness can have side effects resulting in diabetes or impaired glucose tolerance, particularly with antipsychotic polypharmacy (Gallego et al, 2012).
- It is also important to note that there may be an overlap between the clinical presentation of hypoglycaemia and psychiatric disorders.

Engagement with individuals who have a mental condition and diabetes can be challenging, and this may be made more difficult if the mental condition is undiagnosed. Indeed, there may be up to 45% of individuals with diabetes in whom such a condition remains undiagnosed (Li et al, 2010). Other potential implications for healthcare beyond engagement in a clinical setting are poor treatment adherence (Gonzalez et al, 2007), poor glycaemic control (Lustman et al, 2000) and an increased risk of hospitalisation (Das-Munshi et al, 2007). Overall, there is strong evidence of poor self-care behaviour in people with diabetes

and a mental condition (Gonzalez et al, 2007).

In terms of accessing healthcare, there is evidence of increased healthcare use and associated costs in people with diabetes who have depression compared with those who do not (Egede et al, 2002). But this does not necessarily lead to better outcomes; rather, the evidence shows worse outcomes, in part owing to the difficulties in communicating with clinicians (Piette et al, 2004). GPs may tend to prioritise managing the mental health issues over diabetes care. Models of care may have to be adapted to improve engagement and enhance diabetes outcomes (Kahn et al, 2009).

Socio-economic disadvantage, health literacy and homelessness Socio-economic disadvantage

In Australia, the attributable excess mortality burden from all causes due to socio-economic status (SES) is estimated at 19% for men and 12% for women. This is greater than the fraction attributed to all behavioural risk factors in total, such as smoking, diet and reduced physical activity (Mathers et al, 1999). Diabetes is not exempt from the effects of SES. A number of studies have found that adults variously defined as low SES, on the basis of educational achievement, occupation or residential area, have higher prevalence of diabetes (1.5–3 times higher than the least disadvantaged communities), higher mortality from diabetes and higher prevalence of associated biological risk factors for diabetes.

An Australian study (Overland et al, 2002) identified that socio-economically disadvantaged people with diabetes had a low prevalence of GP care and noticed that disadvantaged people were less likely to be referred or to have particular further investigations. Studies in the UK have also demonstrated significant social variations in diabetes care processes. Individuals from socio-economically disadvantaged areas, for example, were less likely to have their BMI, blood pressure and smoking status recorded, were less likely to be tested for HbA_{1c} and had more poorly controlled HbA_{1c} (Hippisley-Cox et al, 2004).

Health literacy

Addressing the barriers to access care are clearly

important (Levesque et al, 2013). From an individual GP perspective, health literacy may be an important factor in providing quality diabetes care and supporting self-management. For example, low health literacy has been associated with hypoglycaemia (Sarkar et al, 2010) and fewer recordings of glucose levels (Mbaezue et al, 2010). Using low literacy materials (Howard-Pitney et al, 1997), using strategies such as “teach and teach back”, and involving family members can be an important strategy to overcome such barriers (Martire et al, 2004).

Homelessness

Homelessness is a particular and often extreme case of social disadvantage. In Australia, there are currently over 100 000 people (56% male) who are homeless, which accounts for 0.5% of the population (Homelessness Australia, 2012). The Australian Bureau of Statistics states that when a person does not have suitable accommodation alternatives, they are considered homeless if their current living arrangement:

- Is in a dwelling that is inadequate.
- Has no tenure, or if their initial tenure is short and not extendable.
- Does not allow them to have control of, and access to space for social relations (Homelessness Australia, 2012).

In the recent past, the face of homelessness has changed to include a wider demographic. From predominantly single alcoholic adult men, homelessness now affects adolescents, single mothers, the unemployed, elderly people and recent immigrants (Turnbull et al, 2007). The homeless population is more prone to chronic medical conditions and more prone to experience barriers accessing healthcare (Hwang and Bugeja, 2000). Of particular relevance, there is evidence of poor glycaemic control and difficulties in managing diabetes (Hwang and Bugeja, 2000). In addition to this, there is evidence of poor nutritional status and mental health problems (Langnäse and Müller, 2001). The prevalence of diabetes in the homeless population in some studies was found to be higher too (Arnaud et al, 2010). The increased risks associated with diabetes

that are experienced by the homeless population include hypoglycaemia, foot problems, non-adherence and insulin misuse. These may seem like obvious risks, and similar to those in a non-homeless person with diabetes, but a lack of easy access to healthcare services is liable to augment each of them.

While average healthcare costs can be higher in the homeless population, it is important to be aware that often the care that these individuals receive is in emergency departments (Padgett et al, 1990; Salit et al, 1998). Indeed, a homeless individual is up to 5 times more likely to be admitted to hospital than someone in the general population (Martell et al, 1992). Effective management of a long-term condition may not be at the top of the individual's, or the healthcare provider's, list of priorities. Rather, it may be that an acute condition takes priority.

Finally, as homeless individuals may not have stability in their lives and their lifestyle behaviours may be sporadic, it can be very challenging for healthcare professionals to engage with this population.

Conclusion

It can be easy for us as healthcare professionals to get so caught up in the management of diabetes in the general population (which often is the majority of the population we serve) that we become tempted to apply a standard template of healthcare provision for all. Disadvantaged groups are often hard to reach and experience greater inequities, compared with the general population, and can often get neglected. Successful approaches in diabetes management for the hard-to-reach population should be championed, and learnings should be disseminated widely to promote replication in other areas with other groups. Although this module has focused on certain groups, it has applicability to other hard-to-reach groups, including people with learning disabilities and children and young people with diabetes. Overall, there is no one solution to improving diabetes care in groups where there are inequities. Recognising the inequities is the first step, which then allows us to confront the challenge of taking effective action. ■

Page points

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2. In Australia, there are currently over 100 000 people who are homeless, which accounts for 0.5% of the population.
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“Recognising the inequities among certain populations is the first step, which then allows us to confront the challenge of taking effective action.”

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AIHW (2003) *A picture of diabetes in overseas-born Australians. Bulletin no 9, AUS 38*. AIHW, Canberra, ACT

AIHW (2015) *Cardiovascular disease, diabetes and chronic kidney disease. Australian facts: Aboriginal and Torres Strait Islander people*. AIHW, Canberra, ACT. Available at <http://bit.ly/24nsSn7> (accessed 23.02.16)

Anderson RJ, Freedland KE, Clouse RE, Lustman PJ et al (2001) The prevalence of comorbid depression in adults with diabetes: a meta-analysis. *Diabetes Care* **24**: 1069–78

Arnaud A, Fagot-Campagna A, Reach G et al (2010) Prevalence and characteristics of diabetes among homeless people attending shelters in Paris, France, 2006. *Eur J Public Health* **20**: 601–3

Balhara YP (2011) Diabetes and psychiatric disorders. *Indian J Endocrinol Metab* **15**: 274–83

Das-Munshi J, Stewart R, Ismail K et al (2007) Diabetes, common mental disorders, and disability: findings from the UK National Psychiatric Morbidity Survey. *Psychosom Med* **69**: 543–50

Doherty P et al (2004) *Delivering services to hard to reach families in On Track areas: definition, consultation and needs assessment*. Development and Practice Report 15. Home Office, London, UK. Available at: <http://bit.ly/1qZs8CM> (accessed 10.07.14)

Egede L, Zheng D, Simpson K (2002) Comorbid depression is associated with increased health care use and expenditures in individuals with diabetes. *Diabetes Care* **25**: 464–70

Gallego JA, Nielsen J, De Hert M et al (2012) Safety and tolerability of antipsychotic polypharmacy. *Expert Opin Drug Saf* **11**: 527–42

Gonzalez JS, Safren SA, Cagliero E et al (2007) Depression, self-care, and medication adherence in type 2 diabetes: relationships across the full range of symptom severity. *Diabetes Care* **30**: 2222–7

Hanif W, Karamat MA (2009) Cultural aspects. In: Khunti K et al (eds). *Diabetes UK and South Asian Health Foundation recommendations on diabetes research priorities for British South Asians* (first edition). Diabetes UK, London, 27–35

Hippisley-Cox J, O’Hanlon S, Coupland C (2004) Association of deprivation, ethnicity, and sex with quality indicators for diabetes: population based survey of 53,000 patients in primary care. *BMJ* **329**: 1267–9

Homelessness Australia (2012) *Homelessness statistics*. Homelessness Australia, Lyneham, ACT. Available at: <http://bit.ly/1n8icRQ> (accessed 23.03.16)

Howard-Pitney B, Winkleby MA, Albright CL et al (1997) The Stanford Nutrition Action Program: a dietary fat intervention for low-literacy adults. *Am J Public Health* **87**: 1971–6

Hwang SW, Bugeja AL (2000) Barriers to appropriate diabetes management among homeless people in Toronto. *CMAJ* **163**: 161–5

Kahn LS, Fox CH, Carrington J et al (2009) Telephonic nurse case management for patients with diabetes and mental illnesses: a qualitative perspective. *Chronic Illn* **5**: 257–67

Langnäse K, Müller MJ (2001) Nutrition and health in an adult urban homeless population in Germany. *Public Health Nutr* **4**: 805–11

Levesque J-F, Harris MF, Russell G (2013) Patient-centred access to health care: conceptualising access at the interface of health systems and populations. *International J Equity Health* **12**: 18

Li C, Ford ES, Zhao G et al (2010) Undertreatment of mental health problems in adults with diagnosed diabetes and serious psychological distress: the behavioral risk factor surveillance system, 2007. *Diabetes Care* **33**: 1061–4

Liaw ST, Hasan I, Wade V et al (2015) Improving cultural respect to improve Aboriginal health in general practice: a multi-methods and multi-perspective pragmatic study. *Aust Fam Phys* **44**: 387–92

Lustman PJ, Anderson RJ, Freedland KE et al (2000) Depression and poor glycemic control: a meta-analytic review of the literature. *Diabetes Care* **23**: 934–42

Martell JV, Seitz RS, Harada JK et al (1992) Hospitalization in an urban homeless population: the Honolulu Urban Homeless Project. *Ann Intern Med* **116**: 299–303

Martire LM, Lustig AP, Schulz R et al (2004) Is it beneficial to involve a family member? A meta-analysis of psychosocial interventions for chronic illness. *Health Psychol* **23**: 599–611

Mathers C, Vos T, Stevenson C (1999) *The burden of disease and injury in Australia*. AIHW, Canberra, ACT

Mbaezue N, Mayberry R, Gazmararian J et al (2010) The impact of health literacy on self-monitoring of blood glucose in patients with diabetes receiving care in an inner-city hospital. *J National Med Assoc* **102**: 5–9

Overland J, Hayes L, Yue DK (2002) Social disadvantage: its impact on the use of Medicare services related to diabetes in NSW. *Aust N Z J Public Health* **26**: 262–5

Padgett D, Struening EL, Andrews H (1990) Factors affecting the use of medical, mental health, alcohol, and drug treatment services by homeless adults. *Med Care* **28**: 805–21

Piette J, Richardson C, Valenstein M (2004) Addressing the needs of patients with multiple chronic illnesses: the case of diabetes and depression. *Am J Manag Care* **10**: 152–62

Russell G, Harris M, Cheng I-H et al (2013) *Coordinated Primary Health Care for Refugees: A Best Practice Framework for Australia*. Australian Primary Health Care Research Institute, Southern Academic Primary Care Research Unit, Dandenong, Vic

Salit SA, Kuhn EM, Hartz AJ et al (1998) Hospitalization costs associated with homelessness in New York City. *N Engl J Med* **338**: 1734–40

Sarkar U, Karter AJ, Liu JY et al (2010) Hypoglycemia is more common among m diabetes patients with limited health literacy: the Diabetes Study of Northern California (DISTANCE). *J Gen Internal Med* **25**: 962–8

Tanamas SK, Magliano DJ, Lynch B et al (2013) *AusDiab 2012: the Australian Diabetes, Obesity and Lifestyle study*. Baker IDI Heart and Diabetes Institute, Baker IDI Heart and Diabetes Institute, Melbourne, Vic

Turnbull J, Muckle W, Masters C (2007) Homelessness and health. *CMAJ* **177**: 1065–6

Online CPD activity

Visit www.pcdsa.com.au/cpd to record your answers and gain a certificate of participation

Participants should read the preceding article before answering the multiple choice questions below. There is ONE correct answer to each question. After submitting your answers online, you will be immediately notified of your score. A pass mark of 70% is required to obtain a certificate of successful participation; however, it is possible to take the test a maximum of three times. A short explanation of the correct answer is provided. Before accessing your certificate, you will be given the opportunity to evaluate the activity and reflect on the module, stating how you will use what you have learnt in practice. The CPD centre keeps a record of your CPD activities and provides the option to add items to an action plan, which will help you to collate evidence for your annual appraisal.

1. Which of the following is the MOST appropriate statement concerning the availability of good healthcare? Select ONE option only.

- A. Good access to care tends to be available equally across different population groups
- B. Good access to care tends to be available in inverse proportion to local population needs
- C. Good access to care tends to be available in proportion to local population needs
- D. There is no statistically significant evidence concerning the availability of good access to care in different population groups

2. What is the approximate INCREASED prevalence of diabetes, if any, in Aboriginal and Torres Strait Islander people compared with the overall Australian population? Select ONE option only.

- A. Twice as high
- B. 3–4 times as high
- C. 10 times as high
- D. 20 times as high
- E. No difference

3. Which of the following culturally diverse background groups in Australia is MOST likely to have the HIGHEST prevalence of type 2 diabetes? Select ONE option only.

- A. Southern and Eastern Europe, and Central Asia
- B. South-East Asia and South Asia
- C. Middle East and North Africa
- D. North-West Europe
- E. UK and Ireland

4. What are important strategies for providing high-quality general practice care to refugee populations? Select ONE option only.

- A. Use care coordinators or case managers if necessary
- B. Provide the same quality of care as you would to other patients in the practice
- C. Use interpreters where appropriate
- D. Reduce financial barriers to care if possible
- E. All of the above

5. Which is the MOST appropriate statement about the effect of the increased use of healthcare by people with depression compared with people without depression? Choose ONE option only.

- A. Better clinical outcomes
- B. No difference in clinical outcomes
- C. No evidence regarding differing outcomes
- D. Worse clinical outcomes

6. What proportion of people with diabetes are likely to have depression compared to people without diabetes? Select ONE option only.

- A. About 50% more likely
- B. 1.5–2 times as likely
- C. 4 times as likely
- D. 4–5 times as likely
- E. 10 times as likely

7. Which is the LEAST appropriate statement about the link between diabetes and depression? Choose ONE option only.

- A. Depression can develop independently of diabetes

- B. Depression can cause diabetes
- C. Diabetes can develop independently of depression
- D. Diabetes can cause depression
- E. Diabetes control can be worse in people with depression

8. Approximately how many people are homeless in Australia currently? Select ONE option only.

- A. 10 000
- B. 25 000
- C. 75 000
- D. 100 000
- E. 200 000

9. What are key factors in improving access to care for Aboriginal and Torres Strait Islander people. Choose ONE option only.

- A. Acknowledging a history of dispossession and ongoing experiences of racism in the community
- B. Providing culturally respectful care
- C. Providing flexible appointment arrangements where possible
- D. All of the above

10. In relation to the link between socio-economic disadvantage and diabetes, which of the statements below is correct? Choose ONE option only.

- A. Diabetes is up to 3 times as common
- B. A higher prevalence of risk factors is part of the explanation for the association
- C. People with diabetes from socio-economically disadvantaged backgrounds are less likely to be referred for further investigations
- D. All of the above