

Barriers to primary health care access—an update

Katrina Erny-Albrecht
Petra Bywood

Primary Health Care Research & Information Service (PHCRIS)
March 2016

Expert Plus: Barriers to primary health care access—an update

© Primary Health Care Research and Information Service 2016

March 2016

Acknowledgements: Thank you to expert contributors Professor Mark Harris and Professor Grant Russell for advice and comments on a draft of this paper.

Suggested citation

Erny-Albrecht K, Bywood P. (2016). *Expert Plus. Barriers to primary health care access—an update*. PHCRIS Adelaide: Primary Health Care Research & Information Service.

The information contained in this report is based on sources believed to be reliable. PHCRIS at Flinders University, together with its members and employees, gives no guarantee that the said sources are correct, and accepts no responsibility for any resultant errors contained herein and any damage or loss, howsoever caused, suffered by any individual or corporation. The findings and opinions in this report are based on research undertaken by PHCRIS as independent consultants and do not purport to be those of the Australian Department of Health.

Contents

Contents	3
Tables and figures	4
Abbreviations	5
Executive summary	6
Policy context	6
Key findings	6
Policy considerations	6
Background.....	7
Aim	7
Methods	7
Expert Plus definition and protocol	7
Search methodology.....	8
Findings	9
Summary of Expert opinion	9
Recent high level evidence.....	9
Systematic reviews and Evaluation studies.....	9
Key trends and other publications.....	11
Equity and the use of primary health care services - Australia	11
Defining access to health care.....	12
Cost implications	13
Summary and discussion	13
References.....	15
Appendix.....	17

Tables and figures

Table 1	Summary of included systematic reviews and evaluation studies.....	17
Figure 1	Potentially avoidable hospital separations (all Australian hospitals) according to socioeconomic quintile.	11
Figure 2	Framework for access to primary health care services. Adapted from (Levesque et al., 2013)	12

Abbreviations

AMSTAR	Assessing the Methodological Quality of Systematic Reviews
CALD	Culturally and linguistically diverse
GP	General Practitioner
IAHP	Indigenous Australians' Health Programme
ICDP	Indigenous Chronic Disease Package
NZ	New Zealand
OECD	Organization for Economic Co-operation and Development
PAH	Potentially avoidable hospitalisation
PHCRIS	Primary Health Care Research and Information Service
SES	Socioeconomic status
UK	United Kingdom
US	United States of America

Executive summary

The aim of this *Expert Plus* report is to provide a brief insight into current opinion and evidence on barriers to accessing primary health care services in Australia by people from disadvantaged groups.

Policy context

Access to primary health care services is the focus of a number of Australian government policies including but not restricted to:

- Indigenous Australians' Health Programme (IAHP)
- Bridging the Gap, Partnerships for change in refugee child & family health

Key findings

Both expert opinion and a scoping review of high level evidence indicate support for the following assertions with respect to access to primary health care:

- Based on rate of potentially avoidable hospitalisations as a proxy¹ for limited access to primary health care, the gap in access to primary health care between the lowest and highest socioeconomic levels remains substantial
- People of low socioeconomic status continue to report barriers to access: Indigenous Australians, refugees, elderly, low-income earners with chronic conditions
- Poor health literacy, language and cost-related barriers are commonly associated with poor access to primary health care services
- Australian out-of-pocket health expenditure is similar to the OECD average but higher than the United Kingdom (UK), New Zealand (NZ) and Canada
- International and Australian surveys demonstrate that a significant proportion of elderly and low-income (non-concessional) groups are unable to access timely care due to financial barriers
- The model of access to primary health care, including both supply (service accessibility) and demand (individual capacity to access care) elements (Levesque et al., 2013), has been widely cited and provides a useful framework for future evaluation work and policy development
- A number of programmes that have been reported in the literature offer important insights into future directions towards improved health care equity; but Australian models to date have generally focused on care service 'supply' dimensions rather than patient 'demand' dimensions
- Culturally and linguistically sensitive campaigns to increase awareness of the availability of services may help to improve access and address rates of ED use for non-urgent conditions.

Policy considerations

- Current literature supports the need to improve access for low socioeconomic status (SES) groups including Indigenous people, refugees, and the elderly; but expert opinion and research observations caution against exclusionary programmes or policies
- Policies targeting 'demand' elements including health literacy/language/information barriers as well as out-of-pocket health care costs should be further developed
- Flexibility in approaches and programme design is required to address the diverse needs of groups impacted by access issues; and the potential for access interventions to increase inequity should be considered
- More rigorous evaluation studies, including cost-effectiveness, are required to strengthen the evidence base for policy development.

¹ It is acknowledged that the appropriateness of potentially avoidable hospitalisations as a proxy for access to primary health care is debatable as discussed by Katterl 2012, but evidence supports access to primary care as one of the key determinants of this event.

Background

People from socioeconomically disadvantaged groups are more likely to use primary health care services but are also more likely to experience disparities in access to primary health care (Bywood et al., 2011). Groups frequently associated with poor access to primary health care include:

- People from low socioeconomic backgrounds
- Aboriginal and Torres Strait Islander people
- People who experience homelessness
- People living in rural and remote areas
- People with lived experience of mental illness
- People with drug and/or alcohol problems
- Prisoners
- Refugees and asylum seekers
- Victims of domestic violence
- People living with a disability
- The elderly
- Caregivers

There is substantial overlap between many of these individual groups and socioeconomic disadvantage (Bywood 2011). Health care equity relates to people's access to or use of services based on need, as distinct from health care equality based on provision of the same services irrespective of need (Katterl, 2011). The gap in health care equity has been a focus of a number of Australian government policies; for example, Indigenous Australians' Health Programme (IAHP) and Bridging the Gap, Partnerships for change in refugee child & family health.

Demand for information

In 2011, the Primary Health Care Research & Information Service (PHCRIS) prepared a RESEARCH ROUNDup on Socioeconomic status and access to PHC (Katterl, 2011). This has been viewed 10 956 times, and downloaded 1 326 times to December 2015. The current importance of this topic to the PHC community is demonstrated by the most recent data indicating that 1 677 page views were recorded in the 12-month period to 4 January 2016.

This *Expert Plus* report provides an update to this publication, but more broadly on access to primary health care for disadvantaged groups.

Aim

The aim of this *Expert Plus* report is to provide a brief insight into current expert opinion and evidence on barriers to accessing primary health care services in Australia by people from disadvantaged groups.

Methods

Expert Plus definition and protocol

An *Expert Plus* report is designed to rapidly respond to the need for high level insights into a clearly defined topic or question. This is neither a systematic nor rapid review, both of which use multiple data sources to identify relevant research, but provides a timely, high level overview of expert thinking relevant to the topic and selected research findings from systematic reviews and/or evaluation studies. The aim is to highlight recent literature and developments, which may lead to further, more detailed investigation in the future.

Specifically, experts in the field (where possible, at least two) are approached to provide insights into an area of health care including, but not restricted to:

- 1 Current key issues
- 2 Promising approaches
- 3 Key publications influencing current thinking.

This is followed by a rapid, pragmatic search of one literature database (PubMed) to identify relevant, recent systematic reviews and evaluation studies. In the evidence grade hierarchy systematic reviews and meta-analyses (particularly where based on randomised trials) are generally regarded as grade I evidence (highest) based on the reduced likelihood of bias with respect to the reported outcomes. Evaluation studies are rigorous critical assessments, designed to determine whether an aspect of healthcare fulfils its objectives (Blackwood, 2009). They can take a number of research study designs including randomised and non-randomised studies, and often provide important information on the 'real world' outcomes associated with implemented changes. Articles are selected based on a scan of abstracts, and full texts retrieved for further review. As part of the review process, the quality of systematic review articles is assessed using the AMSTAR appraisal tool, and a brief narrative summary of findings is prepared (Shea et al., 2007). Evaluation studies are reported as presented without appraisal of quality. Findings from both approaches are then synthesised into a short *Expert Plus* report.

Search methodology

The PubMed literature database was scanned for relevant literature using the terms “socioeconomic level” AND/OR “access to primary health care” AND Australia. Systematic reviews and evaluation studies published between January 2012 and January 2016 were purposely targeted. Abstracts were reviewed for relevance, and full texts of relevant systematic reviews and evaluation studies were retained for closer review. The quality of systematic review articles was assessed using the AMSTAR appraisal tool. A narrative summary of relevant findings from the systematic reviews and evaluation studies was prepared. In addition to this, key publications highlighted by the experts were examined to provide an insight into the key issues raised, and publicly available data were used to examine current 'real world' trends.

Findings

Summary of Expert opinion

Relative to other OECD countries, it was suggested that Australia may be underperforming in terms of access to health care for disadvantaged groups.

According to the experts, although there is good breadth in medical service availability in Australia, there is accumulating evidence of a need to expand programmes to address factors relevant to patients' ability to access services and the 'demand' dimension of primary health care access including: out-of-pocket costs, access to allied and oral health services, health literacy, and patient navigation of, and engagement with, the health system. It was also noted by one expert that addressing social determinants alone is unlikely to reduce inequities; and targeted implementation strategies may even serve to widen inequities for some vulnerable groups. While agreeing that socioeconomically disadvantaged groups continue to have difficulty accessing care, it was also noted that there is a need to broaden the focus of current programmes beyond narrowly defined socioeconomically disadvantaged groups and targeting of people with a specific disease or condition. Vulnerable groups such as complex patients, asylum seekers and new immigrants were identified as also experiencing difficulty accessing care.

While acknowledging that there is good health insurance coverage in Australia at the population level (proportion covered), expert opinion also supported the need to address the two related dimensions of depth of coverage (proportion of cost covered) and breadth of coverage (range of services covered). Pointing to a number of recent surveys including those of the Commonwealth Fund, and Carpenter's survey of older Australians (Carpenter et al., 2015, Osborn et al., 2014), it was suggested that the evidence indicates Australia has relatively high out-of-pocket expenses compared to other comparable OECD countries and this is likely to hinder access to primary health care. Funding issues on the service supply side of access considerations were also raised as areas to be addressed; specifically consideration of the values applied in determining what performance is rewarded.

Based on expert opinion, organisational reforms aimed at improving access have often met with limited success, in part due to poor scalability and limited reach, and appropriate evaluation is often lacking. It was agreed that the concept of access needs to be broadened beyond targeting of specific groups and care 'supply' dimensions of service affordability and workforce availability, with support increasing for the importance of patient ability to access health care services. Specifically, it was noted that the effectiveness of current reforms is often limited by the lack of action to address population ability or capacity to overcome barriers to access, with increasing evidence for the importance of health literacy. To this end, the Levesque et al. (2013) framework, which is based on 10 elements, five dimensions each from the 'supply' (service accessibility) and 'demand' (patient ability to access) sides of health care access, provides a useful starting point to evaluate current strategies and develop new ones (see **Figure 2**). The framework is discussed further in a later section of this report.

Recent high level evidence

Systematic reviews and Evaluation studies

The aim of this section is to highlight recent high level evidence presented in the published literature. A total of 11 full-text articles published since 2012 were reviewed for the current update. The quality of systematic reviews was generally moderate to high (See Appendix). In line with the insights

provided by our experts, recent systematic reviews indicate that language and culture (Bellamy et al., 2015, Goris et al., 2013, Joshi et al., 2013, Russell et al., 2013), as well as geography and workforce (Brundisini et al., 2013, Dawson et al., 2015), currently represent important barriers to accessing primary health care. In most cases, between-study heterogeneity was a major barrier to conducting more robust investigation of the literature, and many authors commented on the need to conduct more rigorous 'real world' evaluations including cost implications, to aid policy development in this area. An attempt to define a set of 'core' primary health care services to which rural and remote Australians should have access was also hampered by between-study heterogeneity (Carey et al., 2013). Access to primary health care services for Indigenous people and refugees were dominant themes within recent systematic reviews.

Based on a review of 13 type 2 diabetes management programmes, it was reported that programmes targeting Indigenous people of Australia often focus on supply side elements in terms of the ability of the clinical systems to manage chronic diseases, while in NZ the emphasis is on improving Maori people's access to mainstream services (Gibson and Segal, 2015). An evaluation report for the remote community Fitzroy Valley model of chronic disease service delivery also concentrated on supply elements with incentives and care plans driving increased access (Reeve et al., 2015). Additionally, the report described the importance of a shared governance model of partnership which facilitated direct discussions between community and mainstream providers

A large international systematic review of 75 evaluated interventions relating to access for people with chronic disease also noted that Australian interventions tended to address 'supply side' elements of affordability, availability, and acceptability; but improving coverage of the universal system was often a priority (Comino et al., 2012). In that review, US interventions also tended to focus on the supply dimensions of access particularly to reach uninsured and marginalised groups; while in the UK where health care is free, the focus was on enhanced access to episodic care. Overall in all settings, programmes using a combination of strategies targeting supply and demand dimensions were more effective. Specifically, successful strategies targeted three areas: system level change/service delivery policy/incentives; Practice level reorganization based on multidisciplinary care; Community level programmes taking services and education to patients.

Systematic reviews addressing refugee access to primary health care found that, across the different settings, common barriers to primary health care access were language and culture, with use of interpreters and bilingual staff important components of successful multidisciplinary programmes to address this inequity (Bellamy et al., 2015, Joshi et al., 2013, Russell et al., 2013, Goris et al., 2013). In the US, engagement with multicultural health workers led to improved access and reduced emergency visits among culturally and linguistically diverse (CALD) people (Goris et al., 2013). However, Russell et al. (2013) cautioned that use of family members or informal interpreters, as distinct from specialized trained workers, is likely to impact negatively on the quality of care. In reviewing 36 articles, Dawson et al. (2015) found numerous examples whereby access to primary health care had been improved through nurse involvement with GPs and culturally sensitive community health workers; again supporting the role of multidisciplinary teams. Finally, limiting or eliminating out-of-pocket cost was an important element of programmes targeting primary health care access for refugees or injecting drug users, and underscored the often poor socioeconomic status of these groups (Islam et al., 2012, Joshi et al., 2013).

Key trends and other publications

Equity and the use of primary health care services—Australia

Potentially avoidable hospitalisation (PAH) is often used as an indicator of accessibility to primary health care (Katterl, 2011). Although the appropriateness of potentially avoidable hospitalisations as a proxy for access to primary health care is debated in the published literature, as discussed by (Katterl et al., 2012), current evidence supports access to primary care as one of the key determinants of this event. Australian PAH rates have improved across all SES quintiles when comparing the periods 2009–10 and 2013–14 (Figure 1). However, the ‘gap’ between those in the lowest and highest SES quintiles persists.

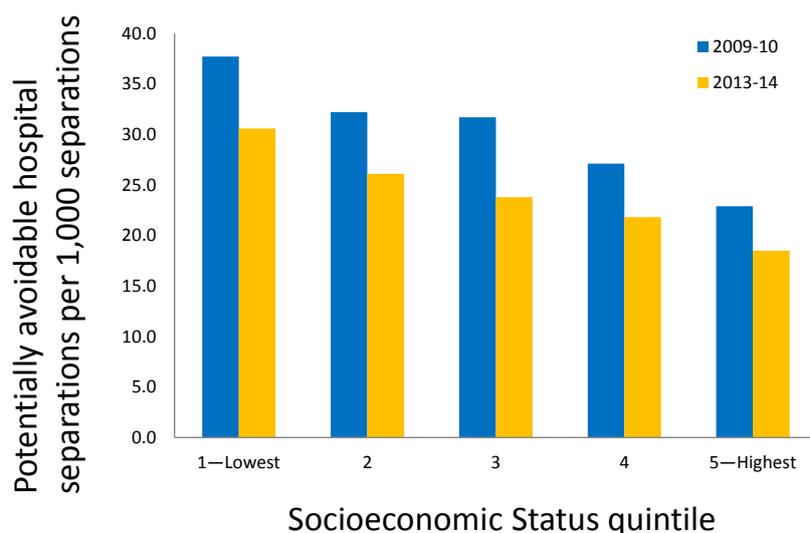


Figure 1 Potentially avoidable hospital separations (all Australian hospitals) according to socioeconomic quintile.

Source: Australian Institute of Health and Welfare 2011. Admitted patient care 2009-10; Australian Institute of Health and Welfare 2015. Admitted patient care 2013–14, both available at <http://www.aihw.gov.au>

An international survey-based comparison of emergency department (ED) visits among general practice patients in 34 countries for 2011–13, has also confirmed the usefulness of ED visits as an indicator of access to primary health care, with reduced rates associated with good accessibility and continuity of primary care (van den Berg et al., 2016). In that survey, rates of ED visits among Australian respondents were mid-way (approx. 30%) between the highest (Spain 40%) and lowest (Netherlands 18%) for comparable countries (van den Berg et al., 2016). For Australian respondents visiting ED in the past 12 months, reasons given were: 25.5 per cent GPs do not treat condition, 23.8 per cent GP not available, 2.1 per cent financial reasons, 5.9 per cent expect shorter waiting time, 3.5 per cent ED care is better, 7.6 per cent ED more convenient to reach.

A Commonwealth Fund international survey of the impact of accessible and continuous primary care on ED use by older adults (11 countries) reported similar outcomes (Osborn et al., 2014). More specifically, for the Australian cohort of 1 670 adults aged 65 years or more, approximately 30 per cent had used ED in the past two years, but it was notable that only seven per cent of respondents did so because there was no GP available (Osborn et al., 2014). The availability of GP services was also reflected in 71 per cent of respondents indicating that they could get a next-day appointment with their GP, and the vast majority of respondents were very pleased with the care received. This was further supported by the Commonwealth Fund international survey of primary care physicians, where Australian GPs indicated that 78 per cent of practices had arrangements for patients to see a

doctor or nurse after hours without going to ED (Osborn et al., 2015). In contrast, as noted above, van den Berg et al. (2016) reported that almost 24 per cent of ED visits by Australian general practice patients included in their survey were due to the GP not being available. Service availability was also recently investigated by (Freed et al., 2015) for the Melbourne metropolitan area where, despite high rates of ED presentation for non-urgent conditions among younger patients, availability of same-day bulk-billed GP services for non-urgent childhood conditions was clearly demonstrated. This prompted the suggestion by Freed et al. (2015) that high rates of ED presentation may be a consequence of an incorrect media-driven perception that availability and accessibility of appointments for non-urgent conditions is a problem. This warrants further investigation and is likely to encompass health care service awareness and promotion as well as health literacy and language barriers.

Defining access to health care

A conceptual framework for access to health care based on five dimensions of accessibility of services (supply) and five dimensions of population ability or capacity to take up health services (demand) provides a useful context for investigations (Levesque et al., 2013) see figure 2. In this framework, the central dimensions of access to care encompass a broad domain from perception of need (need or desire for care) through to benefiting from care (consequences). This model has been applied in a number of settings, and was recently used to assess access following implementation of the Australian based Indigenous Chronic Disease Package (ICDP) (Baillie et al., 2015). Based on that analysis, it was concluded that the programme had focused predominantly on the supply-side of access and highlighted a need to incorporate demand-side elements including complementary programmes to address the social determinants of health, such as ability to pay (Baillie et al., 2015). Overall, the framework was found to be useful for analysis of access, although some overlap between dimensions was noted, as anticipated by the framework developers. This model provides a clear conceptualisation of the determinants of access and this is reflected in the high citation rate. As of January 2016, the publication outlining this framework (Levesque et al., 2013) had been cited 86 times suggesting widespread interest (google scholar, accessed 28 January 2016).

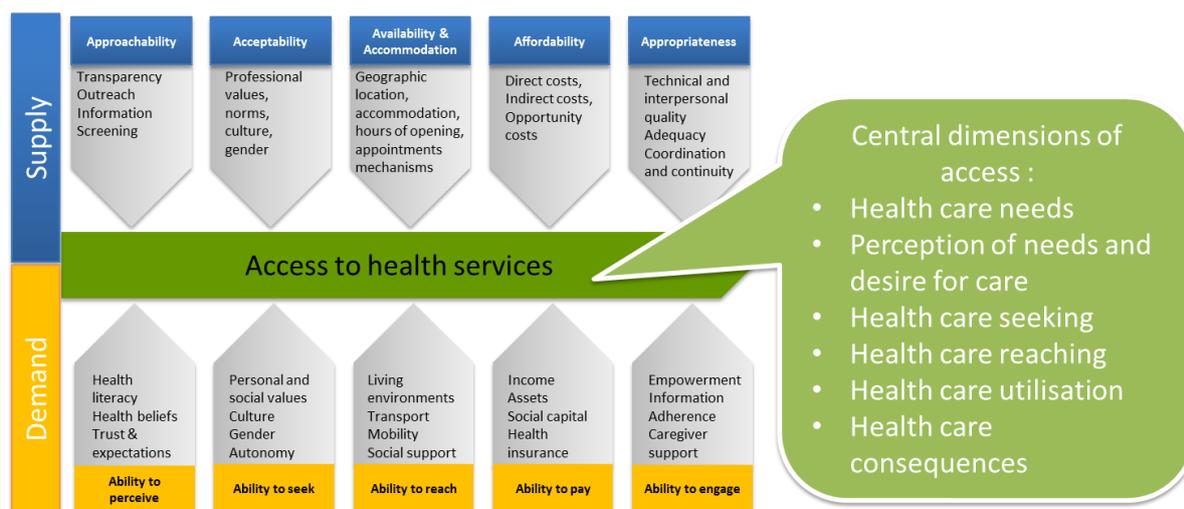


Figure 2 Framework for access to primary health care services. Adapted from (Levesque et al., 2013)

Cost implications

Overall, introduction of universal health insurance in Australia (Medicare) has reduced inequity in the use of primary medical care (Harris, 2012). However, ‘gaps’ in access to health care persist, and this has prompted the call for policy to proactively address “vertical equity” (appropriately providing different treatment for those with different needs) particularly among Indigenous people, refugees, low income earners and residents of remote locations (Dalziel and Richardson, 2015). A 2009 national survey of more than four thousand Australians aged 50 years and older found that almost four per cent were unable to afford out-of-pocket-health-expenses, and respondents aged between 50 and 65 years and/or having multiple chronic medical conditions were particularly vulnerable (Carpenter et al., 2015). An Australian modelling study of the cost burden of medicines for chronic diseases suggested that, while Pharmaceutical Benefits Scheme policies have successfully reduced the cost burden of medicines for families with concessional entitlements, medicine costs in low income households without concessions would consume 5–26 per cent of their discretionary income (Kemp et al., 2013). This out-of-pocket-health-expenditure would persist for up to three quarters of the year before additional subsidies become available under arrangements in place for 2009. The wide range in expenditure reflects major differences in cost depending on type and number of chronic conditions (Kemp et al., 2013).

Analysis of self-reported burden of prescription medicines in the 2009–10 Australian Bureau of Statistics Household Expenditure survey, found that approximately 25–31 per cent of both concession and general patients (no concession) reported moderate to extreme burden with the cost of their prescription medicines (Searles et al., 2013). The average weekly expenditure on prescription medicines for concession card holders was \$7.96 (95% CI \$7.03–\$8.88) and \$12.00 per week (95% CI \$10.82–\$13.19) for general patients, while eight per cent of respondents who had attended a hospital ED in the last three months (approximately one third) did so to access free medicines. Finally, the National Health Performance Authority reported that in 2013–14 the percentage of adults who delayed seeing a GP due to cost ranged between two and nine per cent, while four to 13 per cent delayed filling or did not fill a prescription for medication due to cost (National Health Performance Authority, 2015).

In international terms, the Commonwealth Fund survey of the impact of accessible and continuous primary care (11 countries) reported on potential financial barriers to access (Osborn et al., 2014). For the Australian survey cohort of 1 670 adults aged 65 years or more, approximately 13 per cent reported out-of-pocket medical expenses of \$2 000 or more in the past year, placing Australia third behind Switzerland (22%) and the US (21%), versus corresponding values of just four per cent in NZ and two per cent in the UK. Further to this, eight per cent of Australian respondents reported experiencing cost-related access problems in the past year, and seven per cent reported problems paying, or being unable to pay, medical bills in the past year, compared to 11 per cent in the US and two per cent in Switzerland. Finally, the latest OECD country comparison indicates that Australia’s out-of-pocket expenditure on health as a per cent of current expenditure on health is similar to the OECD average (19.9% for Australia based on 2012) but high compared to similar health systems including the UK (9.5%), Canada (14.3%), and NZ (12.6%) (Organisation for Economic Co-operation and Development, 2015).

Summary and discussion

Based on this brief overview incorporating expert opinion and a selective review of literature, access to primary health care services remains an issue in the Australian health care system. This finding is further supported by the persistent gap in potentially avoidable hospitalisation rates between

different socioeconomic levels. Although a number of reforms have been initiated, and surveys indicate that patient-reported availability of primary health care is generally good, there is room for improvement and more rigorous evaluation studies are needed to strengthen the evidence base informing policy. While efforts in the Australian setting to date have focused on the supply side of improving acceptability, availability and affordability of primary health care, expert opinion and the literature supports a need for greater emphasis on the 'demand' side of access to health care. This should include service awareness, health literacy and the ability to pay for services where out-of-pocket expenses are incurred. In an international context, implemented reforms are often limited by the lack of measures to address patient ability to access and navigate health care services, with the more successful programmes using a combination of 'demand' and 'supply' strategies.

Indigenous people, refugees and the elderly are frequently associated with poor access to primary health care services in Australia, and this is reflected in the published literature. However, new immigrants, asylum seekers and complex patients were also identified as people experiencing unmet needs and poor access. The risk of narrowly targeting specific vulnerable groups is that other vulnerable groups will 'fall through the gaps'. Culturally and linguistically sensitive campaigns to increase awareness of actual availability of general practice appointments and services are likely to benefit these groups, as well as benefiting those attending ED for non-urgent conditions. The ten-item framework proposed by Levesque et al. (2013) aligns well with recent literature and is likely to prove a useful tool in efforts aimed at refining and establishing programmes to address 'demand' dimension barriers to health care access, and in formulating policy to support them.

References

- BAILIE, J., SCHIERHOUT, G., LAYCOCK, A., KELAHER, M., PERCIVAL, N., O'DONOGHUE, L., MCNEAIR, T. & BAILIE, R. 2015. Determinants of access to chronic illness care: A mixed-methods evaluation of a national multifaceted chronic disease package for Indigenous Australians. *BMJ Open*, 5, e008103.
- BELLAMY, K., OSTINI, R., MARTINI, N. & KAIRUZ, T. 2015. Access to medication and pharmacy services for resettled refugees: a systematic review. *Aust J Prim Health*, 21, 273-8.
- BLACKWOOD, R. 2009. *Study design for assessing effectiveness, efficiency and acceptability of services including measures of structure, process, service quality, and outcome of health care* [Online]. HealthKnowledge: Public Health Action Support Team CIC. Available: <http://www.healthknowledge.org.uk/> [Accessed March 2016].
- BRUNDISINI, F., GIACOMINI, M., DEJEAN, D., VANSTONE, M., WINSOR, S. & SMITH, A. 2013. Chronic disease patients' experiences with accessing health care in rural and remote areas: a systematic review and qualitative meta-synthesis. *Ont Health Technol Assess Ser*, 13, 1-33.
- BYWOOD, P. T., KATTERL, R. & LUNNAY, B. K. 2011. Disparities in primary health care utilisation: Who are the disadvantaged groups? How are they disadvantaged? What interventions work? *PHCRIS Policy Issue Review. Primary Health Care Research & Information Service*. Available at <http://www.phcris.org.au/>
- CAREY, T. A., WAKERMAN, J., HUMPHREYS, J. S., BUYKX, P. & LINDEMAN, M. 2013. What primary health care services should residents of rural and remote Australia be able to access? A systematic review of "core" primary health care services. *BMC Health Serv Res*, 13, 178.
- CARPENTER, A., ISLAM, M. M., YEN, L. & MCRAE, I. 2015. Affordability of out-of-pocket health care expenses among older Australians. *Health Policy*, 119, 907-14.
- COMINO, E. J., DAVIES, G. P., KRASSTEV, Y., HAAS, M., CHRISTL, B., FURLER, J., RAYMONT, A. & HARRIS, M. F. 2012. A systematic review of interventions to enhance access to best practice primary health care for chronic disease management, prevention and episodic care. *BMC Health Serv Res*, 12, 415.
- DALZIEL, K. M. & RICHARDSON, J. R. 2015. With talk of Medicare reform, let's not neglect vertical equity. *Med J Aust*, 202, 292-3.
- DAWSON, A. J., NKOWANE, A. M. & WHELAN, A. 2015. Approaches to improving the contribution of the nursing and midwifery workforce to increasing universal access to primary health care for vulnerable populations: A systematic review. *Hum Resour Health*, 13, 97.
- FREED, G. L., BINGHAM, A., ALLEN, A. R., FREED, M., SANCI, L. A. & SPIKE, N. 2015. Actual availability of general practice appointments for mildly ill children. *Med J Aust*, 203, 145, 145e 1-5.
- GIBSON, O. R. & SEGAL, L. 2015. Limited evidence to assess the impact of primary health care system or service level attributes on health outcomes of Indigenous people with type 2 diabetes: A systematic review. *BMC Health Serv Res*, 15, 154.
- GORIS, J., KOMARIC, N., GUANDALINI, A., FRANCIS, D. & HAWES, E. 2013. Effectiveness of multicultural health workers in chronic disease prevention and self-management in culturally and linguistically diverse populations: A systematic literature review. *Aust J Prim Health*, 19, 14-37.
- HARRIS, M. F. 2012. Who gets the care in Medicare? *Med J Aust*, 197, 598-9.
- ISLAM, M. M., TOPP, L., DAY, C. A., DAWSON, A. & CONIGRAVE, K. M. 2012. The accessibility, acceptability, health impact and cost implications of primary healthcare outlets that target injecting drug users: A narrative synthesis of literature. *Int J Drug Policy*, 23, 94-102.
- JOSHI, C., RUSSELL, G., CHENG, I. H., KAY, M., POTTIE, K., ALSTON, M., SMITH, M., CHAN, B., VASI, S., LO, W., WAHIDI, S. S. & HARRIS, M. F. 2013. A narrative synthesis of the impact of primary health care delivery models for refugees in resettlement countries on access, quality and coordination. *Int J Equity Health*, 12, 88.

- KATTERL, R. 2011. Socioeconomic status and accessibility to health care services in Australia. RESEARCH ROUNDup, Primary Health Care Research & Information Service. Available at <http://www.phcris.org.au/>
- KATTERL, R., ANIKEEVA, O., BUTLER, C., BROWN, L., SMITH, B. & BYWOOD, P. T. 2012. Potentially avoidable hospitalisations in Australia: Causes for hospitalisations and primary health care interventions. *Policy Issue Review*. Primary Health Care Research & Information Service. Available at <http://www.phcris.org.au/>
- KEMP, A., PREEN, D. B., GLOVER, J., SEMMENS, J. & ROUGHHEAD, E. E. 2013. Impact of cost of medicines for chronic conditions on low income households in Australia. *J Health Serv Res Policy*, 18, 21-7.
- LEVESQUE, J. F., HARRIS, M. F. & RUSSELL, G. 2013. Patient-centred access to health care: Conceptualising access at the interface of health systems and populations. *Int J Equity Health*, 12, 18.
- NATIONAL HEALTH PERFORMANCE AUTHORITY. 2015. *Australians' experiences with access to health care in 2013-14* [Online]. National Health Performance Authority. Available: <http://www.myhealthycommunities.gov.au/our-reports/australians-experiences-with-primary-health-care-updates/october-2015> [Accessed 18/02/2016 2016].
- ORGANISATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT, O. 2015. OECD Health Statistics 2015 - Frequently Requested Data. In: OECD HEALTH STATISTICS (ed.). www.oecd.org
- OSBORN, R., MOULDS, D., SCHNEIDER, E. C., DOTY, M. M., SQUIRES, D. & SARNAK, D. O. 2015. Primary care physicians in ten countries report challenges caring for patients with complex health needs. *Health Aff (Millwood)*, 34, 2104-12.
- OSBORN, R., MOULDS, D., SQUIRES, D., DOTY, M. M. & ANDERSON, C. 2014. International survey of older adults finds shortcomings in access, coordination, and patient-centered care. *Health Aff (Millwood)*, 33, 2247-55.
- REEVE, C., HUMPHREYS, J., WAKERMAN, J., CARTER, M., CARROLL, V. & REEVE, D. 2015. Strengthening primary health care: achieving health gains in a remote region of Australia. *Med J Aust*, 202, 483-7.
- RUSSELL, G., HARRIS, M., CHENG, I.-H., KAY, M., VASI, S., JOSHI, C., CHAN, B., LO, W., WAHIDI, S. & ADVOCAT, J. 2013. Coordinated primary health care for refugees: A best practice framework for Australia. *Southern Academic Primary Care Research Unit: Melbourne*. Available at <http://files.aphcri.anu.edu.au/reports/Grant%20RUSSELLFinal%20Report.pdf>
- SEARLES, A., DORAN, E., FAUNCE, T. A. & HENRY, D. 2013. The affordability of prescription medicines in Australia: Are copayments and safety net thresholds too high? *Aust Health Rev*, 37, 32-40.
- SHEA, B. J., GRIMSHAW, J. M., WELLS, G. A., BOERS, M., ANDERSSON, N., HAMEL, C., PORTER, A. C., TUGWELL, P., MOHER, D. & BOUTER, L. M. 2007. Development of AMSTAR: A measurement tool to assess the methodological quality of systematic reviews. *BMC Medical Research Methodology*, 7, 1-7.
- VAN DEN BERG, M. J., VAN LOENEN, T. & WESTERT, G. P. 2016. Accessible and continuous primary care may help reduce rates of emergency department use. An international survey in 34 countries. *Fam Pract*, 33, 42-50.

Appendix

Table 1 Summary of included systematic reviews and evaluation studies

Reference	Study aim	Findings	Number of included studies/ Applicability	AMSTAR Quality rating	Citations (Google scholar February 2016)
(Bellamy et al., 2015)	To report on findings of research exploring the barriers and/or facilitators of access to medication and pharmacy services for resettled refugees in Australia, as well as other developed resettlement countries.	From the limited available research, overall barriers to access include language and cultural barriers, and difficulty navigating the health care system. Five of the included studies were qualitative studies.	9 articles; 7 studies were from USA; 1 study from Australia with a focus on refugees from Sudan, Burundi, Congo, Burma, Afghanistan and Bhutan.	8	0
(Brundisini et al., 2013)	To investigate what advantages and disadvantages rural patients experience when accessing both rural and distant health care.	Barriers to access included geographic distance from services, availability of health care professionals, and rural culture (importance of community and familiarity)	12 qualitative studies were included; none were from Australia	NA	17
(Carey et al., 2013)	To identify “core” primary health care services that should be accessible for rural and remote Australia	Studies were so heterogeneous that it was not possible to define a definitive set of core services.	19 studies; most appear to be from Australia or Canada	6	11
(Comino et al., 2012)	To identify effective interventions to enhance access to best practice PHC for people with or at risk for chronic disease	Approaches to improving access reflected between country differences in health system. For Australia interventions addressed	75 studies; including 25 from Australia, 25 US, and 15 UK	7	20

		affordability, availability, and acceptability within the Medicare system. Successful strategies targeted three areas: 1.system level change/service delivery policy/incentives, 2. Practice level reorganization based on multidisciplinary care, 3.community level programmes taking services and education to patients.			
(Dawson et al., 2015)	To identify nursing and midwifery policy, staffing, education and training interventions and collaborative efforts and strategies within the primary health care setting that have been found to improve the quantity, quality and relevance of the nursing and midwifery workforce that have ultimately led to health improvements.	Numerous programmes were identified that improved access to PHC through nurse involvement, particularly where they collaborated with GPs and culturally sensitive community health workers. Successful initiatives had in common long-term investments in infrastructure, training and improvement of working conditions of the health workforce, as well as support for expanded roles and responsibilities of nurses.	36 articles; 11 from low- and middle-income countries, 25 from high income.	4	0
(Gibson and Segal, 2015)	To assess the impact of PHC initiatives on	Multifaceted strategies were more successful at	13 studies; 4 programmes were located in	6	0

	health outcomes of Indigenous people with type 2 diabetes in Australia, NZ, Canada and the US.	achieving improvement in health. Where Australian programmes generally invested in the ability of clinical systems to manage chronic diseases, efforts in NZ aimed to increase Maori people's access to services.	Australia and 2 in NZ		
(Goris et al., 2013)	To provide an assessment of the best available evidence regarding the effectiveness of Multicultural health workers (MHWs) in health promotion and disease management in CALD populations and provide a foundation for policy development in Australia.	Despite considerable heterogeneity between studies, MHWs facilitated appropriate use of health care services including increased screening and reduced emergency visits. Generally where described MHWs resembled their clients in terms of ethnicity, race, and socioeconomic background.	39 primary studies; most studies were set in the US, no Australian studies were included.	9	8
(Islam et al., 2012)	To outline operational models of injecting drug users (IDU)-targeted PHC and assess the accessibility and acceptability of these services to the target population; synthesize the findings from evaluations of these PHC with respect to their impact on health outcomes, cost implications and	IDU-targeted PHC centres are likely to increase the accessibility and acceptability of PHC to this population. An important element of this is provision of non-judgemental and cost-free services under a harm reduction framework. However, support is required to conduct more rigorous evaluation. Cost has not been evaluated,	35 articles covering 22 programmes; including 5 Australian	5	42

	operational challenges.	but is likely to be offset by reported reductions in ED visits.			
(Joshi et al., 2013)	Investigate PHC service delivery models for refugee populations and the impact on access, coordination and quality of care in countries of resettlement.	Components of successful programmes included: case management strategies, multidisciplinary staff, use of interpreters and bilingual staff, no-cost or low-cost services to consumers, outreach services (many in refugees' homes), free transport for appointments, longer consultation hours, patient advocacy (increased access to housing, social security and medical services), help with navigating health system, and use of gender sensitive providers.	25 studies; 15 Australian	6	5
(Reeve et al., 2015)	Evaluation study to assess how changes in the Fitzroy Valley model of service delivery impacted on use of primary care and to determine what the resultant health outcomes were for the population.	Following reorganisation toward a shared governance model of partnership between the government health services, community controlled health services and primary health care services there was a substantial increase in access to primary care. Incentives to undertake Indigenous health		NA	2

		checks and care plans under Medicare billing was a strong driver of increased access.			
(Russell et al., 2013)	To answer the following: What evaluated models of providing PHC to refugees in countries of resettlement have been described? and What is the impact of these models of primary health care on a) access to care b) coordination of care and c) quality of care for the refugees in countries of resettlement?	Case management is broadly successful in improving access, but requires investment and specialised training. Use of interpreters and bilingual workers is an essential component of improved access, but should not rely on family members or informal interpreters as this is likely to impact on the quality of care.	25 models described, but only 17 addressed access to care. In total 15 of the articles were based on Australian evaluations.	6	4

NA= not applicable