Interpreter Engagement in General Practice in Australia

May 2020





This report was produced in collaboration with



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Executive Summary

The 2016 census revealed that nearly half (49 per cent) of Australians were born overseas (first generation Australian) or have one or both parents born overseas (second generation Australian). More than one fifth (21 per cent) of Australians speak a language other than English at home.¹ In this context, interactions between clinicians and people from culturally diverse migrant and refugee backgrounds are increasingly common. Effective communication is key; for those who are linguistically diverse, receiving interpretation during health consultations is essential.

This report investigates the potential benefits, costs and disincentives involved in engaging interpreters, and the risks of failing to do so, with an emphasis on general practice settings.ⁱ It establishes recommendations to facilitate both enhanced interpreter engagement and further research into the value of investing in interpreter services uptake in general practice to improve health access, experiences and outcomes for all Australians.

Cost-benefit research of interpreter engagement for language discordant health care consultations is lacking in general practice and the primary care setting more broadly, especially in Australia. Yet research suggests that interpreter engagement in general practice will become increasingly important as measures are taken to improve health access, experiences and outcomes for patients from culturally and linguistically diverse backgrounds.

Clear and effective communication underpins every aspect of good clinical practice and is consistent with the Royal Australian College of General Practitioners (RACGP) General Practice Standards and other relevant standards across the health sector.

Quality of communication in language discordant consultations is largely dependent on the quality of interpretation. Despite the government-subsidised Free Interpreting Service (FIS)—which makes interpreters available at no cost to eligible patients —interpreter engagement remains substandard. With high levels of engagement of workers with bilingual skills or personally involved individuals such as family members and friends, ensuring safe and effective patient-clinician communication represents a significant public health challenge.

Adverse outcomes arising in situations of language discordance and the absence of appropriate interpreter services in hospital settings affect length of stay, high hospitalisation and readmissions rates, greater use of hospital resources and defective informed consent. In general practice, adverse outcomes include poor patient satisfaction and experience; poor quality of care; administrative costs and inefficiencies; prolonged and additional examinations; and issues around escalation of care, including risk of malpractice.

i Interpreter means a practitioner, conveying spoken or signed information from one language into another language, who has obtained certification issued by the National Accreditation Authority for Translators and Interpreters (NAATI)—the national body responsible for the translation and interpreting industry through its certification system for translators and interpreters.

Meanwhile, the potential benefits of promoting strong communication through interpreter engagement can offset the costs of augmenting interpreter services across the health system. Financial savings from avoided hospital readmissions, more efficient consultations and mitigation of medico-legal risks around duty of care, use of medication and informed consent can be substantial. Quality of care increases, while patients are more satisfied with and have more trust in the health system. Patients have better comprehension of medical instructions and are more likely to receive a lasting solution to their condition when they receive care in their preferred language. These improvements contribute to increased equity of health care and health outcomes between language discordant patients (LDPs) and language concordant patients (LCPs).

Based on the research and clinician perspectives reviewed, a number of possible recommendations were developed. Of these, it is recommended that a Practice Incentives Program (PIP) payment be developed to incentivise interpreter engagement in general practice. Additional recommendations include amending telephone interpreter service delivery and promoting interpreter-friendly environments. These recommendations are particularly timely in the context of ongoing efforts to enhance interpreter standards, including through the introduction of a Specialist (Health) certification for interpreters by the National Accreditation Authority for Translators and Interpreters (NAATI).

Further research into the costs and benefits of augmented interpreter services in general practice and the primary care setting more broadly is also necessary. Models for future research are explored.

Overview

This report reviews literature concerning interpreter engagement for consultations with language discordant patients (LDPs) patients who are not proficient in the language their clinicians provide services in.

Specifically, this review is interested in the potential benefits, costs and disincentives involved in engaging interpreters, and the risks of failing to do so, with an emphasis on general practice settings. While cost-benefit analysis of interpreter engagement for LDP consultations is scarce, especially in general practice (GP) and primary care settings more broadly, this report establishes recommendations to facilitate both enhanced interpreter engagement and further research into the value of investing in interpreter services to improve health access, experiences and outcomes for all Australians.

Scope

This report identifies and reviews literature on LDP consultations in health care, taking note of patient experiences; physician experiences; health and health care outcomes; health care equity; patterns of access to and use of health care and interpreter services among LDPs; the costs, benefits and risks associated with different types of interpretation; perception of LDPs and interpreter services; and processes of engaging interpreters, including identifying the barriers and disincentives clinicians experience when working with interpreters. This report highlights the paucity of relevant investigations into the costs and benefits of improving communication in language discordant consultations.² Considering their greater relevance to the present inquiry, priority was given to the identification and review of studies in the Australian context. US research is dominant in this literature, however, with most studies on this subject and half of those identified for this review being conducted in the United States.³ Other studies reviewed for this report come from diverse locations, including the Netherlands, New Zealand, South Africa and Switzerland.

The scope of clinical settings studied in literature on LDP consultations is also skewed. Much research is conducted in hospital settings; nearly half of the studies reviewed were set either in emergency departments or in general in-patient services. Less than 20 percent of the studies reviewed concern primary care settings, and only half of these were conducted specifically in general practice.

The relative scarcity of studies in primary care and general practice contexts may be attributed to the fact that patients in hospital settings are generally in more dire need of health care, and the consequent perception that hospitalised LDPs are in greater need of interpreter services, leading to a concentration of research in hospitals.⁴ In further support of this focus on language discordance in hospital settings, it should be noted that patients from migrant and refugee backgrounds delay health care, have a lower uptake of preventative services and have poorer health as a population as compared to language concordant patients (LCPs). These trends both indicate that LDP access to and uptake of primary care is poor and contribute to a disproportionate reliance on hospital services within the LDP population.⁵

Studies in the United States indicate, however, that LDPs use less health care than the LCP population in every category of health service, from hospitals to primary care.⁶ As much as the concentration of research in hospital settings reflects the urgency and disproportionate uptake of care provided in this context, it is therefore also symptomatic of the barriers that compromise health access, experiences and outcomes for LDPs.

Yet when interpreter services are more accessible and more widely used, the frequency of hospital care decreases and uptake of primary care among LDPs improves.⁷ It follows that as the provision of health care and interpreter services for this population improve in Australia, engagement of interpreter services in general practice will become increasingly important.

Methodology

The report is informed by the following activities:

- A review of literature on LDP health care and on the costs, benefits and use of interpreter services in LDP consultations
- Consultation with Australian general practitioners regarding their experiences of providing health care and engaging interpreters in LDP consultations
- Collaboration with a primary health care provider—Inala Primary Care—regarding the impact of interpreter service delivery on their practice

As the following sections of this report discuss, these activities revealed both a need for further research into the costs, benefits and use of interpreter services in GP settings, as well as a need to promote and support interpreter engagement in Australian general practice. Building on this foundation, the final section makes recommendations for improving interpreter service delivery and uptake for language discordant consultations in Australian primary care and general practice in particular.

Context: communication in health care

Clear and effective communication underpins every aspect of good clinical practice and is consistent with the Royal Australian College of General Practitioners (RACGP) General Practice Standards and other relevant standards across the health sector. Strong clinician-patient communication is linked with improved experiences on both sides and with positive health outcomes for patients. Ineffective communication can result in limited, delayed, inefficient and more costly health care, as well as negatively impacting patients' understanding of and trust in the health care system.

Quality and safety of communication

Quality of communication in language discordant consultations is largely dependent on the quality of interpretation. Despite the government-subsidised Free Interpreting Service (FIS)—which makes interpreters available at no cost to patients or general practices-interpreter engagement remains substandard. Patients bring family or friends to facilitate communication for half of language discordant clinical consultations in Australia.8 One study at a New Zealand clinic with the highest rate of interpreter engagement in the nation nevertheless recorded that 83 per cent of drop-in consultations engaged personally involved individuals to facilitate communication.9

While interviews with LDPs suggest people requiring interpreter services trust in the ability and fidelity of personally involved individuals to facilitate communication,¹⁰ other studies suggest this practice of 'informal interpretation' can obscure communication and lead to undesirable health outcomes.¹¹ Similarly, clinicians raise concerns around the presence of personally involved individuals in consultations on issues related to mental health, contraception, domestic violence and other sensitive matters.

Engagement of interpreters, on the other hand, is widely recommended for optimal clinician-patient communication.¹² The various forms of professional interpreter services—telephone, video or face-to-face mean interpretation is broadly accessible and can be flexibly applied across different regional and health care contexts.¹³

Risks and Costs

The failure to ensure appropriate interpreter services are provided in consultations with LDPs correlates with negative outcomes, including:

- Medico-legal risks
- Inefficiencies in clinical processes
- Financial and time costs
- Adverse health outcomes
- Poor clinician and patient experiences.

The sections below discuss how the risks and costs of poor communication and failure to engage interpreters manifest in hospital and primary care settings.

Hospital settings

Adverse outcomes arising in situations of language discordance and the absence of appropriate interpreter services in hospital settings affect length of stay, high hospitalisation and readmissions rates, greater use of hospital resources and defective informed consent.

Regarding length of stay, brief hospital stays may indicate insufficient care. One study of families of low-birth weight children shows that length of stay for language discordant families was half that for language concordant families, indicating a failure to ensure equitable health care and access across the two groups.¹⁴

On the other hand, extended length of stay is often associated with inefficient communication and care.

Clinicians report difficulties in establishing medical histories for LDPs, contributing to prolonged consultations.¹⁵ Focus groups with clinicians in an Australian hospital confirmed that poor communication around language discordant patients' symptoms continued throughout the hospitalisation period, leading to duplication of effort as clinicians were required to reassess patients.¹⁶

These inefficiencies in clinical processes extend to use of hospital resources. With language barriers potentially obstructing communication of patients' symptoms or medical history, practitioners are more cautious in their decision-making and rely on expensive and time-consuming diagnostic tests.¹⁷ Such caution in the face of language barriers is common among hospital clinicians caring for LDPs.¹⁸

Clinical caution also manifests in the decision to hospitalise a patient. While hospitalisation is a clinical decision, disproportionately high rates of hospitalisation within the LDP population may therefore reflect clinicians' efforts to compensate for poor communication rather than patterns of LDP use of or access to health care resources.¹⁹ Hospitalisation may indicate more intense medical care for patients and greater financial output and use of resources for service providers. Language discordance without appropriate interpretation may also result in increased readmission rates. Hospital readmission may indicate a poor quality of patient care, while also attracting significant financial costs. Analysis of costs and savings associated with interpreter engagement in hospitals consistently calculate readmission as one of the most significant expenses in treatment of hospitalised LDPs.²⁰

Finally, medico-legal risks are significantly increased when interpreter services are not engaged in situations of language discordance. A primary concern is gaining proper informed consent. One study in Australian hospitals found that even LDPs facing complex health interactions—including preparing for and receiving information around surgery-were not guaranteed to receive interpreter services.²¹ Another study surveyed patients at a dedicated refugee health service in Australia to ascertain the frequency of adverse outcomes from failing to engage an interpreter; 62.5 per cent of adverse incidents involved obtaining adequate informed consent.22

Case Study

A language-discordant patient presented to Inala Primary Care (IPC) with symptoms of appendicitis. IPC arranged for the patient to be immediately taken via ambulance to hospital. After a hospital assessment confirmed appendicitis, the patient was prepped for surgery. Throughout the patient's time in hospital, no interpreters were engaged to explain the diagnosis and recommended action or to seek consent. Upon transferal to the surgical theatre, the patient discharged against medical advice due to the lack of this essential information and consequent fear of the recommended procedure. The following day the hospital contacted IPC, who in turn encouraged the patient to return to the practice. IPC staff confirmed that patient's condition had deteriorated and instructed the patient and family of the need for surgery, to which they agreed. IPC organised an ambulance and the patient's surgery was completed upon their second presentation to hospital.

Aside from consent, poor communication in hospital settings correlates with failure to understand and act on medical advice, including adherence to post-discharge appointments and use of medication.²³ Considering these risks, poor communication contributes to over 70 percent of allegations of malpractice, leading to significant monetary, time and administrative costs.²⁴ Research suggests that failure to provide interpreter services is the primary factor in one in 40 malpractice claims.²⁵

Primary care and general practice

The risks and costs of failing to engage interpreters for language discordant consultations in primary care are under-researched. This is a significant deficiency considering the frequency of interpreter engagement in general practice. Studies suggest that interpreters are less likely to be engaged in less complex medical interactions, like GP consultations.²⁶ In Australia, low uptake of governmentsubsidised interpreter services through the Free Interpreting Service (FIS) corroborates this undesirable trend in Australian general practice.²⁷

Yet, as in hospital settings, ensuring strong patient-clinician communication is essential in primary care and general practice. Patient experience is bound up with quality of communication; where communication and patient experience is poor, LDPs may lack trust in their health care providers and in the broader health system.²⁸

A study of culturally and linguistically diverse health care consumers in a rural Australian health system revealed that patients lacked the information and support they needed including interpreter services—to navigate the Australian health system. This is further complicated by low levels of health literacy and health system literacy. Additionally, these patients encountered resistance to their traditional practices around health and wellbeing; clinicians' dismissal of these practices further alienated the patients, contributing to their withdrawal from primary care.²⁹

Alongside implications for access to and quality of patient care, failure to engage interpreters for language discordant consultations in general practice may generate administrative costs and inefficiencies in clinical processes. Poor communication from failing to provide interpreter services may result in additional demands on clinicians and non-clinical staff, including the provision of extra consultation services such as making phone calls or writing letters to explain medical instructions.³⁰ While clinicians with bilingual skills may be engaged to resolve language discordance,³¹ some research suggests that this may result in inefficiencies and time costs as these clinicians are taken from their standard work.³² Physicians with bilingual skills have also reported discomfort around facilitating communication as their bilingual knowledge of medical terminology may be limited.³³

One survey of primary care physicians (general practitioners and paediatricians) identified further sources of financial costs resulting from failure to engage an interpreter for LDP consultations including prolonged consultations; additional examinations; difficulties determining patient history and symptoms; and referring patients to hospital and emergency services as a precaution when faced with poor communication.³⁴

In other cases, when general practitioners have referred LDPs to emergency care upon suspecting a serious and urgent health condition, communication barriers have impeded patients' abilities to follow clinical instructions, with dire consequences. In one case from Australia, language discordance led to a chain of miscommunication and failure to follow medical advice, resulting in patient fatality;³⁵ similar cases have occurred elsewhere with significant financial costs and risks of malpractice.³⁶

Case Study

During an initial screening for a newly arrived language-discordant refugee, IPC clinicians identified major dental problems and referred the patient for further care. Without engaging an interpreter to explain the patient's condition or gain consent, the dentist proceeded to extract all of the patient's teeth. The patient reported back to IPC in extreme distress and was later diagnosed with ongoing mental health issues associated with the trauma of this procedure. The matter led to a formal complaint and an investigation which is still underway.

Offsets and benefits

While the risks and costs of failing to provide appropriate interpreter services for LDPs are significant, the potential benefits of promoting strong communication through interpreter engagement can offset the costs of augmenting interpreter services.

Financial savings from avoided hospital readmissions, more efficient consultations and mitigation of medico-legal risks around duty of care, use of medication and informed consent are potentially substantial. Quality of care has been shown to increase when communication is improved. LDPs are more satisfied with and trust more in the health system, have better comprehension of medical instructions and are more likely to receive a lasting solution to their condition when they receive health care in their preferred language.

These improvements contribute to increased equity of health care and health outcomes between LDPs and LCPs.

Research also suggests that the improvement of communication and interpreter engagement has reinforcing effects. Supporting a clinical environment that is receptive to interpreters will increase access to and uptake of interpretation services, accelerating the fulfillment of these benefits.

Financial

Although improving access to and engagement of interpreter services entails financial investment, improving communication can realise sufficient cost-savings to offset the expenses of augmented interpretation.

Several studies tracking the benefits of interpreter engagement in hospitals find that increased access to and engagement of interpreters decreased rates of hospitalisation, readmission and missed appointments, and reduced excess use of hospital resources. One intervention employing two full-time bilingual 'navigators' for patients and families at a children's hospital in the United States reported a \$6 USD return for every \$1 invested; over two years, the intervention saved over \$1 million.³⁸

A separate intervention to install dualhandset interpreter telephones in every patient room of a US hospital ward, providing 24/7 access to interpreter services, estimated a net savings of \$161,404 USD per month.39 Critically, these interventions were effective not only because they improved the ease of interpreter engagement, thereby improving communication; both interventions also involved engagement with various clinical and non-clinical staff to promote positive practices around identifying the need for, engaging and working with interpreters. Other research similarly emphasises the need to pair augmented interpreter services with training for relevant staff.40

While some research finds that LDPs receiving interpreter services use more primary care resources than LDPs not receiving interpreter services, the literature notes this as a benefit. It indicates both improved quality of care and eventual financial savings since LDPs receiving interpreter services are more likely to receive a lasting solution to ailments and are therefore less likely to seek recurrent health advice.⁴¹ There are flow-on financial savings from reduced reliance on hospital care, which is more expensive per episode of care than primary care.

Relatedly, research emphasises that the financial costs of improving access to and uptake of interpreter services are a short-term cost worthy of expenditure given the associated long-term benefits.⁴² While evidence suggests interpreter services become more cost-effective with time,⁴³ the long-term benefits also extend to quality of care.

Quality of care

Engagement of interpreters for language discordant consultations has broad benefits for quality of care across the health system, clinician and individual levels.

At the health system level, a unified national strategy is most effective for maximising health care quality, efficacy and equity.⁴⁴ Achieving health and health care equity is an imperative for medical duty of care.⁴⁵ Various studies assert that ensuring clear communication equal to that received by language concordant patients is a legal obligation for meeting standards of non-discrimination.⁴⁶

Realising improved health outcomes through the provision of interpreter services also narrows the disparities between LDP and LCP health. Research indicates that interpretation reduces disparities regarding length of consultations,⁴⁷ patient satisfaction⁴⁸, rates of prescriptions written and filled⁴⁹, uptake of preventative services⁵⁰, access to health care⁵¹ and use of emergency services.⁵²

Importantly, the reduction in these disparities is not 'correcting' overuse of health care services by LDPs. Research suggests that any convictions that LDPs represent a disproportionate burden on the health care sector are unfounded.⁵³

For clinicians, improved communication corresponds with greater confidence in treating patients, improved interpersonal care and higher satisfaction. LDP assessments facilitated by an interpreter are more accurate and complete, and patients receive and fill more prescriptions. Furthermore, LDPs receiving interpreter services are more able to understand and follow medical instructions, including adherence to appointments and appropriate use of medication, representing more effective health care provision and communication by clinicians.

These benefits equally represent improved health outcomes for LDPs. By improving communication, interpreter services have been shown to achieve satisfaction and quality of care for LDPs equal to that of LCPs.⁵⁴ Patients receiving interpreter services are more likely to access preventative health care services, with significant impacts for the population health of people with language barriers. As discussed above, those who face the possibility of language discordant consultations—primary among them migrants and refugees—experience poorer health outcomes. Interpreter services help LDPs receive a lasting and effective health care solution earlier, improving not only the efficacy of the health system, but the quality and equity of health care for all Australians.

Disincentives and barriers in general practice

Barriers and disincentives to working with interpreters that clinicians face in general practice include financial concerns, systemic and procedural issues and considerations around accessibility to interpreter services. Literature highlights these trends in health care settings around the world, while consultations conducted with local general practitioners confirm that these disincentives apply in Australian general practice.

A foremost concern among general practice clinicians when engaging interpreters is responsibility for the financial costs of interpreter services. Beyond the direct expense of interpreter fees (which in Australia are covered through the Free Interpreting Service), related factors contribute to potential financial burdens.

For example, interpreter consultations require more time of clinicians, representing a drain on their resources when this extra time spent is not remunerated.

Similar time-intensive factors of working with interpreters that contribute to financial concerns include ascertaining patients' previous health assessments and repeating tests where these are unclear; explaining Western health concepts and practices; and administrative activities including additional consultation calls and letters to explain or follow-up health care advice.⁵⁶

Systemic constraints also appear to impede general practice clinicians' abilities to work effectively with interpreters. Appointment structures do not accommodate the prolonged commitment required to conduct an interpreted consultation. Focus groups with GPs in Victoria revealed that doctors tend to bulk-bill interpreted consultations as a result, but practitioners reflected that this practice is not financially sustainable.⁵⁷

Together, these systemic and financial concerns create a unique challenge for improving interpreter engagement in general practice. Although interpreter engagement can realise cost-savings at the systemic level, for the individual GP practice it may represent a disproportionate financial burden—as with the case of Inala Primary Care discussed below.

At the systemic level, general practice settings are less costly per occasion of service (OOS) as compared to those in hospital settings; this means that avoided hospital OOSs can offset the expense of increased primary care OOSs across the system, resulting in lower overall costs. Yet at the practice level, the GP bulk-billing model means that every interpreted consultation for an LDP takes longer and generates less revenue than a LCP OOS for equivalent health needs, which can be conducted in less time.

The challenge for the Australian health system is to address the challenges and risks of poor communication for LDPs in a way that realises systemic cost-savings and improvement of care without exacerbating or failing to address the burden on individual general practices in areas of high cultural and linguistic diversity.

Consultation with Australian GPs conducted for this report further revealed that processes for engaging interpreters are lacking. Doctors highlighted that the extensive recordings delivered when they use telephone interpreter services as part of FIS make the process unnecessarily lengthy and therefore onerous. Literature supports these findings; practitioners appear to widely perceive interpreter engagement as time-costly, onerous and—in one study—as an ineffective way of relaying information.⁵⁸

Such perceptions around the inconvenience of engaging and working with interpreters represent another systemic issue that impedes effective and timely engagement of interpreter services. Of particular importance is identifying the need for—and then booking—interpreters sooner rather than later where feasible given a congested general practice schedule.

It is essential in this respect to promote an interpreter-friendly environment in health care practices, and particularly to promote positive practices among non-clinical staff. This might involve empowering and building capacity of non-clinical staff to identify the need for interpreter services. Research suggests that receptionists tend to defer decision-making to practitioners.⁵⁹

Promoting an interpreter-friendly environment also requires training and education on effective communication, cultural sensitivity and best-practice in LDP care. Knowing when an interpreter is necessary, what mode of service delivery is most appropriate in the given circumstances and how to work with the interpreter and the patient to facilitate a positive health care experience are all essential for an effective LDP consultation. Non-clinical staff report believing that LDPs preferred having personally involved individuals facilitate communication and therefore did not book a professional interpreter.⁶⁰ This suggests a lack of awareness about the limited appropriateness of such an approach and the imperative to ensure adequate communication. Training and education should aim to mitigate such circumstances and encourage interpreter engagement.

Finally, there is conflicting evidence around the relationship between accessibility of interpreter services and increased engagement. Interventions in hospitals on this subject indicate that increased ease of access to interpreter services correlates with improved rates of interpreter provision and improved experiences and outcomes for LDPs. Yet in Australia, the governmentfunded Free Interpreting Service is used in as little as 1 percent of LDP consultations, according to one study⁶²; national subsidised interpreter services elsewhere report similarly low levels of uptake.⁶³ These findings suggest that making interpreter services accessible is not enough to promote interpreter engagement, and reaffirm that training and incentivisation are necessary covariates in the improvement of interpreter engagement, patient-clinician communication and LDP health care.

Together, the barriers and disincentives detailed above suggest that LDP consultations may be more complex and more demanding than LCP consultations;⁶⁴ the GP consultations conducted for this project confirm these findings. While complexity does not excuse poor communication, interpreter engagement should be supported and made more viable in Australian general practice.

Case study: Inala Primary Care

Inala Primary Care (IPC) is one of Queensland's largest users of interpreters through the FIS and accounts for over 50 per cent of interpreter engagements through TIS National in the 4077 postcode. Inala is a primary settlement location for new arrivals to Australia and in this diverse catchment, the frequency of contact with LDPs is rising.

Cost and disincentive analysis

IPC has an active patient population of 5000 patients, who cumulatively nominate 148 ethnicities in patient enrolment documentation.

This demographic reality generates a substantial burden on the practice in terms of financial and clinical stress. To illustrate these challenges, IPC recently issued the Report of Professional (TIS) Interpreter Usage, including analysis of the financial costs and disincentives experienced in engaging interpreters and providing care to LDPs.

IPC engages interpreters at much higher rates than the national average. In 2017/18, IPC engaged interpreter services for 3012 consultations, representing 8.1 per cent of total appointments; this increased to 5442 interpreted consultations, or 9.6 per cent of appointments, in 2018/19. More recent data suggests this growth trajectory is continuing, with the October – December 2019 quarter reporting that interpreters were engaged for more than 13 per cent of all consultations.

Financial burden is a primary concern for IPC in delivering this care and managing growth in interpreter use. From an administrative perspective, data collected during an audit of interpreter engagement at Inala in 2017 revealed it took an average of 3.79 minutes to acquire an interpreter, or 30.24 hours of administrative time per month. This time alone represents a cost of \$10,200 per year. As the additional time required of administrative staff to make reminder calls or return to their previous work is not included, IPC notes this is a conservative estimate. The Medicare billing scheme is additionally problematic. When interpreters are engaged or patient health literacy is low, clinicians spend additional time with patients. General practice Medicare Items include time-based payments that incentivise efficiency by offering a reduced rebate per minute for longer consultations. This means longer consultations are less income-effective for the provider and practice. The most cost-effective consultation durations for Medicare billing are either under 10 minutes or for 22 minutes. When engaging interpreters, it is nearly impossible to deliver care in either time frame. In 2017/18, IPC interpreted consultations averaged 26.83 minutes; in 2018/19 this average rose to 36.99 minutes.

Non-attendance represents another significant financial cost as well as a disincentive for doctors to work in catchment areas with high nonattendance rates. General practice works on a volume basis, billing Medicare for each occasion of service.

There is no block funding for salaries or streams of care. Medicare funds are generally distributed to the doctors who bill the item numbers with a percentage retained by the practice to pay for nurses and overhead costs.

When patients do not attend, revenue that contributes to paying these clinical staff is lost. IPC estimated that non-attendance results in 9 hours of unfilled medical time each week, representing a cost of \$63,180 per year. Faced with the financial instability of the fee-for-service model in an area of high non-attendance, most of the IPC clinical team have insisted on a salaried model; this means the practice assumes more financial risk when patients do not attend.

This financial loss is compounded by the opportunity costs of IPC delivering fewer standard-length consultations. By delivering an exceptionally high rate of interpreted consultations, the proportion of standard consultations, which attract more revenue per minute, is lower than average.

Similarly, the IPC patient profile is skewed toward people from migrant and refugee backgrounds. Irregular influxes of people from migrant and refugee backgrounds settling in Inala and the consequent flow of language discordant patients into the IPC practice reduces access and satisfaction for existing patients. This detracts from IPC's appeal as a community general practice, instead contributing to the perception that IPC is a specialist refugee care clinic for which there is no associated funding. This disparity increases the vulnerability of IPC to financial risk and costs. While consultants recommended that IPC refuse new LDPs to 'rebalance' the patient profile, practice staff have refused this option for legal and ethical reasons.

Ultimately, IPC estimates the costs of interpreter services use during 2018/19 to total \$368,768.

Interpreter engagement for Spanish-speaking patients

Following conflicts in South America, considerable communities of Spanish speaking refugees settled in Australia during the 1970s and 1980s. Despite decades of residence, many in the Spanish speaking community in Inala and surrounding suburbs lack the confidence to undertake—or simply book—a general practice consultation in English. This population and the associated challenge of communication in healthcare has expanded in recent years as students, professionals and their families migrated from South and Central America to Australia.

IPC employed a team of bilingual Spanishspeaking clinicians to serve this population for 12 years. Over time, this model became unsustainable and the practice now relies on interpreters to meet the communication needs of its Spanish-speaking LDPs. Despite this shift, even patients who have moved away from the area immediately surrounding Inala continue to seek care from IPC. Nearly 30 per cent of Spanish speaking LDPs travelled more than 15 kilometres to access care at IPC—a considerable distance for a metropolitan provider and of particular concern for ageing patients.

In 2018, IPC completed a profile of the health status, service history and health outcomes of its 382 Spanish speaking patients.⁶⁵ This work found that Spanish speaking LDPs had higher rates of dyslipidaemia; diabetes; arthritis and musculoskeletal conditions; mental health disorders: and were more likely to be overweight or obese than the Australian LCPs. Their consultations were longer and their access to chronic disease management activities higher than levels reported elsewhere. As patients age, health indicators and life expectancy of this group are expected to deteriorate further, with communication remaining a continuing challenge. These conditions frustrate clinicians' abilities to address the complex medical, social and cultural factors of these IPC patients and further necessitate interpreter engagement and appropriate incentives for improving communication and culturally responsive care.

Recommendations

It is recommended that action be taken, and research be conducted, to support improved interpreter engagement in Australian general practice. The following recommendations were developed through consultation with Australian general practitioners and informed by the literature reviewed above.

Actions

Recommended actions include offering financial incentive to practices and practitioners for conducting interpreted consultations.

One option for financial incentive is Medicare reimbursement for interpreted consultations via a Medicare Benefits Schedule (MBS) number. This approach could be modelled on existing MBS numbers 10990/10991 for the billing of patients with concession status. MBS numbers 10990/10991 offer a modest rebate for general practice consultations with concessionary

patients. A new MBS item would integrate into existing GP systems and offer a similarly modest rebate, providing sustainable yet significant incentive for interpreted consultations.

Alternatively, financial incentive could be delivered through the Practice Incentives Program (PIP). PIP payments encourage general practices to continue providing quality care, enhancing capacity and improving access and health outcomes for patients. A review of existing PIP payments indicates a number of possible models for an interpreter engagement incentive:

- The PIP Teaching Payment delivers to a practice a sum per teaching session that GPs conduct with medical students. This payment compensates for the decreased capacity of GPs to see patients when facilitating student education.
 - Adapting this model for an interpreter engagement incentive, a lump sum could be paid to practices that meet or exceed specified requirements, including conducting a number of consultations using FIS and participating in cultural responsiveness training. Such measures would recognise and compensate for the extra time required to conduct an interpreted consultation—and therefore the decreased capacity to see LCPs—while increasing capacity to provide quality care to LDPs.

The GP Aged Care Access Incentive is a Service Incentive Payment (SIP) paid directly to GPs to encourage the provision of care in residential aged care facilities. The payment is available in two tiers, offering two levels of payments for meeting or exceeding corresponding, specified Qualifying Service Levels (QSLs) of MBS services.

An interpreter engagement incentive ٠ payment based on this model could offer a SIP to GPs who meet or exceed the provision of a specified QSL of MBS services conducted during an interpreted consultation. Methods for marking and tracking this service could include using a unique MBS claim identification code for interpreted consultations or claiming MBS services alongside a dedicated 'empty' MBS item. This 'empty' MBS item would only signify that the service was delivered with an interpreter and offer no rebate.

- The Indigenous Health Incentive offers a suite of payments to support practices to provide quality health care to Aboriginal and Torres Strait Islander patients, with a focus on chronic disease management. These payments can be understood as operating at three levels: a practice-based sign-on payment delivering a lump sum to practices that agree to undertake specified activities to improve provision of care (e.g. promoting cultural responsiveness both system-wide and especially in service delivery); a practitioner-based payment delivered to the practice when its doctors meetor exceed a threshold proportion of patientcare; and a patient-based payment delivering a sum per eligible patient who registers with the practice by filling out a consent form.
 - An interpreter engagement incentive payment based on this model could stipulate that practices and/or practitioners undertake specified measures (e.g. cultural responsiveness training) to be eligible for receiving the payment. Further, the proposed PIP could offer a suite of payments operating at multiple levels. A practice-based payment and a practitioner-based payment could be modelled after the PIP Teaching Payment and GP Aged Care Access Incentive as discussed above. Additionally, a patient-based payment could be implemented, offering a rebate per patient who self-registers with a practice as requiring an interpreter when giving consent.

Proposed model

Based on the above review, it is recommended that financial incentive for engaging interpreters in general practice consultations be delivered through a new Practice Incentives Program payment.

The proposed PIP Interpreter Engagement Incentive would encompass two tiers of payments. Modelled after the PIP Teaching Payment, one incentive would deliver a lump sum to practices which fulfil specified requirements and targets in the delivery of care to LDPs. The baseline target would require practices to meet a threshold number of consultations using FIS annually.

To be eligible for the first-tier payment, practices would additionally be required to participate in capacity-building activities, namely in the area of cultural responsiveness and working with interpreters. It is recommended that at least one clinician and one non-clinical (e.g. reception) staff be able to demonstrate participation in such capacity-building activities in the year preceding the payment round. This requirement is in line with similar standards under the PIP Indigenous Health Incentive.

The second payment option would be modelled after the GP Aged Care Access Incentive. This payment would be delivered to general practitioners who have met a threshold of MBS services delivered to LDP patients in an interpreted consultation. MBS items would be tracked against a marker to indicate their delivery in the presence of a qualified interpreter. While a patient-based payment could help incentivise practices and practitioners to sign on more LDPs, thus redistributing the disproportionate load of patients requiring interpreter services that practices like Inala Primary Care provide for, there are at least two issues that complicate the viability of this option.

First, patients with language barriers may be reluctant either to disclose their language requirements or to register their consent by filling out a form.

Second, considering the size of the population potentially requiring interpreter services at some point during their life, a rebate-per-patient model would be neither economically viable nor sustainable.

It is therefore recommended that the proposed PIP Interpreter Engagement Incentive comprise only the practice-based and practitioner-based payments.

Additional recommendations for facilitating interpreter engagement, concurrent with financial incentive, include amending the telephone interpreter service delivery and promoting interpreter-friendly environments.

Amending telephone interpreter service delivery is a simple solution that could significantly improve the uptake and effectiveness of the service. It is recommended that the automatic recordings played back when the telephone service is first called be audited, edited and made less timeintensive for practitioners accessing the service. The extra time required to navigate these recordings represents a drain on GPs' time and therefore resources. Amending the service will therefore make telephone interpreter services more accessible to clinicians while mitigating concerns about the time required to conduct prolonged interpreted consultations.

Meanwhile, promoting interpreter friendly environments and positive practices for interpreter engagement, especially among non-clinical staff, would facilitate interpreter engagement by addressing the procedural and systemic barriers to working with interpreters. Emphasis should be placed both on empowering nonclinical staff to identify the need for and book interpreters for LDP consultations, and on providing training and education on how to ensure strong communication for those with language barriers, including identifying which type of interpreter is appropriate.

Research

This review revealed a paucity of research on the costs, benefits and use of interpreter services—both in Australia and in general practice suggesting further research is needed. It is therefore further recommended that a comprehensive cost-benefit analysis of interpreter engagement in Australian general practice be undertaken. Other studies indicate that the paucity of research and inconsistent data collection methods complicate the ability to conduct such a comprehensive analysis⁶⁶ but this merely highlights the urgency with which these systems must be improved.

While findings from overseas studies are difficult to generalise or apply to primary health care in Australia,⁶⁷ quality research is required to inform quality policy regarding interpreter services for LDPs.

Existing studies nevertheless provide a framework for the research necessary to investigate the risks, costs and cost-savings to be realised from interpreter engagement across Australia.⁶⁸ These studies factor in variables that map onto high-risk areas in the provision of primary health care to LDPs, including those relating to medication errors; transfer to hospitals and escalation of care; post-hospitalisation care; and care for older LDPs.

Work cited

Australian Bureau of Statistics. 2017. Census reveals a fast changing, culturally diverse nation. http://www.abs.gov.au/ausstats/ abs%40.nsf/lookup/Media%20Release3.

Bayram, Clare, Rowena Ryan, Christopher Harrison, Joanne Gardiner, Marion Jean Bailes, Nayantara Obeyesekere, Graeme Miller, and Helena Britt. 2016. "Consultations conducted in languages other than English in Australian general practice." Focus (The Royal Australian College of General Practitioners) 45 (1-2): 9-13.

Bernstein, Judith, Edward Berstein, Ami Dave, Hardt Eric, Thea James, Judith Linden, Patricia Mitchell, Tokiko Oishi, and Clara Safi. 2002. "Trained Medical Interpreters in the Emergency Department: Effects on Services, Subsequent Charges, and Follow-up." Journal of Immigrant Health 4 (4): 171-176.

Bird, Sara. 2010. "Failure to use an interpreter." Professional 39 (4): 241-242.

Bishoff, Alexander, and Kris Denhaerynch. 2010. "What do language barriers cost? An exploratory study among asylum seekers in Switzerland." BMC Health Services Research 10 (248).

Blanchfield, Bonnie, G Scott Gazelle, Mursal Khaliif, Izabel Atocha, and Karen Hacker. 2011. "A Framework to Identify the Costs of Providing Language Interpretation Services." Journal of Health Care for the Poor and Underserved 22: 523-531. Blay, Nicole, Sharelle Ioannou, Marika Seremetkoska, Jenny Morris, Holters Gael, Verily Thomas, and Everett Bronwyn. 2018. "Healthcare interpreter utilisation: analysis of health administrative data." BMC Health Services Research 18 (348).

Brandl, Eva J, Stefanie Schreiter, and Meryam Schouler-Ocak. 2019. "Are Trained Medical Interpreters Worth the Cost? A review of the Current Llterature on Cost and Cost-Effectiveness." Journal of Immigrant and Minority Health (Springer).

Butow, Phyllis N, David Goldstein, Melaine L Bell, Ming Sze, Lynley J Aldridge, Sarah Abdo, Michelle Tanious, et al. 2011. "Interpretation in Consultations With Immigrant Patients With Cancer: How Accurate Is It?" Journal of Clinical Oncology 29 (20): 2801-2807.

Clegg & Associates. 2011. Final Evaluation Report. Seatle Children's Hospital, Pacific Hospital Preservation & Development Authority.

Diamond, Lisa C, Yael Schenker, Leslie Curry, Elizabeth H Bradley, and Alicia Fernandez. 2009. "Getting By: Underuse of Interpreters by Resident Physicians." Journal of General Internal Medicine 24 (2): 256-262.

Dowbor, Tatiana, Suzanne Zerger, Cheryl Pedersen, Kimberly Devotta, Rachel Solomon, Kendyl Dobbin, and Patricia O'Campo. 2015. "Shrinking the langage accessibility gap: a mixed methods evaluation of telephone interpretation services in a large, diverse urban health care system." International Journal for Equity in Health 14 (83). Flavin, Lila, Leah Zallman, Danny McCormick, and J Wesley Boyd. 2018. "Medical Expenditures on and by Immigrant Populations in the United States: A Systemic Review." International Journal of Health Services 48 (4): 601-621.

Flores, Glenn. 2005. "The Impact of Medical Interpreter Services on the Quality of Health Care: A Sytemic Review." Medical Care Research and Review 62 (3): 255-299. Flores, Glenn, Milagros Abreu, Cara Pizzo Barone, Richard Bachur, and Hua Lin. 2012. "Errors of Medical Interpretation and Their Potential Clinical Consequences: A Comparison of Professional Versus Ad Hoc Versus No Interpreters." Annals of Emergency Medicine (American College of Emergency Physicians) 60 (5): 545-553.

Forrow, Lachlan, and Jane Crandall Kontrimas. 2017. "Language Barriers, Informed Consent, and Effective Caregiving." Journal of General Internal Medicine 32 (8): 855-857.

Gany, Francesca M, Carlos Javier Gonzales, Gaurab Basu, Abdullah Hasan, Debjani Mukherjee, Minakshi Datta, and Jyotsna Changrani. 2010. "Reducing Clinical Errors in Cancer Education: Interpreter Training." Journal of Cancer Education 25 (4): 560-564.

Garrett, Pamela Wish, Roberto Forero, Hugh Grant Dickson, and Anna Klinken Whelan. 2008. "Communication and healthcare complexity in people with little or no English: the Communication Complexity Score." Ethnicity and Health 13 (3): 203-217. Gray, Ben, and Eric J Hardt. 2017. "A comparison of the use of interpeters in New Zealand and the US." New Zealand Medical Journal (New Zealand Medical Association) 130 (1456): 70-75.

Gray, Ben, Jo Hilder, and Hannah Donaldson. 2011. "Why do we not use trained interpreters for all patients with limited English proficiency? Is there a place for using family members?" Australian Journal of Primary Health 17: 240-249.

Gray, Ben, Jo Hilder, and Maria Stubbe. 2012. "How to use interpreters in general practice: the development of a New Zealand toolkit." Journal of Primary Healthcare 4 (1): 52-61.

Hampers, Louis C, and Jennifer E McNulty. 2002. "Professional Interpreters and Bilingual Physicians in a Pediatric Emergency Department." Archives of Pediatrics and Adolescent Medicine 156 (11): 1108-1113.

Henderson, Saras, and Elizabeth Kendall. 2011. "Community navigators': making a difference by promoting health in culturally and linguistically diverse (CALD) communities in Logan, Queensland." Australian Journal of Primary Health.

Henderson, Saras, and Elizabeth Kendall. 2011. "Culturally and linguistically diverse peoples' knowledge of accessibility and utilisation of health services: exploring the need for improvement in health service delivery." Australian Journal of Primary Health 17: 195-201. Henderson, Saras, and Elizabeth Kendall. 2014. "Reflecting on the tensions faced by a community-based mutlicultural health navigator service." Australian Health Review 38: 584-588.

Hlavac, Jim, Jonathan Beagley, and Emiliano Zucchi. 2018. "Applications of policy and the advancement of patients' health outcomes through interpreting services: data and viewpoints from a major public healthcare provider." The International Journal for Translation & Interpreting Research 10 (1): 111-136.

Hoang, Ha. 2008. "Language and Cultural Barriers of Asian migrants in Accessing Maternal care in Australia." The Internatioanl Journal of Language, Society and Culture (26): 55-61.

Hornberger, John C, Count D Gibson, Jr, William Wood, Christian Dequeldre, Corso Irene, Barbara Palla, and Daniel A Bloch. 1996. "Eliminating Language Barriers for Non-English-Speaking Patients." Medical Care (Lippincott Williams & Wilkins) 34 (8): 845-856.

Hu, Dale J, and Ruth M Covell. 1986. "Health Care Usage by Hispanic Outpatients as a Function of Primary Language." The Western Journal of Medicine 144: 490-493.

Huang, Yu-Ting, and Christine Phillips. 2009. "Telephone interpreters in general practice: Bridging the barriers to their use." Australian Family Physician 38 (6): 443-446.

Jacobs, Barb, Anne M Ryan, Katherine S Henrichs, and Barry D Weiss. 2018. "Medical Interpreters in Outpatient Practice." Annals of Family Medicine 16 (1): 70-76. Jacobs, Elizabeth A, Donald S Shepard, Jose A Suaya, and Esta-Lee Stone. 2004. "Overcoming Language Barriers in Health Care: Costs and Benefits of Interpreter Services." American Journal of Public Health 94 (5): 866-869.

Jacobs, Elizabeth A, Ginelle Sanchez Leos, Paul J Rathouz, and Paul Fu Jr. 2011. "Shared Networks of Interpreter Services, at Relatively Low Cost, Can Help Providers Serve Patients With Limited English Schools." Health Affairs 30 (10): 1930-1938.

Jacobs, Elizabeth A, Laura S Sadowski, and Paul J Rathouz. 2007. "The Impact of an Enhanced Interpreter Service Intervention on Hospital Costs and Patient Satisfaction." Journal of General Internal Medicine (Society of General Internal Medicine) 22 (2): 306-311.

Jacobs, Elizabeth, Alice Hm Chen, Leah S Karliner, Niels Agger-Gupta, and Sunita Mutha. 2006. "The Need for More Research on Language Barriers in Health Care: A Proposed Research Agenda." The Milbank Quarterly 84 (1): 111-133.

Jaeger, Fabienne N, Nicole Pellaud, Bénédicte Laville, and Pierre Klauser. 2019. "The migration-related language barrier and professional interpreter use in primary health care in Switzerland." BMC Health Services Research 19 (429).

Johnson, David R, Anna M Ziersch, and Teresa Burgess. 2008. "I don't think general practice should be the front line: Experiences of general practitioners working with refugees in South Australia." Australia and New Zealand Health Policy 5 (20). Johnstone, Megan-Jane, and Olga Kanitsaki. 2006. "Culture, language, and patient safety: making the link." International Journal for Quality in Health Care (Oxford University Press) 18 (5): 383-388.

Joshi, Chandni, Grant Russell, I-Hao Cheng, Margaret Kay, Kevin Pottie, Margaret Alston, Mitchell Smith, et al. 2013. "A narrative synthesis of the impact of primary health care delivery models for refugees in resettlement countries on access, quality and coordination." International Journal for Equity in Health 12 (88).

Karliner, Leah S, Andrew Auerbach, Anna Nápoles, Dean Schillinger, Dana Nickleach, and Eliseo J Pérez-Stable. 2012. "Language Barriers and Understanding of Hospital Discharge Instructions." Medical Care (Lippincott Williams & Wilkins) 50 (4): 283-289.

Karliner, Leah S, Eliseo J Pérez-Stable, and Steven E Gregorish. 2017. "Convenient Access to Professional Interpreters in the Hospital Decreases Readmission Rates and Estimated Hospital Expenditures for Patients with Limited English Proficiency." Medical Care 55 (3): 199-206.

Kirkman-Liff, Bradford, and Delfi Mondragón. 1991. "Language of Interview: Relevance for Research of Southwest Hispanics." American Journal of Public Health 81: 1399-1404.

Kravitz, Richard L, L Jay Helms, Rahman Azari, Deirdre Antonius, and Joy Melnikow. 2000. "Comparing the Use of Physician Time and Health Care Resources among Patients Speaking English, Spanish, and Russian." Medical Care (Kippincott Williams & Wilkins) 38 (7): 728-738. Ku, Leighton, and Glenn Flores. 2005. "Pay Now Or Pay Later: Providing Interpreter Services In Health Care." Health Affairs 24 (2): 435-444.

Lee, Jonathan S, Eliseo J Pérez-Stable, Steven E Gregorich, Michael H Crawford, Adrienne Green, Jennifer Livaudais-Toman, and Leah S Karliner. 2017. "Increased Access to Professional Interpreters in the Hospital Improves Informed Consent for Patients with Limited English Proficiency." Journal of General Internal Medicine (Society of General Internal Medicine) 32 (8): 863-870.

Lee, Moon, Mary Sobralske, Ellen Raney, and Brian Carino. 2016. "Interpretation time in an ethnically diverse pediatric orthopedic clinic." Journal of Health Organization and Management (Emerald Group Publishing Limited) 30 (4): 530-540.

Lee, Teresa S, Gwenda Lansbury, and Gerard Sullivan. 2005. "Health care interpreters: A physiotherapy perspective." Australian Journal of Physiotherapy 51 (3): 161-165.

Lindholm, Mary, J Lee Hargraves, Warren J Ferguson, and George Reed. 2012. "Professional Language Interpretation and Inpatient Length of Stay and Readmission Rates." Journal of General Internal Medicine 27 (10): 1294-1299.

Mirza, Mansha, and Elizabeth Adare Harrison. 2018. "Working With Clients With Limited English Proficiency: Mapping Language Access in Occupational Therapy." Occupational Therapy In Health Care 32 (2): 105-123. Mohanty, Sarita A, Steffie Woolhandler, David U Himmelstein, Susmita Pati, Olveen Carrasquillo, and David H Bor. 2005. "Health Care Expenditure of Immigrants in the United States: A Nationally Representative Analysis." American Journal of Public Health 95 (8): 1431-1438.

Narang, Bharat, So-Young Park, Ingrid O Norrmén-Smith, Michelle Lange, Alex J Ocampo, Francesca M Gany, and Lisa C Diamond. 2019. "The Use of a Mobile Application to Increase Access to Interpreters for Cancer Patients With Limited English Proficiency." Medical Care 57 (6): 184-189.

Nathenson, Robert A, Brendan Saloner, Michael R Richards, and Karin V Rhodes. 2016. "Spanish-Speaking Immigrants' Access to Safety Net Providers and Translation Services Accross Traditional and Emerging US Destinations." The Milbank Quarterly 94 (4): 768-799.

Njeru, Jane W, Jennifer L St Sauver, Debra J Jacobson, Jon O Ebbert, Paul Y Takahashi, Chun Fan, and Mark L Wieland. 2015. "Emergency department and inpatient health care utilization among patients who require interpreter services." BMC Health Services Research 15 (214).

Office of Management and Budget. 14 March 2002. Improving Access to Services for Persons with Limited English Proficiency. Report to Congress: Assessment of the Total Benefits and Costs of Implementing Executive Order No. 13166, Executive Office of President of the United States, Office of Management and Budget, OMB, 66. Phillips, Christine B, and Joanne Travaglia. 2011. "Low levels of uptake of free interpreters by Australian doctors in private practice: secondary analysis of national data." Australian Health Review (CSIRO publishing) 35: 475-479.

PricewaterhouseCoopers. 2015. "Culturally and Linguistically Diverse Patient Costing Study Report."

Quan, Kelvin, and Jessica Lynch. 2010. The High Costs of Language Barriers in Medical Malpractice. School of Public Health, University of California, Berkley, National Health Law Program, 22.

Rowse, Janine, Katrina Anderson, Christine Phillips, and Brian Chan. 2016. "Criticial case analysis of adverse events associated with failure to use interpreters for non-English speaking patients." (Australian National University Medical School).

Ryan, Jennifer, Samantha Abbato, Ristan Greer, Petra Vayne-Bossert, and Good Phillip. 2017. "Rates and Predictors of Professional Interpreting Provision for Patients With Limited English Proficiency in the Emergency Department and Inpatient Ward." The Journal of Health Care Organization, Provision, and Financing 54: 1-6.

Sanchez, Luis, Tracey Johnson, Suzanne Williams, Geoffrey Spurling and Joanne Durham. 2020. "Identifying inequities in an urban Latin American population: a cross-sectional study in Australian primary health care." Australian Journal of Primary Health 26(2): 140-146. Victorian Foundation for Survivors of Torture. July 2004. "Towards a health strategy for refugees and asylum seekers in Victoria." Victorian Department of Human Services, Foundation House, Brunswick, 140.

Wheeler, Amanda J, Jean Spinks, Fiona Kelly, Robert S Ware, Erica Vowles, Mike Stephens, Paul A Schuffham, and Adrian Miller. 2018. "Protocol for a feasibility study of an Indigenous Medication Review Service (IMeRSe) in Australia." BMJ Open 8: 8-12.

White, Jennifer, Trish Plompen, Christian Osadnik, Leanne Tao, Emily Micallef, and Terry Haines. 2018. "The experience of interpreter access and language discordant clinical encounters in Australian health care: a mixed methods exploration." International Journal for Equity in Health 17 (151).

White, Les, and Sharon Chalmers. 2011. "Responding to cultural diversity and two Sydney-based children's hospitals." Journal of Paediatrics and Child Health 47: 788-794.

Yelland, Jane, Elisha Riggs, Josef Szwarc, Sue Casey, Philippa Duell-Piening, Donna Chesters, Sayed Wahidi, Fatema Fouladi, and Stephanie Brown. 2016. "Compromised communication: a qualitative study exploring Afghan families and health professionals' experience of interpreting support in Australian maternity care." BMJ Quality & Safety 25.

Zendedel, Rena, Barbara C Schouten, Julia C M van Weert, and Bas van den Putte. 2018. "Informal interpreting in general practice: the migrant patient's voice." Ethnicity & Health 23 (2): 158-173. Zulu, Tryphine, Marion Heap, and Edina Sinanovic. 2017. "The cost and utilisation patterns of a pilot sign language interpreter service for primary health care services in South Africa." PLOS One 12 (12).

Endnotes

- 1 (Australian Bureau of Statistics 2017)
- 2 (Taira et al 2019) (Blanchfield, et al. 2011, Brandl, Schreiter and Schouler-Ocak 2019, Jacobs, et al. 2006, Karliner, Auerbach, et al. 2012, Joshi, et al. 2013)
- 3 (Flores, The Impact of Medical Interpreter Services on the Quality of Health Care: A Sytemic Review 2005)
- 4 (Garrett, et al. 2008, Rowse, et al. 2016)
- 5 (Flores, The Impact of Medical Interpreter Services on the Quality of Health Care: A Sytemic Review 2005, Ku and Flores 2005, Mohanty, et al. 2005) (Phillips 2016)
- 6 (Flavin, et al. 2018, Mohanty, et al. 2005)
- 7 (Brandl, Schreiter and Schouler-Ocak 2019)
- 8 (White and Chalmers 2011, White, et al. 2018)
- 9 (Gray, Hilder and Donaldson, Why do we not use trained interpreters for all patients with limited English proficiency? Is there a place for using family members? 2011)
- 10 (Zendedel, et al. 2018)
- 11 (Bird 2010, Butow, et al. 2011, Flores, The Impact of Medical Interpreter Services on the Quality of Health Care: A Sytemic Review 2005, Gray, Hilder and Donaldson, Why do we not use trained interpreters for all patients with limited English proficiency? Is there a place for using family members? 2011, Ku and Flores 2005, Quan and Lynch 2010)
- 12 (Flores, The Impact of Medical Interpreter Services on the Quality of Health Care: A Sytemic Review 2005)
- 13 (Forrow and Kontrimas 2017, Gray and Hardt, A comparison of the use of interpeters in New Zealand and the US 2017, Jacobs, Leos, et al. 2011, Jacobs, et al. 2018)
- 14 (Eneriz-Wiemer, et al. 2018)
- 15 (Hampers and McNulty 2002, Lindholm, et al. 2012, Lee, et al. 2016, White, et al. 2018)
- 16 (White, et al. 2018)
- 17 (Gany, et al. 2010, Ku and Flores 2005, White, et al. 2018)
- 18 (Hampers and McNulty 2002)
- 19 (Njeru, et al. 2015)
- 20 (Forrow and Kontrimas 2017, Karliner, Pérez-Stable and Gregorish, Convenient Access to Professional Interpreters in the Hospital Decreases Readmission Rates and Estimated Hospital Expenditures for Patients with Limited English Proficiency 2017, Lindholm, et al. 2012, Clegg & Associates 2011)
- 21 (Garrett, et al. 2008)
- 22 (Rowse, et al. 2016)
- 23 (Flores, The Impact of Medical Interpreter Services on the Quality of Health Care: A Sytemic Review 2005, Forrow and Kontrimas 2017, Gany, et al. 2010, Karliner, Auerbach, et al. 2012, Karliner, Pérez-Stable and Gregorish, Convenient Access to Professional Interpreters in the Hospital Decreases Readmission Rates and Estimated Hospital Expenditures for Patients with Limited English Proficiency 2017)
- 24 (Ryan, et al. 2017)
- 25 (Jacobs, et al. 2018, Quan and Lynch 2010)
- 26 (Garrett, et al. 2008, Rowse, et al. 2016)

- 27 (Bayram, et al. 2016, Gray, Hilder and Donaldson, Why do we not use trained interpreters for all patients with limited English proficiency? Is there a place for using family members? 2011, Philips and Travaglia 2011)
- 28 (Gray, Hilder and Donaldson, Why do we not use trained interpreters for all patients with limited English proficiency? Is there a place for using family members? 2011, Henderson and Kendall, Culturally and linguistically diverse peoples' knowledge of accessibility and utilisation of health services: exploring the need for improvement in health service delivery 2011)
- 29 (Henderson and Kendall, Culturally and linguistically diverse peoples' knowledge of accessibility and utilisation of health services: exploring the need for improvement in health service delivery 2011)
- 30 (Johnson, Ziersch and Burgess 2008)
- 31 (Bayram, et al. 2016)
- 32 (Jacobs, Leos, et al. 2011)
- 33 (White, et al. 2018)
- 34 (Jaeger, et al. 2019)
- 35 (Bird 2010)
- 36 (Johnstone and Kanitsaki 2006, Quan and Lynch 2010)
- 37 (Joshi, et al. 2013, Huang and Phillips 2009)
- 38 (Clegg & Associates 2011)
- 39 (Karliner, Pérez-Stable and Gregorish, Convenient Access to Professional Interpreters in the 40 Hospital Decreases Readmission Rates and Estimated Hospital Expenditures for Patients with Limited English Proficiency 2017, Forrow and Kontrimas 2017)
- 40 (Forrow and Kontrimas 2017, Gray, Hilder and Stubbe, How to use interpreters in general practice: the development of a New Zealand toolkit 2012, Huang and Phillips 2009, Johnson, Ziersch and Burgess 2008)
- 41 (Jaeger, et al. 2019) others
- 42 (Bishoff and Denhaerynch 2010, Jacobs, Sadowski and Rathouz, The Impact of an Enhanced
- 43 Interpreter Service Intervention on Hospital Costs and Patient Satisfaction 2007, Ku and Flores 2005, Lee, et al. 2016)
- 43 (Bishoff and Denhaerynch 2010, Brandl, Schreiter and Schouler-Ocak 2019, Hlavac, Beagley and Zucchi 2018, Jacobs, Shepard, et al. 2004)
- 44 (Phillips and Travaglia 2011) VanderWielen
- 45 (Bishoff and Denhaerynch 2010)
- 46 (Brandl, Schreiter and Schouler-Ocak 2019, Hlavac, Beagley and Zucchi 2018, Ku and Flores 2005, Quan and Lynch 2010)
- 47 (Eneriz-Wiemer, et al. 2018, Hlavac, Beagley and Zucchi 2018, Lee, et al. 2016, Clegg & Associates 2011)
- 48 (Bernstein, et al. 2002, Dowbor, et al. 2015, Flores, The Impact of Medical Interpreter Services on the Quality of Health Care: A Sytemic Review 2005, Jacobs, Sadowski and Rathouz, The Impact of an Enhanced Interpreter Service Intervention on Hospital Costs and Patient Satisfaction 2007)
- 49 (Flores, The Impact of Medical Interpreter Services on the Quality of Health Care: A Sytemic Review 2005)
- 50 (Flores, The Impact of Medical Interpreter Services on the Quality of Health Care: A Sytemic Review 2005, Jacobs, Shepard, et al. 2004)

- 51 (Jacobs, Shepard, et al. 2004, Joshi, et al. 2013, Mohanty, et al. 2005)
- 52 (Butow, et al. 2011, Jacobs, Sadowski and Rathouz, The Impact of an Enhanced Interpreter Service Intervention on Hospital Costs and Patient Satisfaction 2007)
- 53 (Flavin, et al. 2018, Jacobs, Sadowski and Rathouz, The Impact of an Enhanced Interpreter Service Intervention on Hospital Costs and Patient Satisfaction 2007, Jacobs, Leos, et al. 2011, White and Chalmers 2011)
- 54 (Bernstein, et al. 2002, Flores, The Impact of Medical Interpreter Services on the Quality of Health Care: A Sytemic Review 2005)
- (Gray and Hardt, A comparison of the use of interpeters in New Zealand and the US 2017, Ku and Flores 2005, Jacobs, Sadowski and Rathouz, The Impact of an Enhanced Interpreter Service Intervention on Hospital Costs and Patient Satisfaction 2007)
- 56 (Johnson, Ziersch and Burgess 2008)
- 57 (Johnson, Ziersch and Burgess 2008, Yelland, et al. 2016)
- (Diamond, et al. 2009, Huang and Phillips 2009, Johnson, Ziersch and Burgess 2008, White, et al. 2018)
 (Huang and Phillips 2009)
- 60 Ibid.
- 61 (Forrow and Kontrimas 2017)
- 62 (Bayram, et al. 2016, Phillips and Travaglia 2011)
- 63 (Gray, Hilder and Donaldson, Why do we not use trained interpreters for all patients with limited English proficiency? Is there a place for using family members? 2011, Zendedel, et al. 2018)
- 64 (Diamond, et al. 2009)
- 65 (Sanchez, et al., Identifying inequities in an urban Latin American population: a cross-sectional study in Australian primary health care, 2020)
- 66 (Joshi, et al. 2013, PricewaterhouseCoopers 2015, White and Chalmers 2011)
- 67 (Bishoff and Denhaerynch 2010, Brandl, Schreiter and Schouler-Ocak 2019)
- 68 See: (Office of Management and Budget 14 March 2002)