

**Value and affordability of private
health insurance and out-of-pocket
medical costs
July 2017**





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Executive Summary

The Medical Technology Association of Australia (MTAA) welcomes the opportunity to make a submission to the Senate Community Affairs Committee with respect to its inquiry into the value and affordability of private health insurance (PHI) and out-of-pocket medical costs.

As the peak body representing 71 medical device companies that supply a wide range of products used in a wide range of settings such as hospitals, homes and medical and allied healthcare practices, the focus of this submission relates to medical technology (MedTech) and its current and potential contribution to maximising the value proposition of PHI.

MTAA is of the view that any reform to the existing PHI system needs to achieve a balance between keeping PHI costs to consumers manageable yet offering maximum PHI value to consumers. Any reform which reduces PHI costs whilst diminishing the value of PHI to consumers is likely to be detrimental to consumers, either through reduced choice or increased out-of-pocket costs. This is likely to be detrimental to the objectives of broader reform which is to sustain PHI.

The complexity of health insurance is a major deterrent for both current and prospective customers. This is reflected in a record low 46.5% of the population (since the rebate was introduced) being covered for hospital treatment.

The previous Senate Inquiry held by this Committee into the Prostheses List (PL) framework considered the sustainability issues of PHI through reducing PL benefits and recommended a range of measures be adopted to reduce the PL cost. MTAA continues to work with Government on options for reform to occur in a manner that does not result in unintended consequences for patients increase the burden on the public hospital sector.

Despite its very small contribution to the proportion of the total PHI spend on hospital cover (14%), the PL contributes significantly to one of the key value propositions of PHI for consumers over the public hospital sector – choice. The PL provides privately insured patients certainty of access and cost (currently nil) to a wide range of prostheses in the private sector compared to the public sector and the choice of prostheses the surgeon can make for his/her patient is not constrained. The PL has also contained inflation in the level of the average PL benefit and thereby assisted in keeping PHI costs lower than they would have been had these arrangements not been in place.

It is therefore important that any reform to reduce PL cost does not diminish the consumer perception of PHI value through reduced choice or increased out of pocket costs to avoid a further exodus of members from PHI towards the public waiting lists.

MTAA welcomes this Inquiry examining the other 86% in every private health reimbursement dollar being spent. A review of these costs is likely to generate substantial savings to reduce PHI premium pressures.

This Inquiry offers the opportunity to improve the value of PHI through expanding the PL to allow technologies which support contemporary medical practice to be available to private patients and give them access to the same innovative technologies available to patients in the public system at no cost. This was recognised by this Committee in its previous Inquiry with a recommendation to this effect. However, unlike the previous Inquiry which, by focussing on the PL framework limited the MTAA response to technologies in the hospital setting, this Inquiry offers the opportunity to look at opportunities on how the value of PHI can be enhanced by supporting the use of medical technology to facilitate innovative healthcare interventions and innovative models of care outside the hospital setting. These include telehealth, remote monitoring and in-home dialysis.

These advances can result in savings to the healthcare system over current treatments and benefit the economy as patients are able to stay out of hospital and continue to work. It is important financial barriers are addressed to allow patients to access treatments that maximise outcomes and help the economic sustainability of the healthcare system. This Inquiry offers the opportunity for PHI to address patient financial barriers in accessing these technologies.

Introduction

The Government supports PHI through providing a range of incentives and penalties for consumers to take out private health cover which comprises general treatment cover and/or hospital cover. History has shown the uptake of PHI responds to Government implementing policy levers to support PHI product engagement at a consumer level. In the absence of these incentives, consumers revert to the public system.

MTAA notes that Australian Prudential Regulation Authority figures show exclusions can be found in 38.1% of hospital insurance policies — compared with 27.3% three years ago. Further, figures reveal an increase in policies with an excess and co-payments, from 78.1% to 81.9% over the same period which possibly means that current Government levers are not sufficient to keep insurers in business and make a profit for shareholders. What is clear is that consumers are not happy with their current arrangements as reflected in Private Health Insurance Ombudsman Quarterly Bulletin complaints which have increased by 38% in past three years with existing policy holders suffering bill shock as they were not aware of the changes to their cover.

MTAA recognises that without a viable PHI system, the pressure on public hospitals and ultimately patient care would be significant and is therefore committed to working with Government on reform of the elements which comprise hospital related PHI expenditure. However, in terms of PHI reform, MTAA considers that there needs to be a balance between PHI cost and PHI value. Reducing PHI costs at the expense of reducing PHI value to consumers is detrimental to the objectives of broad reform which is to sustain PHI. A dramatic cut to the PL is a simplistic target that will have unintended consequences for the MedTech industry. Those consequences are likely to mean:

- Job losses;
- MedTech companies shutting doors;
- Patients and surgeons will have access to reduced choice of technologies; and
- A further erosion of the value proposition of PHI long-term.

For these reasons, this submission focusses on elements which would increase the value proposition of PHI to consumers and incentivise consumers to take out PHI cover through broadening the health technology offering and the value this brings within the hospital setting and outside the hospital setting.

In putting this submission forward, MTAA recognises the funding of new technologies is challenging, however:

- Not all new technologies are more expensive than the technologies they replace;
- New health technologies can offer broader healthcare savings as they may be less invasive or be used in less invasive procedures and therefore reduce the rate of complications. This would result in reduced overall hospital costs and allow patients to return home earlier; and
- New technologies for managing chronic disease can prevent hospital admissions through detection of an impending serious medical event allowing for earlier and less intensive medical intervention.

Notwithstanding the above, if a technology offered under hospital treatment cover has been proven to have benefits which justify the costs, it should be funded under the PL arrangements irrespective of whether it costs more than an alternative therapy. If a technology is offered under general treatment

cover, consideration should be given as to what evidentiary levels should apply to allow PHI to provide these products.

In considering this aspect, it should be noted the level of evidence for making some therapies available under PHI general treatment policies appears to be rather poor and therefore inclusion of such therapies is based on 'perceived' consumer value of a particular therapy compared to the 'actual healthcare value' of that therapy.

The value of medical technology to the PL is discussed in the following sections.

Key opportunities to enhance PHI arrangements through MedTech

Non-Implantable

While the current PL has been successful in supporting choice and containing costs, it has not been updated to reflect advances in technology and models of care. This was a key recommendation of this Committee in its PL framework Report:

“The committee recommends that the Protheses List Advisory Committee investigate a mechanism for the reimbursement of medical devices not currently eligible for inclusion on the Protheses List, including non-implantable devices and implantable devices not requiring hospital admission.”

Advances in technology mean that medical devices that are used in effective and clinically proven surgical procedures are not eligible for listing on the PL because they are not permanently implanted in the body. Further, the requirement that all prostheses products must be included on the Australian Register of Therapeutic Goods (ARTG) is also problematic as this means prostheses that are custom made for individual patients are not able to be included on the PL.

This is because custom made devices and products that are approved by the Therapeutic Goods Administration (TGA) for individual patient use or individual practitioner use are exempt from being included on the ARTG.

With the evolution of 3D printing and therapies that are more uniquely manufactured for an individual patient, continuing this requirement will be problematic and means the PL is not reflecting advances in technology. It should be sufficient for PL purposes that the TGA has approved the device.

Patients are the ultimate beneficiaries of incremental innovation, and access to more technologically advanced prostheses in the private sector enhances the value of PHI to consumers.

MTAA believes this contributes to the value proposition for consumers whereby it is a patient's surgeon rather than his or her health fund seeking to control patient clinical decisions.

Delaying entry to the private market comes at significant cost to the medical device industry especially as the effective market life of a device is relatively short due to the high rate of incremental innovation. If assessments are significantly delayed, the technology being assessed can be superseded and private patients will not receive access to the latest technologies which may already be available in public hospitals.

By changing the definition to include non-implantable technologies for reimbursement this will provide earlier access to clinically effective and cost-effective therapies and would maximise the value of PHI to consumers. Examples that demonstrate this occurring are:

- While Drug Eluting Stents (DES) are included on the PL, Drug Eluting Balloons (DEB) are not. Despite being more clinically appropriate for the patient in some circumstances as an alternative to a DES, and supplied at a lower cost, PHI funds have been reluctant to provide ex-gratia payments to cover the discrepancy. Without support by the fund, the use of a DEB will be a cost borne by the private hospital while any savings from DES not used will benefit the health fund.
- Fractional Flow Reserve (FFR) guided Percutaneous Coronary Intervention (PCI) (pressure wires) - FFR measured with a pressure wire during angiography measures blood flow in diseased coronary arteries and determines where coronary stents should be placed. It has been demonstrated that 30% of stents are unnecessary and that better outcomes are achieved with fewer stents. There is a financial disincentive to use a pressure wire in the private sector. In the private system, PHI funds either do not or only partially cover the cost of the pressure wire. Private hospitals do not routinely receive any additional benefit – no incentive – for the cost savings associated with the use of pressure wire. The Medicare item number for coronary angiography with use of a pressure wire pays less than the item number for PCI and stent(s).
- Ablation catheters are not included on the PL and private health insurance covers only the patient's hospital stay, theatre time and professional fees but not the ablation catheter, leading to inconsistent funding required to perform these procedures. Therefore, if private patients are denied access to these procedures, they may be forced to seek treatment in the public health system. This will invariably add to the existing burden on public hospital waiting lists.

Recommendation:

- MTAA would like to see a request a resolution of this Committee recommendation for non-implantable technologies being added to the PL.

Example: Ablation catheters

An ablation catheter is used in cardiac ablation procedures to treat atrial fibrillation (AF). AF affects around 460,000 Australians and places them at higher risk of stroke, heart failure and death than the general population. AF is in the top 20 of overnight acute separations according the AIHW data with 41,621 cases in 2015-16.

Patients can be treated with life-long medication or, if they do not respond to medication, undergo a cardiac ablation procedure which destroys small areas of the heart tissue where abnormal heartbeats may cause an arrhythmia to start.

Cardiac catheter ablation is endorsed as a treatment by the Cardiac Society of Australia and New Zealand and its efficacy has been substantiated by a systematic review and meta-analysis into the long-term outcomes of catheter ablation of AF.

Ablation catheters do not meet the criteria though for being included on the PL as they are not permanently implanted in the body. The consequences are firstly for patients receiving a cardiac ablation in a private hospital, have to either pay for the cost of these devices themselves or the hospital has to meet these costs.

This means some private hospitals do not offer this procedure at all and patients are either referred to a public hospital for treatment or they remain on life-long pharmacological treatment. The perverse consequence being that patients are sent to the public hospital system putting more but avoidable pressure on already stretched resources or if they are kept on pharmacological treatment, then the cost of this ongoing treatment is borne by the PBS.

It has been clinically proven that an AF Ablation procedure has resulted in a 75% success rate for patients but it cannot be paid for in a private hospital by insurers. An example of how technology can work in

everybody's interests, to reduce readmission rates, but cannot be offered in the private system without subjecting the patient to a large out-of-pocket expense.

Custom Made

Custom made devices (CMDs) are not eligible for listing on the PL because the medical device regulations specifically state that CMDs do not require inclusion on the Australian Register for Therapeutic Goods (ARTG).

CMDs are still required to fulfil all relevant Essential Principles for safety and effectiveness, but are not required to be included on the ARTG. While technically possible to list a CMD on the ARTG, the investment of time and money to do so in respect of a CMD for each individual patient would be prohibitive and makes this an unpractical solution because CMDs are by their very nature customised, one-off devices.

In practice, CMDs are usually funded in the private sector through PHI approved ex-gratia payments.

For convenience and to facilitate PHI approvals, the price of a custom-made graft is based on the nearest off-the-shelf PL listed device. This may vary greatly depending on the clinical purpose of the device (e.g. an aortic aneurysm (AAA) main body graft PL benefit is \$5,794 ranging to a benefit of \$14,500 for a long thoracic graft).

However, while cost is an issue, the more pressing concern is the requirement to request an ex-gratia payment from the insurer which slows down treatment of the private patient but is not assured and is applied differently by different funds – equity of access issue. In the public system, it would normally just require the head of the vascular department to approve the payment. The following is an example of the approval process covering a CMD endo-vascular graft.

Recommendations:

- The listing of custom made devices on the PL should be facilitated to reduce red tape and improve patient access;
- Changes to enable the Prostheses List Advisory Committee (PLAC) to accept applications for custom-made devices for entry on the PL; and
- Custom-made medical devices should be able to be included in the ARTG, if the sponsor wishes to voluntarily do so, in a manner which is not prohibitive in time and cost.

Example: Custom Made Device:

When a surgeon determines clinically that their patient is not suitable for treatment with a standard off-the-shelf device, the doctor will prescribe a custom made endovascular graft for a patient. The sponsor confirms to the surgeon that the graft is not on the PL and therefore the surgeon will need to request (on behalf of their patient) an ex-gratia payment for the device from the patient's PHI fund.

Ex-gratia payments are discretionary payments for services not covered under the rules of the insurer. The surgeon will be required to clearly explain to the PHI fund the clinical scenario that necessitates the use of the CMD. While funds will generally approve these payments, review of the surgeon's request and the clinical documentation slows the approval process, resulting in delays to the manufacturing of the prosthesis.

As CMDs will often take 4-6 weeks to plan, design and manufacture, further delays due to approval issues with the private insurer often extends the date of surgery, increasing the time in which the patient remains untreated and potentially at risk from aneurysm rupture.

Delays in treating aortic aneurysms can be life threatening and the uncertainty of payment and whether the procedure will be covered can be a cause of great anxiety. As these are bespoke products for the individual patient, as a commercial manufacturer, the sponsor cannot start to manufacture the product until certain that the procedure will proceed.

In the public system, it is normally the responsibility of the director of Vascular Surgery to sign-off the payment for the custom made endovascular grafts. The relative ease for ordering a CMD in the public system could be seen to create an inequity between public and private patients.

3D printing of devices is another method of manufacturing a CMD and will increasingly be utilised to provide bespoke devices in circumstances where greater precision is required than can be provided by off the shelf devices.

Out of Hospital services

Just as non-implantable devices with proven health economic outcomes should be included for reimbursement by PHI policies we also need to change the incentives for increased access to services outside of the hospital environment.

As innovation such as remote monitoring and telehealth continue to enable patients to be treated outside of the hospital setting it is important funding barriers are addressed to allow patients to access treatments that maximise outcomes and help the economic sustainability of the healthcare system.

Patient focused technology has the ability to fill a void created by the health care system in the non-hospital setting. The issue of market access and reimbursement streams through private healthcare of MedTech that assists patients better manage chronic disease in the home should be considered incentivised.

Private health insurance does not routinely cover medical services that are provided out-of-hospital. Some of these services were previously provided to admitted hospital patients, but due to developments in clinical practice, can now be provided in outpatient, community or home settings.

Additionally, many sub-acute care medical products needed by patients for appropriate clinical care (and in some cases, survival) out-of-hospital are not covered by private health insurance. In general, these items are consumable, single-use, non-implantable medical products, together with the hardware that the consumables are required for to ensure appropriate clinical care.

Examples of sub-acute care medical products include:

- oxygen supplies/consumables;
- compression hosiery, bandages and garments for lymphoedema;
- continence products; and
- sleep apnoea devices.

Renal dialysis

End stage renal disease (ESRD) is resource intensive to treat. In 2014, there were 22,234 people being treated for ESRD in Australiaⁱ. ESRD patient numbers are expected to increase by 60% between 2011 and 2020ⁱⁱ. According to the Australian Institute of Health and Welfare this growth has “significant implications for health service planning and resource allocation in the future, including the probable increasing need for dialysis services and kidney transplantsⁱⁱⁱ”.

ESRD creates a significant implication on the health service resources. In 2013-14, dialysis was the most common reason for hospitalisations, accounting for 1.4 million hospitalisations or 14% of all hospitalisation. This number has grown by 73% since 2003-2004.

Dialysis and transplantation for ESRD are estimated to cost over \$1 billion each year^{iv}. The majority of the cost of treating ESRD is being borne by the public sector. In 2014-15, AIHW reported 82% of haemodialysis separations (AR-DRG L61Z) were performed in public hospitals^v. Many public units are at or close to capacity.

Dialysis can be conducted in either the hospital setting or in the home. While home dialysis has demonstrated clinical and economic benefits, privately insured patients do not have access to this treatment. Some private health insurers cover hospital based dialysis but no insurers provide coverage for home dialysis. Further to this, private health insurance coverage in centre or hospital dialysis is limited to the highest level of cover.

ESRD is the last stage of chronic kidney disease in which kidney function has declined to the point where replacement of kidney function in the form of a kidney transplant or dialysis is needed to sustain life. Kidney disease is a known co-morbidity of cardiovascular disease and diabetes.

Treatment options for patients with ESRD include:

- dialysis (facility based or home based);
- transplant; or
- conservative treatment.

Within a facility (hospital or satellite centre), only Haemodialysis (HD) is performed. Patients are connected to a HD machine approximately three times per week for three to five hours. At home, patients self-administer HD or Peritoneal Dialysis (PD) at regular intervals during the day or night (while sleeping). For many patients this allows them to perform normal daily activities, including work.

The clinical and social benefits of home dialysis include:

- increased dialysis dose ;
- patient freedom and flexibility, including potential to return to work;
- improved quality of life; and
- equivalent or improved clinical outcomes.^{vi vii}

The economic benefits of Home dialysis are also clear. Costing Studies have found home-based dialysis is significantly less costly than hospital or clinic dialysis^{viii} (Table 1).

Table 1 Annual Expenditure (per person) on Dialysis by Modality

Dialysis Modality	2007-08	CPI adjusted* to March 2016
Home PD	\$24,144	\$34,097
Home HD	\$24,248	\$34,244
In Centre/outpatient	\$53,624	\$75,730
Satellite clinic	\$43,541	\$61,490

NSW Dialysis costing study: Table 2

*ABS Health CPI Series A2331111C June 2008 – March 2016 : 141.22%

It is important to note an economic factor of concern to patients is the lack of reimbursement for out-of-pocket expenses, such as utility costs, when dialysing at home. Some States and Territories have programs to cover these expenses but it is often deemed to be insufficient.

Despite the overall patient and economic benefits, most healthcare expenditure currently goes towards the more costly treatment option of facility based dialysis.

At the end of 2014, 30% of Australian dialysis patients were dialysing at home. In New Zealand this was 49% of patients^{ix}. Currently, if a patient wants to have dialysis at home they will need to be treated in the public health system as home dialysis is not available to patients with PHI.

The lack of private coverage for home dialysis is compounded by other barriers limiting patient's use of PHI centre or hospital dialysis, including coverage for renal dialysis being limited to the highest level of cover. Many patients do not have advanced notice of their need to dialyse, onset may occur with limited notice or symptoms. As members are required to serve a 12 month wait before they can access dialysis services they will often need treatment in the public system in the meantime. In many cases once treatment is established they will not change services.

Telehealth

Despite the fact telehealth and remote monitoring technologies have the potential to achieve considerable health system efficiencies and reduce costs, little progress has been made towards their widespread adoption. One of the key barriers to the broad adoption of these technologies has been the lack of funding and reimbursement pathways, and it is clear that funding and reimbursement systems will have to change in order to incorporate innovation.

In Australia, there is an opportunity to increase the adoption of telehealth and remote monitoring technologies by paying healthcare providers for quality and improved patient outcomes, rather than the volume of services they provide. Current reimbursement systems that are based on a fee-for-service model serve as a disincentive to the use of these technologies.

Many telehealth and remote monitoring technologies are caught in a vicious cycle. Public and private payers are unwilling to provide comprehensive access to these technologies, as the evidence base is derived largely from smaller pilot studies and trials, which they argue has limited applicability to the wider population. Importantly however, generating real world data generally requires some form of coverage and reimbursement to be in place.

Regarding the implementation of telehealth and remote monitoring technologies, there are two key cost considerations. The first is the cost of the medical consumables or devices, and the second is the cost of the service (data transmission and monitoring).

The costs associated with the provision of the service (data transmission and monitoring) are either inconsistently funded, or not funded at all. Medicare Benefit Schedule (MBS) items for telehealth were introduced in July 2011. However, the definition of telehealth was limited to video consultations and limited by distance.

Telehealth services such as vital signs monitoring are not commonly funded by PHI in Australia. It would be expected that PHIs would adopt telehealth and remote monitoring solutions, as they compete for members and look to develop innovative initiatives that provide cost-effective health solutions, which keep people out of hospital.

However, there are few financial incentives for PHIs to fund such initiatives, as risk equalisation arrangements mean that any savings achieved as a result of a future reduction in claims are potentially lost to the individual insurer. Therefore, it is important that the Government is able to incentivise PHIs to offer such services, for example by making the provision of these and other services that are focused on chronic disease management key indicators of fund performance, and linking these indicators to Government rebates.

Recommendations:

- Private health insurance should provide coverage for non-admitted hospital services needed by patients receiving standard clinical care outside of hospital and in the community and home settings, especially for those living in rural and remote areas.
- As innovation such as remote monitoring and telehealth continue to enable patients to be treated outside of the hospital setting it is important funding barriers are addressed to allow patients to access treatments that maximise patient outcomes and help the economic sustainability of the healthcare system.
- Patients should also be provided access to subsidised, clinically and cost-effective sub-acute care products that are essential for their care in out-of-hospital and in home and community settings.
- Appropriate and consistent coverage to be provided for an integrated and well-coordinated approach for delivering care across primary, community and specialist care services.
- Regulatory changes should be implemented to encourage PHI funds to become more innovative, and provide greater value for consumers, by linking Government rebates to fund performance indicators such as the provision of innovative and cost-effective services focused on the prevention and management of chronic disease, including telehealth and remote monitoring services, especially for those patients living in rural and remote areas.

Conclusion

MTAA would like to thank the Committee for undertaking this Inquiry to investigate the remaining 86% of all PHI hospital benefit payments and the general cover arrangements for ancillary services. Reform of the other areas will generate more substantial savings than the PL.

The MTAA recognises the public health system pressures and the important role that PHI has in alleviating these, particularly in light of the increasing burden of chronic disease and the ageing population. The PL has played a significant and successful role in supporting PHI but there is scope for improvement to ensure that privately insured patients obtain best value from their contributions towards PHI.

New forms of technology can help deliver models of care outside of the hospital environment, however, presently Government has not provided the right incentives for PHI to generally take them up.

MTAA recognises that new technologies need to demonstrate an improved patient outcome and reduce strain on the health system to warrant inclusion. Society cannot pay for everything and tough choices have to be made where to spend scarce health dollars. All stakeholders in healthcare need to ensure patients have access to new technologies that deliver value.

As this submission shows MTAA has offered its options for reform for the Committee's consideration. The MTAA believes these options will ensure that savings are delivered whilst strengthening a key element of the PHI system and supporting the value proposition PHI offers.

About MTAA

The MTAA is the national association representing 71 manufacturers and suppliers of medical technology used in the diagnosis, prevention, treatment and management of disease and disability.

MTAA works with stakeholders to ensure the benefits of innovative and reliable medical technology are delivered effectively to provide better health outcomes for the Australian community. Over 80% of MTAA members are small-medium enterprises (SMEs) (less than 200 employees) and only around 15% are multinational companies.

Medical devices are products used in the diagnosis, prevention, treatment and management of disease and disability. Products range from consumable items such as bandages and syringes, to high technology implantable devices such as cochlear implants, cardiac defibrillators and orthopaedic joints. It also includes diagnostic imaging and operating theatre equipment, through to products which incorporate biological materials or nanomaterials.

The industry is characterised by a high level of innovation, resulting in a short life cycle for many products. Medical technology innovation is characteristically incremental in nature. Medical devices undergo constant development based on feedback from medical practitioners and advances in other sciences relevant to medical technology.

i ANZDATA Registry. 38th Report, Chapter 2: Prevalence of End Stage Kidney Disease. Australia and New Zealand Dialysis and Transplant Registry, Adelaide, Australia. 2016

ii Australian Institute of Health and Welfare 2014b, Projections of the prevalence of treated end-stage kidney disease in Australia 2012–2020, Cat. No. PHE 176, Canberra: AIHW. (p11)

iii Australian Institute of Health and Welfare 2014b, Projections of the prevalence of treated end-stage kidney disease in Australia 2012–2020, Cat. No. PHE 176, Canberra: AIHW. (p18)

iv Cass A, Chadban S, Gallagher M et al. The economic impact of end-stage kidney disease in Australia: Projections to 2020. Kidney Health Australia, Melbourne, Australia; 2010.

v Australian Institute of Health and Welfare 2016. Admitted patient care 2014–15: Australian hospital statistics. Health services series no. 68. Cat. no. HSE 172. Canberra: AIHW.

vi NSW Agency for Clinical Innovation. ACI Clinical Innovation Program: 'Home first' dialysis model of care. Chatswood: NSW Agency for Clinical Innovation; 2014.

vii Fortnum, D., & Ludlow, M. (2014). Improving the uptake of home dialysis in Australia and New Zealand. Renal Society of Australasia Journal, 10(2), 75-80.

viii Health Policy Analysis, 2009: NSW Dialysis Costing Study, 2008 Volume 1 Main report Version 1.3

ix ANZDATA Registry. 38th Report, Summary Brochure. Australia and New Zealand Dialysis and Transplant Registry, Adelaide, Australia. 2016