Issues Paper:
Chronic Wounds in Australia

July 2017

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Chronic Wounds

$3 billion? per year

2% Total national healthcare expenditure

Chronic wounds reduce quality of life and working capacity, and increase social isolation

A high proportion of the costs are actually borne by patients

Evidence-based wound care =
better patient outcomes and cost savings

Barriers to implementation of evidence-based wound care:

- **High costs** and inadequate reimbursement
- **Poor incentives** to invest in evidence-based wound care in the primary sector
- **Difficulty accessing** wound care expertise
- **Poor education and training** in evidence-based practice
- **Poor co-ordination and communication** across health care providers
- **Lack of awareness** of the significance of chronic wounds

Executive Summary

Chronic wounds are a silent epidemic in Australia[1]. They are a significantly under-recognized public health issue, and impose substantial costs to the health care system and patients. Evidence-based practice in wound care has consistently been shown to be cost-effective and even cost-saving, leading to improved patient outcomes, yet there are significant evidence-practice gaps. Wound management receives little attention and investment compared to other chronic conditions. In this issues paper, we investigate the reasons for this phenomenon and examine the case for improved wound care in Australia.

A literature review was conducted to identify current funding and barriers to the implementation of evidence-based wound care and preview the social and economic benefits to be gained from improving health service coordination and funding. Through stakeholder engagement we further explore the barriers to evidence-based wound management and the delivery of these services in Queensland.

Summary of Barriers to implementation of evidence-based wound care in Australia:

- Poor communication and co-ordination across health sectors
  - Poor communication across multiple health care providers, poor co-ordination across health sectors and poor continuity of evidence-based treatment and preventative care along the health service continuum
- Lack of awareness
  - Lack of awareness of significance of chronic wounds, evidence-based practice wound care and referral pathways
- Poor education and training
  - Lack of confidence and lack of skilled health care professionals proficient in evidence-based practice, particularly in rural/remote areas
  - Poor patient education and confusion among patients as to whom to access for treatment
  - Lack of available education and training in this field
- Difficulties in accessing wound care expertise and wound products
- High costs and inadequate reimbursement of wound services and products
- Poor incentives to invest in evidence-based wound care in the primary sector

Increased uptake of cost-effective, evidence-based practice is unlikely until the fundamental issues of health care provider training, access to wound care expertise and reimbursement of wound care services and products are addressed. Evidence on cost-effectiveness should be used to inform future policy and decision-making activities, reduce health care costs and improve patient outcomes.

Table of Contents

1 Introduction

The purpose of the brief is to investigate the reasons why, despite increasing costs and the impact on quality of life, chronic wounds remain an under-recognised public health issue, and wound care receives little attention and investment compared to other chronic conditions in Australia.

In addition, we explore the key public health policy issues and barriers relating to implementing evidence-based wound management, and make the case for improved wound care in Australia. Potential benefits of the provision of coordinated evidence-based wound care include improved health outcomes, increased patient and carer satisfaction, and reduced costs[2-5]. This issues paper was prepared by the Australian Centre for Health Services Innovation in partnership with Metro North Hospital and Health Service, Brisbane North Primary Health Networks, and the Wound Management Innovation Cooperative Research Centre in order to inform the Chronic Wounds Solutions Forum to be held on 31 August 2017.

Chronic wounds are defined as wounds that have failed to heal (reach anatomic and functional integrity)[6,7]. Other underlying factors such as diabetes or venous insufficiency, along with poor nutritional status or infection can further complicate wound healing. Chronic wounds reduce quality of life and working capacity, and increase social isolation[8]. As the Australian population ages and the prevalence of vascular disease, obesity and type-2 diabetes continues to increase, so to will the prevalence and incidence of chronic wounds in Australia. There are limited Australian data on the prevalence of chronic wounds, particularly in the community, but based on data identified through a systematic review of prevalence and incidence[9], a recent study estimated that pressure injuries (PI) are the most common wound type, comprising 84% of more than 400 000 estimated cases of chronic wounds in hospital and residential care settings, followed by venous leg ulcers (VLU) (12%), diabetic foot ulcers (DFU) (3%) and arterial ulcers (AU)(1%)[10]. However, in primary care DFU and VLU are the most common chronic wound types[11].

In addition to the impact on quality of life, chronic wounds impose substantial costs to the health care system and patients. In Australia, economic modelling by Graves and Zheng estimated the direct health care costs of chronic wounds at US$2.85 billion (about A$3 billion) a year, which equates to approximately 2% of Australian national health care expenditure[10]. These costs are likely an underestimate as only hospital and residential aged care costs are included. There are also very large out-of-pocket costs incurred by patients. For example, patients 60 years and over with a VLU have been estimated to pay A$27.5 million annually in out-of-pocket costs for compression therapy and consumables [4,12].

A recent study in the UK described the substantial health and economic burden of wound management, as comparable to that of managing obesity[13]. The burden of wound management is a similarly significant public health issue here in Australia, but chronic wounds remain under-recognised, receiving little attention and investment compared to other chronic conditions. Chronic wounds are often underreported, as they are considered complications of other comorbid conditions[1]. For example, in burden of disease studies, diabetes is listed as a cause but diabetic foot complications are included as one of the sequelae of diabetes and separate estimates are often not available at this level of disaggregation. Furthermore, as wound management is not recognised as a discrete health care field or a national priority, securing an impetus for change is particularly challenging.

Unfortunately, despite clear evidence demonstrating that implementation of evidence-based wound care coincides with large health improvements[2,14] and cost savings[2-5], research suggests the majority of Australians with chronic wounds do not receive best practice treatment[2,15,16]. We conducted a review of the scientific literature to identify possible barriers to the provision of evidence-based care and summarise the evidence for the social and economic benefits to be gained from improving health service coordination and funding. Through stakeholder engagement we further explore the barriers to evidence-based wound management and the delivery of wound services in Australia.

2 Review of Published Evidence

A literature search was conducted using PubMed and EMBASE to summarise the evidence on how better utilisation of evidence-based wound management has demonstrated not only improved patient outcomes, but also significant cost-savings to the health system and patients. Furthermore, a literature search was also conducted to identify relevant published articles on key barriers to the implementation of evidence-based wound management in Australia. Key issues relate to coordination of care pathways, awareness of evidence-based wound management, access to evidence-based wound management services and consumables, education and training of patients and health professionals and high costs and reimbursement for wound services and consumables. The findings from this literature review are discussed using a narrative format.

2.1 Social and economic benefits of providing evidence-based care for chronic wounds

There are many studies that have demonstrated the effectiveness of different treatment options and product-oriented interventions related to wound management. These have resulted in faster healing times, less pain, and reduced likelihood of infection and hospitalisation. This has societal impacts in terms of improvements in quality of life as well as reduced hospital and GP visits, reduced costs to patients, and faster return to work. Much of this evidence has formed national and international treatment and prevention guidelines. Unfortunately, this has not necessarily resulted in a change to practice.

Below are just a few indicative examples of the impact of evidence-based practice on costs and health outcomes in Australia and internationally.

2.1.1 Venous leg ulcers (VLU)

Compression therapy for venous leg ulcers, has been recommended as the first line of treatment in clinical practice guidelines for almost 20 years[17]. Further, compression therapy as part of evidence-based care has been shown to not only be clinically effective[18,19], but also cost-effective[4,20-22]. Unfortunately, many VLU patients do not receive adequate compression therapy[17]. Evidence-based guidelines also recommend that all patients with a leg ulcer should have an Ankle-Brachial Pressure Index (ABPI) or duplex ultrasound assessment undertaken every 3–6 months to assist in diagnosis and guidance of treatment, yet in a sample of 70 patients in Queensland, only 31% of participants with a lower limb ulcer had an ABPI or duplex assessment in the previous 12 months. In addition, only 6.3% (2 of 32) of patients with a venous leg ulcer were receiving compression on admission to the study clinics, and a total of 11% had been treated with compression in the last 12 months[2].

In Australia, the cost of compression bandages are not subsidised under the Pharmaceutical Benefits Scheme (PBS) or the Medical Benefits Schedule (MBS) (except for veterans who have served in the Australian Defence Force through the Repatriation Pharmaceutical Benefits Scheme (RPBS)). GPs often charge patients for these consumables, or patients purchase these at retail pharmacies or through commercial distributors. However, a recent study by Cheng and colleagues estimated that if the government provided compression therapy to affected individuals 60 years and older, it would cost the health system A$500 million over 5 years, but would result in cost savings of about A$1.4billion to the health system (A$1.2 billion to Australian government and A$200 million to State and Territory government) and A$236 million cost savings in out-of-pocket cost to patients over the same period[20]. A Western Australian study also demonstrates that the reduction in out-of-pocket costs for patients would be significant – estimating over A$10million per year saving for older Australians[23]. This provision of appropriate compression therapy has been shown in Germany[24], the United Kingdom[25], and United States[26], to increase the rate of healing and be cost saving. Therefore, appropriate and active use of subsidised compression therapy has the potential to not only drastically improve patient outcomes, but also significantly reduce costs for the entire Australian healthcare system.

2.1.2 Pressure injuries (PI)

The majority of pressure injuries are preventable, yet cost the Australian Health system A$983million per annum, including over 500,000 lost bed days (2012-13)[27]. Consistently utilising common evidence-based preventative measures could greatly reduce this figure. There is strong evidence that alternating and pressure reducing mattresses along with regular re-positioning can reduce or prevent pressure injuries and are included in clinical guidelines. These prevention strategies are considered cost-effective in the UK, USA and Canada[28-32]. A recent study in Denmark utilised a guideline based pressure ulcer bundle which was effective and cost-saving[33]. In Australia, the addition of nutritional support was cost-effective in higher risk patients[34].

Other commonly recommended interventions include a risk assessment conducted by a specially trained clinician, nutritional supplements, pain management, and even negative pressure therapy. To prevent recurrence, reduction in risk factors (smoking cessation, physical activity), better management of co-morbidities (diabetes, hypertension), education of patients/ carers and clinical staff, and other pressure reducing strategies are considered important parts of evidence-based PI management, but most do not have any economic assessment.

2.1.3 Diabetic Foot ulcers (DFU)

DFU guidelines commonly include: an initial risk assessment and grading of ulcer, debridement, and appropriate dressings, appropriate footwear and/or pressure offloading, infection management, multi-disciplinary care including podiatrist visits, and patient education[20,35]. Other interventions such as diabetes support and nutritional support are often included to combat the underlying comorbidity[35,36].

Adopting evidence-based wound management based on international standards for DFU has been both effective and cost-effective in a variety of settings. In both the Netherlands[37] and Sweden[38] moving to evidence-based DFU management (based on international guidelines) reduced both the incidence of DFU and amputations and was found to be cost-effective. Similar adoption of International DFU guidelines in Peru[39] resulted in not only improved health outcomes, but also cost-savings. The introduction of a multidisciplinary protocol for DFU in Thailand resulted in improved health outcomes and was found to be cost-saving[40]. However, in Austria[41] adoption of international standards for DFU was only cost-effective and cost saving for the higher risk groups. A recent cost-effectiveness analysis in Australia estimated total cost savings at A$2.7 billion over 5 years, and increased quality of life If all patients at high risk of developing DFUs in Australia were to receive evidence-based care instead of usual care for DFUs[20].

2.1.4 All chronic wounds

Benefits to be gained from improving health service coordination and funding of wound care include avoiding large costs due to inappropriate services as well as avoiding morbidity and reduced quality of life. A Swedish intervention in a population of about 150,000 that utilised a wound healing centre, multidisciplinary care and continuous education reduced annual costs of wound care by SEK6.96million over a 10 year period (after inflation, A$2.13 million in 2017)[42].

Similar improvements have been demonstrated in Australia with the introduction of specialist wound clinics in Queensland (cost-savings of A$76.99 per patient per week with evidence-based care, which is equivalent to A$9.2million for 10,000 patients for 12 weeks (standard healing time)[3]. The use of multi-disciplinary teams using a standardised wound treatment protocol in Melbourne's aged care facilities was shown to be cost-effective when compared to usual care[43]. Furthermore, a telemedicine intervention providing remote specialist wound consultations to patients in the Kimberley region saw improved health outcomes and cost savings of A$191,935 after a year[44].

2 Review of Published Evidence

2.2 Barriers to implementation of evidence-based wound care

It is clear that implementation of evidence-based practice coincides with large health improvements and cost savings, yet a significant gap exists in the use of evidence-based practice in Australia. The search identified common barriers to implementation of evidence-based wound care as outlined in Figure 1 and described in detail below.

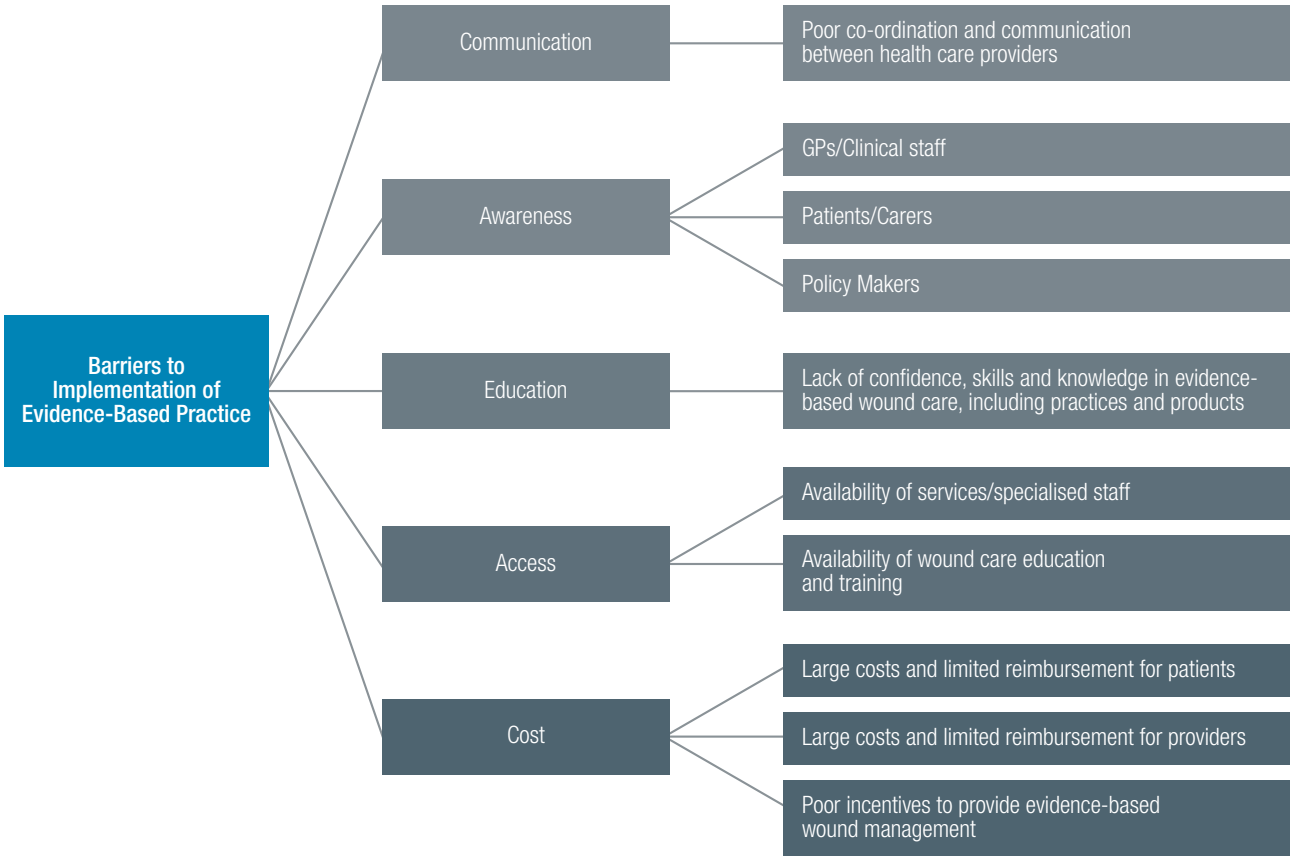


Figure 1: Common barriers to implementing evidence-based wound management

2.2.1 Poor co-ordination and communication across healthcare providers

Wound management in Australia is complex and diverse. It is provided predominantly in the primary care setting, with GPs (and related nursing staff) at the forefront of wound management. Wound care, particularly chronic wound care, can also involve multiple uncoordinated healthcare providers and treatment arrangements (Figure 2). The most frequent combinations include: GP care in isolation (42%); GP, medical specialist and community nursing team (16%); GP and allied health professional/team (13%); and GP and medical specialist (12%)[2]. These providers often have limited contact and there are no national coordinated care pathways for chronic wound treatment. A lack of movement and integration of patient records and information may also hinder coordinated care. This lack of coordination and diffusion of responsibility makes it difficult for patients and carers to access the high level of care they need resulting in poor continuity of evidence-based treatment and preventative care along the health service continuum.

Self-management of wounds is also common, often due to lack of access to suitable care providers, lack of knowledge among patients around appropriate treatment pathways, and excessive costs[12]. Inappropriate treatment and self-management can lead to increased hospital admission for serious recurrent complications which compounds pressure on public hospitals. Conversely, early discharge from tertiary facilities before wounds have stabilised puts pressure on the primary care system[12].

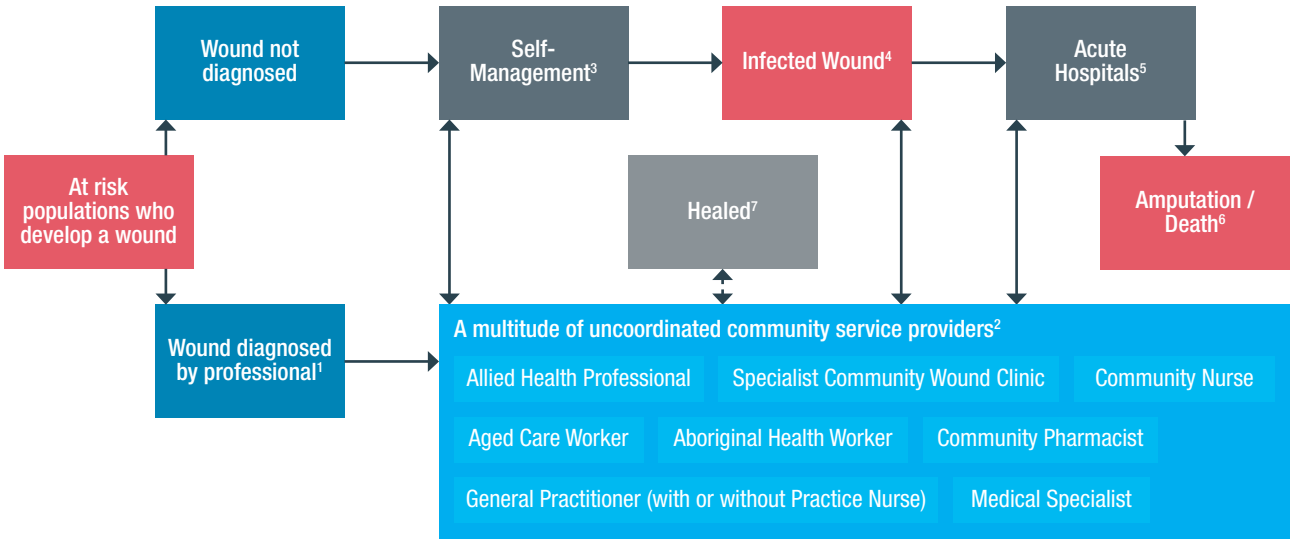


Figure 2: Current wound management services[12]

Explanation of numbers in boxes above: [1] Wounds diagnosed by a health care professional would be managed by a range of community-based services. These services vary by their knowledge skills and ability to heal chronic wounds. For example, a patient could be seen by his/her general practitioner (GP), not be offered evidence-based care and bounced around between community care services and GP visits for long periods of time incurring high costs and suffering poor quality of life. [2] In addition to GPs, wounds can be treated by medical specialists (on referral) such as dermatologists or vascular surgeons, nurses, allied health professionals and Aboriginal health workers. Treatment can also be provided in specialised hospital-based outpatient wound clinics (upon referral from medical practitioner). There are also specialist wound clinics led by nurse practitioners and podiatrists (in the community as well as private). In addition, unregulated health care workers have been known to provide wound care in aged care facilities. These services include patient out-of-pocket payments for services, products and devices. [3] A wound not diagnosed might be self-managed for some time until the patient seeks care from a range of community-based services [2] and might then continue with self-management. [4] All chronic wounds, self-managed or other, are at risk of infection, which could lead to admissions to acute hospitals [5] and, in some cases, amputation or even death [6]. After discharge from hospital, these chronic wounds are again managed by community service providers [2], and patients may then be re-admitted to hospital with complications. [7] Wounds managed by community service providers could be healed after some time and then might recur, incurring further interactions with community-based services. (This image is reproduced with permission of' International Wound Journal', the copyright owner).

2 Review of Published Evidence

2.2.2 Lack of awareness

There is an overall lack of awareness among policy-makers, health professionals and the public about the significance of chronic wounds in Australia. Unfortunately, many general practitioners and related health professionals are not fully aware of the latest evidence relating to prevention and treatment of chronic wounds. This is due to a range of factors. One of the most common reasons highlighted across most evidence-based practice and implementation literature (regardless of condition) is a lack of resources and time. As evidence-based wound assessment and management can be particularly time consuming, consultations are based on the presenting problem with little opportunity for preventive measures. Other studies have highlighted difficulties in accessing evidence, a lack of critical appraisal skills, even inconsistent findings and a lack of consensus between experts, as reasons for not utilising evidence-based practice. Chronic wound management may not be a high priority for GP professional development given the many other conditions that may dominate their practice. However, even when evidence is robust and national official guidelines for the prevention and management of chronic wounds are available, this information is often not utilised. There is also a lack of awareness around evidence-based practice referral pathways.

In addition to awareness among practitioners, many patients and carers are not aware of the health benefits of evidence-based practice. As such they do not search for providers who provide evidence-based care, nor request optimal prevention and treatment.

2.2.3 Poor education and training

Lack of skilled healthcare professionals proficient in evidence-based practice as well as a lack of confidence are major barriers to utilising evidence-based practice in chronic wounds[14,45,46]. This lack of confidence, skills and knowledge in evidence-based wound care[46-51], is due to a lack of education not only in the undergraduate degrees, but also in post graduate and professional development options[12]. As such, there is a clear need for more education and training in evidence-based wound care, particularly for primary healthcare workers on appropriate practices, investigations, and products[46]. Improved confidence and skill in evidence-based care can counteract an initial rejection of change and a desire to continue with old, comfortable, and ineffective practices for many practitioners.

Poor patient education and confusion among patients as to whom to access for treatment is another barrier. Patient compliance with treatment may often be affected by their understanding of the importance and benefits of particular practices, as well as the prohibitive cost of consumables and repetitive consultations.

2.2.4 Difficulties in accessing wound care expertise and wound products

Even when awareness of evidence-based wound management is addressed, access to expert wound care and advice remains an issue across Australia. It is important to stress that there is a general lack of access to expert wound advice for all Australians. Nevertheless, difficulties in accessing wound care expertise and lack of equitable access is of particular concern in rural and remote areas. Specialists, tertiary clinics, or secondary tier clinics in the community are often confined to major cities and towns. Since chronic wounds are linked to chronic disease such as diabetes and vascular disease, older persons and indigenous Australians are over-represented, resulting in a disproportionately higher prevalence, and associated morbidity and mortality[52-54]. This lack of equitable access to services and consumables means lower socio-economic as well as rural and indigenous populations are most affected.

2.2.5 High costs and inadequate reimbursement of wound services and products

Limited access to evidence-based wound management may also be due to economic factors. The lack of coordinated services is not only evident in relation to care pathways, but also in relation to funding and reimbursement arrangements. Wound care funding at present in Australia is complex and not well understood. Different arrangements and costs structures seem to apply to different healthcare providers in different jurisdictions. Patient out-of-pocket payments for wound care also vary depending on these arrangements and structures. This unfortunately also results in a wide variety of patient out-of-pocket costs across the system but there is a lot of uncertainty regarding these arrangements (as demonstrated in Table 1).

Federal and jurisdictional governments fund hospital-based, aged care and some community wound management services. Public hospital visits and outpatient consultations are normally free to the patient and usually include consumables such as dressings. Consumables are included

in community nursing visits in some jurisdictions, but not others [4]. Medicare reimburses healthcare provided by GPs, medical specialists and nurse practitioners outside hospitals as per the MBS[55], however, one audit in Queensland found that the total costs of wound management in general practices was greater than that reimbursed or charged, resulting in a loss for the clinic[56].

However, consumables including dressings are not subsidised under the PBS[57] or the MBS (except for Veterans who have served in the Australian Defence Force). Patients will regularly be charged extra for these consumables either by the GP, other healthcare provider or directly from retailers such as pharmacies[58]. In addition, patients using private sector allied health professional services including podiatrists may be reimbursed for up to five allied health consultations per year through the MBS if there was an appropriate referral from a GP, but patients must pay the full costs of consultations in excess of five per year. The level of out-of-pocket costs often depends both on the individual patient's insurance level and the provider's fees.

This lack of funding for wound management, particularly in relation to consumables is short-sighted given that provision of optimal evidence-based care is regularly shown to be, not only cost-effective in terms of cost for improved patient outcomes, but even cost-saving to the wider health system with regard to reduction in health care provider visits, infections, as well as the benefit to society in terms of faster healing times, hospitalisations avoided, improved quality of life and ability to return to work for patients.

2.2.6 Poor incentives to invest in evidence-based wound care in the primary sector

With no wound-specific MBS item numbers, and the inability to access reimbursement for clinician time and consumables through the MBS, there are no financial or time-saving incentives for general practices to become actively involved in evidence-based wound care. In addition, where future cost savings are disbursed in the acute sector, the incentive to provide additional evidence-based care in primary care is reduced. GPs, for example, may be reluctant to invest in more expensive evidence-based wound products that reduce risk of hospitalisation because they do not want to pay for benefits accrued elsewhere in the health system[59].

Type of patient	Medicare (Medical Services)	Medicare (Diagnostic tests)	Private Health Insurance (Medical Services)	Medicines listed on PBS[a]	Wound Products and devices	Patient out-of-pocket costs for wound products/devices
Public Hospital inpatients	Accommodation and medical costs covered	Covered	N/A	Subsidised	Covered by hospital?	N
Private Hospital inpatients	Partial cover for medical costs	Covered	Depending on policy some or all costs	Subsidised	Covered by hospital?	N
Public hospital outpatients	Covered	Covered	N/A	Subsidised	Covered by hospital?	N
Community nursing	Not covered	Covered	Depending on policy some or all costs of service	Subsidised	Partially covered by service fee in some jurisdictions?	Y (except ACT[&])
General practitioner	Subsidised	Covered	Gap cover depending on policy	Subsidised	Partially covered in some practices? May be covered by private health insurance extras cover depending on policy and appropriate referral	Y (except ACT[&])
Medical specialist (not in hospital)	Subsidised	Covered	N/A	Subsidised	May be covered by private health insurance extras cover depending on policy and appropriate referral	Y
Nurse practitioner	Subsidised	Covered	N/A	Subsidised	May be covered by private health insurance extras cover depending on policy and appropriate referral	Y
Allied health	Subsidised*	Covered	Subsidised*	Subsidised	May be covered by private health insurance extras cover depending on policy and appropriate referral	Y
Veterans who have served in Australian Defence force	Subsidised	Covered	Subsidised	Subsidised	Subsidised through RPBS	Y ($6.30 co-payment per prescription)

Table 1: Funding arrangements across the different service providers (from patient perspective)

[a] Pharmaceutical benefits can only be prescribed by doctors, dentists, optometrists, midwives and nurse practitioners who are approved to prescribe PBS medicines under the National Health Act 1953. N/A=not applicable; ?=unknown/unclear; Y = Yes, costs are borne by patient; N=No out-of-pocket costs; *Up to a maximum number of visits only; [&] a few sources suggest no out-of-pocket costs to patients in ACT; PBS= Pharmaceutical Benefits Scheme; RPBS =Repatriation Pharmaceutical Benefits Scheme; ACT= Australian Capital Territory

3 Stakeholder Engagement

The following stakeholders were invited to complete a short survey to outline their priorities in relation to the barriers they face in implementing evidence-based wound management. A sub-set of stakeholders encompassing clinicians, hospital administrators, researchers and patients were also selected for interviews to further explore the identified barriers.

	Stakeholders
Providers / Administrators	General practitioners, PHNs, NGO & ACCHO providers of primary care services and chronic disease management services (Metro)
	General practitioners, PHNs, NGO & ACCHO providers of primary care services and chronic disease management services (Regional/Remote)
	Public Hospital Clinicians and decision makers (Metro and Regional)
	Public Hospital Clinicians and decision makers (Rural/Remote)
	Private Hospital Clinicians
	Clinical Networks
	Commissioning – State
	Commissioning – Federal
	Commissioning – Primary (PHN)
	Policy – Federal and State
	Private Health Insurers
Patients/Advocates	Patients (Current/ongoing)
	Patients (Past)
	Carers
	Consumer Advocates

PHN= Primary Health Networks
NGO=Non-Governmental Organisation
ACCHO= Aboriginal Community Controlled Health Organisations

Please note these data were collected with the purpose of improving wound services but this method may not provide statistically valid data. It simply provides both data and qualitative insights, to enable us to consider solutions accordingly. The majority of respondents who completed the survey were clinicians or healthcare providers (52%), followed by researchers (21%), patients/carers (17%), hospital administrators (7%) and policy and decision makers (3%) (Figure 3). Overall, 83% of respondents were 'Providers/Administrators', and 17% were ' Patients/Advocates'.

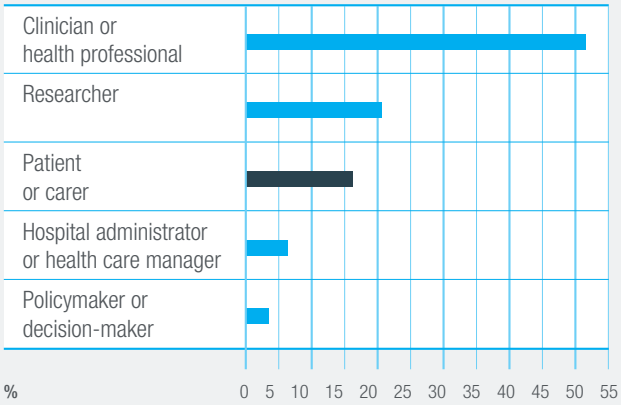


Figure 3: Survey respondents' characteristics

3.1 Priorities identified through stakeholder survey and interviews

The following priorities to overcome identified barriers were rated within the survey, and were broken down into two fields – 'Education/Provision of Services' and 'Financial Support'.

Education and Provision of Wound Services:

- Better communication between patient and health care providers through secure sharing of medical records
- Increasing awareness among patients/carers about wounds and the best treatment and prevention methods (evidence-based management of chronic wounds)
- Having more trained staff in primary care settings for specialised wound management
- Better coordination of services for chronic wounds through clearer treatment and referral pathways
- Increasing awareness among clinicians about wounds and the best treatment and prevention methods (evidence-based management of chronic wounds)
- Providing more training to health professionals in chronic wound management

Financial Support:

- Making chronic wound management a strategic objective for governments
- Having better reimbursement/rebates for wound care services to patients
- Having reimbursements/rebates for wound care consumables to providers
- Having reimbursements/rebates for wound care consumables to patients
- Having better reimbursement/rebates for wound care services to providers
- Having incentives for health professionals to engage in preventative care and improve patient outcomes

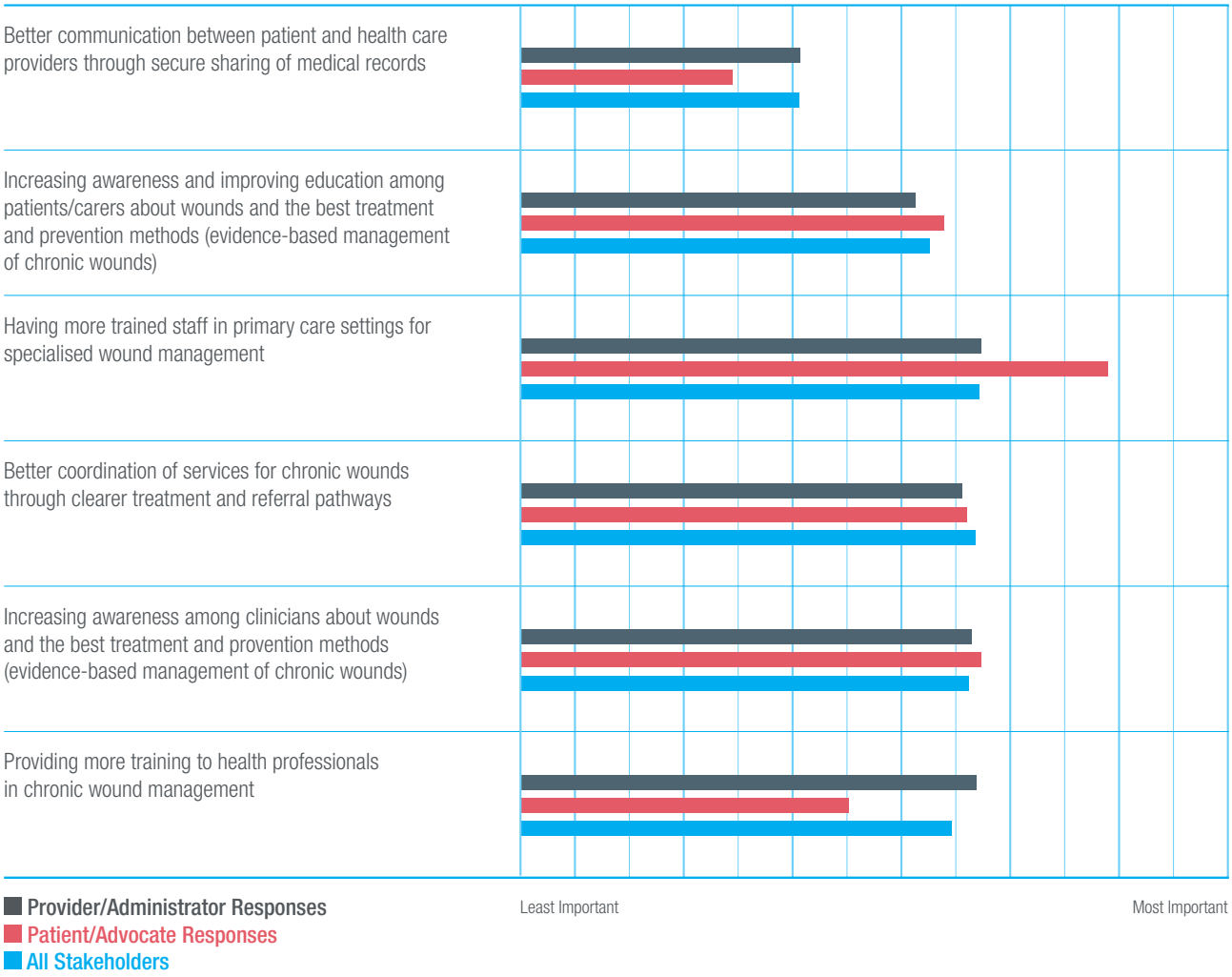
3 Stakeholder Engagement

3.1.1 Priorities to overcome barriers to Education and Provision of Services

Respondents were asked to rank priorities to overcome identified barriers to increased uptake of evidenced-based chronic wound management, in the field of education and provision of wound services, from highest (1) to lowest (6). The graphs below displays the results – the length of the bar indicates importance, with the longest bar representing the action rated as the highest priority by respondents. We analysed the responses separately for 1) provider/administrator (which included clinicians, researchers, policy makers and hospital administrators) and 2) patients/advocates.

It was interesting to note that both Provider/Administrator and Patient/Advocate groups both rated having more staff trained in specialised wound management in primary care as the most important priority.

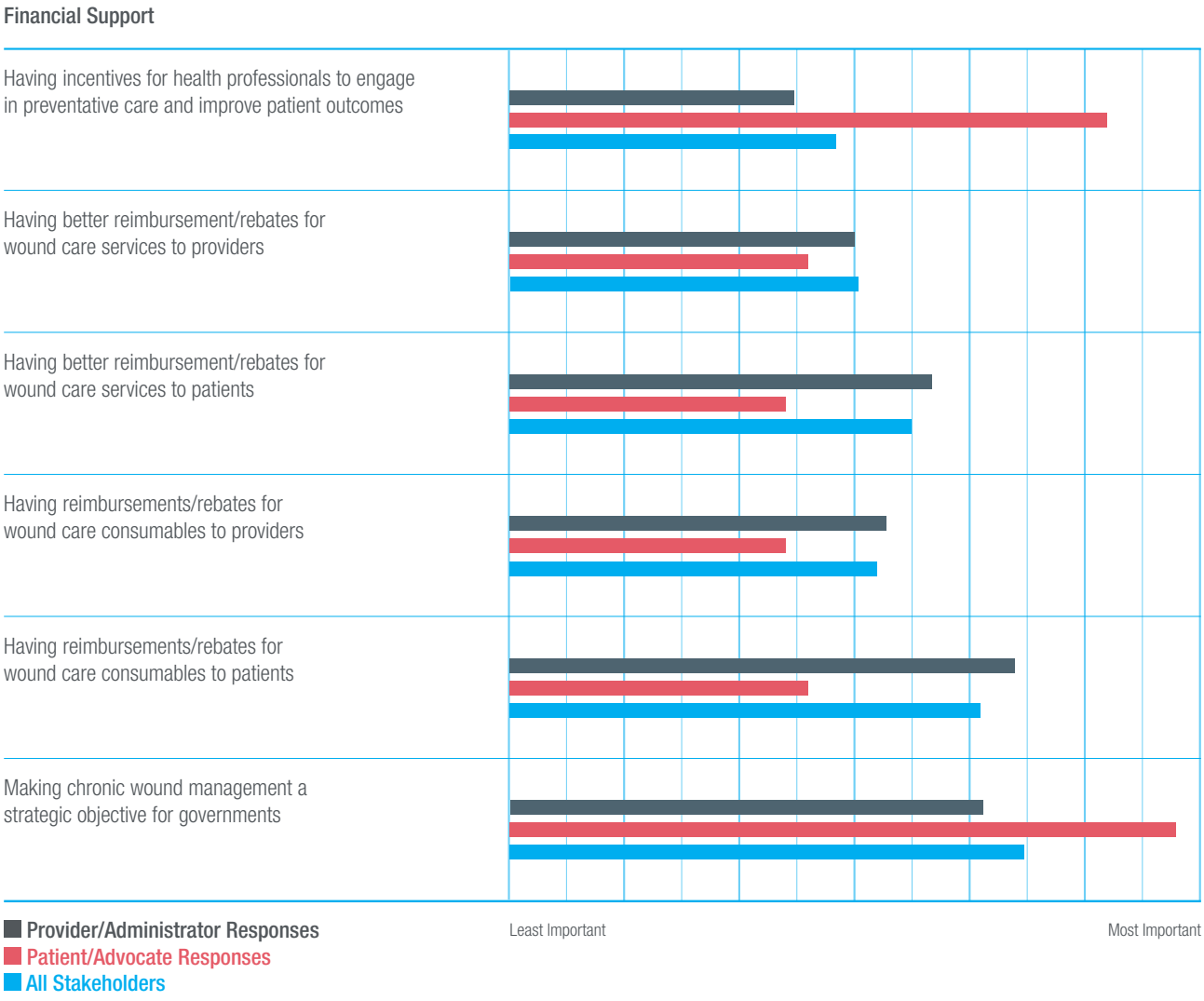
Education and Provision of Services



3.1.2 Priorities to overcome barriers relating to Financial Support in Wound Management

Respondents were asked to prioritise possible solutions to financial barriers surrounding effective chronic wound management from highest (1) to lowest (6). Again, the length of the bar indicates importance, with the longest bar representing the barrier rated as the highest priority by respondents.

Providers and administrators rated reimbursements for wound care products to patients as the highest priority, while patients and advocates rated this as the third highest priority together with reimbursements for wound services for health care providers. The most important priority for patients and carers was making wound management a strategic objective for governments and this also became the highest priority for all stakeholder respondents combined. Patients, carers and advocates also considered incentives for providers to engage in preventative care and improve patient outcomes important rating this as their second highest priority.



3 Stakeholder Engagement

3.1.3 Stakeholder interviews and responses

Both interviewees and respondents in the survey were asked to provide their thoughts on any additional barriers and solutions. These responses were then combined with information drawn from direct interviews with other key stakeholders. The following additional barriers and solutions were identified by respondents who are currently delivering and receiving wound care in Australia:

What do you feel is the biggest barrier to effective chronic wound management in Australia?

- ✖ "There's a general lack of education and understanding in primary care settings."
- ✖ "Not enough clinicians are using diagnostics or investigations, for example dopplers, and there seems to be a lack of knowledge and use of simple intervention tactics, for example compression therapy."
- ✖ "There's limited availability/provision and access to evidence-based practice services and skilled clinicians"
- ✖ "There's limited access to specialised wound care for regional, rural and remote Australians."
- ✖ "No accountability for poor practices and no auditing of care being received within wound care settings."
- ✖ "Clinicians are not always engaging patient trust – patients are not being involved in the discussion of treatments, explanation of 'why' a treatment is being used, what the ongoing treatments will be etc."
- ✖ "Community nurses are not receiving enough support or training to be confident in suggesting a change in their patients' treatment plan, or recommending referral to specialist services."
- ✖ "Patients are not aware that specialist services (for example wound clinics) exist."
- ✖ "Lack of psychological support for those who are struggling - both medical providers and patients"
- ✖ "No follow up and compliance programs on treatment plans."
- ✖ "Not enough education of at risk patients - those with venous insufficiency, brittle skin (steroid users, very elderly, etc), diabetes, peripheral neuropathy, peripheral vascular disease, etc - and carers in how to prevent new onset wounds and prevent new onset wounds from becoming chronic"
- ✖ "The Governments strategic engagement and funding of consumables and education are the main issues. Patients often do not know there are people specialising in wounds"
- ✖ "Being unable to get the specialised dressings & products from regular chemists etc."

What do you feel would be some effective solutions to overcome these barriers?

- ✔ "There needs to be better use of clinical pathways, improved communication and reliable service providers."
- ✔ "Look at innovative models of health service delivery – there needs to be a redesign of the health care system."
- ✔ "Compulsory wound related education should be provided by service providers, and auditing of practices to ensure wounds have a diagnosis and receive appropriate treatment."
- ✔ "Basic wound education for "at-risk" clinicians (i.e. those who are highly likely to treat chronic wounds)."
- ✔ "Widespread advocacy for patient involvement in their own treatment and ongoing care plans."
- ✔ "Lobby government and health insurance to develop a reimbursement system for appropriate wound care products and develop a register of credentialed wound care providers to ensure economic use of the reimbursement system. These measures need initial financial support but will over time improve patient care and costs of chronic wounds to the country."
- ✔ "Mass education programs, regular GP review, close monitoring and more proactive intervention for patients with non-healing wounds."
- ✔ "Demonstrating to governments the net financial savings to be made by investing more resources into state-of-the-art wound management."
- ✔ "Developing Patient Compliance programs to help empower patients to care for their wounds."
- ✔ "Increase awareness to universities to teach wound care and add to curriculum."
- ✔ "A greater awareness and incentives for health professionals to promote their skills."

3.2 Patient experiences

Two patient experiences have been included to highlight how the barriers to evidence-based wound management in Australia outlined in previous section can directly affect patient outcomes. The stories of patients were collected for wound service improvement purposes, with a focus on patients' experiences and feelings. Names have been changed.

Sarah's Story

Sarah* is 43 and works in a café - as such she is required to be on her feet all day. She has a diagnosed history of varicose veins and has a GP who she trusts and sees regularly.

One day while working, Sarah knocked both her legs on the corner of a fridge, causing very small lacerations. She covered them and continued working, not thinking much of her injuries. However after nearly a month, her wounds had not healed, and were beginning to look worse.

She booked an appointment with her local GP clinic; however her regular GP was away, so she booked to see another doctor. The first GP she saw advised her that the wounds would heal in time. She decided to get a second opinion and saw a different GP, who she then sees over the next few months. During this time she was prescribed a range of dressings, medications and treatments; however she showed little improvement and was suffering from recurring infections.

After more than four months Sarah was referred to a dermatologist, who diagnosed her wounds as venous ulcers and suggested compression therapy. Sarah's normal GP returned and confirmed this diagnosis and prescribed specialised wound dressings and frequent dressing changes, to complement the compression therapy. Even though her GP was willing to prescribe these specialised dressings, they were expensive and access through the clinic was difficult. Further, access through many pharmacies was also a problem. It took some months before Sarah was advised about a company that can source the required dressings easily; however they would only deliver them to her directly after significant pleading.

Sarah's wounds are still in the process of being healed (10 months post-injury), but she now attends a specialised wound clinic on a regular basis.

"*Access to the things that are helping to deal with these Venous Ulcers seems to be such an issue and, while I understand the expense, when you have injuries like this and something is working to fix it you should be able to access it easily. It is painful at times, and impacts your life so much. Simple things like putting on your stockings and bathing cause issues, and when you have problems with accessing supplies, that's the last thing you need.*

My regular GP has been the key to where I am now - one wound almost healed and the experts in the field are helping me further to heal them. The specialists have been amazing but when you arrive and see a waiting room full of patients from all walks of life waiting to have their wounds treated, there seems to be some downfall in early detection and them getting the right treatment, as well as the right supplies to treat them. We haven't kept track of costs however with supplies, dermatologists, GP visits, travel, parking and compression stockings, we would estimate we'd be $3500 out of pocket - only now are we getting treatment with minimal cost, not including dressings.

I write my story to be able to help to try and get better funding and earlier detection and training and ultimately to help people who experience chronic wounds to get what they need to get better."

*Name has been changed

Sarah's story demonstrates not only a lack of awareness of appropriate wound care, but also a systemic lack of understanding and utilisation of referral pathways to specialist care. Further, it highlights not only limited access to consumables, but also the extensive clinical and economic impact of delayed or inappropriate wound management and exceedingly high out-of pocket costs for patients.

3 Stakeholder Engagement

Tracey's Story

Tracey* is a 30 year old woman with previously undiagnosed lymphedema. Close to 3 years ago, Tracey received a cat bite to her right leg. She went to her GP who treated the wound with anti-bacterial dressings and a thin stocking (not compression) to hold the dressings in place. She was also prescribed antibiotics; however she was forced to stop due to an adverse reaction and the news that she was expecting her first child.

After attending her GP's clinic for two weeks, but seeing no improvement in the condition of her wound, Tracey's GP referred her to a specialist clinic within her local public hospital. Over the next 6 months, Tracey attended this clinic, however saw little improvement, and in fact was seeing further breakdown of the surrounding tissue.

Tracey was nearing the end of her pregnancy by this stage, and presented to a different public hospital with suspected labor pains, which turned out to be Braxton Hicks contractions. While at the hospital, a doctor noted the severe swelling in her legs, as well as the state of her wound. The doctor enquired if she had ever been diagnosed with lymphedema, which she revealed she had not. At this stage, it was suggested that she should be referred to the wound clinic within that hospital. By the time Tracey began attending this wound clinic, she had been suffering with her wound and the pain caused by the lymphedema for more than 6 months with no improvement.

For the last two years, Tracey has been attending the wound clinic and has seen a marked improvement in both the healing of her wound and the management of the lymphedema through best practice care and correct compression therapy. Although her progress has been sometimes slow due to a second pregnancy and her ongoing lymphedema symptoms, she is feeling happy with the care she is receiving and the rate at which her wound is healing.

"*When my legs aren't bandaged, I can't walk – the pain is excruciating.*

I would say I've spent several thousand dollars on treatment, probably between $2000 and $3000 over the last few years. Dressings are expensive and at times I've had to put off ordering dressings because of the cost.

The wound clinic I'm at now is great - I feel like if I'd come here at the start of my treatment, my wound would have been healed by now, and might have only taken a year, rather than still going."

*Name has been changed

Tracey's story demonstrates a shortfall in the diagnosis of underlying conditions that can hinder or worsen the wound healing process. It also highlights the failed referral pathways – although initially referred to a clinic for wound management, there was no service coordination to refer her on to more specialist care when her wound failed to heal. It also demonstrates the financial impact on patients and the significant effects on their quality of life when they cannot afford ongoing care.

4 Summary

Evidence-based wound care is cost-effective and improves patient outcomes but the majority of Australians with chronic wounds are not receiving best practice care. Unfortunately, widespread adoption of evidence-based practice is unlikely until the fundamental issues of health care provider education and training, access to wound expertise and specialist services, and reimbursement of wound care products and services are addressed.

The needs of the patient must be paramount. Both health service providers and patients require education and training, and we need to ensure adequate support for carers. The lack of reimbursement associated with contemporary wound management products means that patients with chronic wounds outside aged care facilities and the acute hospital system incur high personal out-of-pocket costs.

We need changes to policy and funding structures and high-level investment in wound care and policy development to improve affordability and support access to health professionals and multidisciplinary teams. We need to incentivize cost-effective evidence-based wound care and prevention and ensure public funding of evidence-based wound products. Finally, funding for wound care must ensure that providers are appropriately compensated while avoiding cost shifting between state and national health funding systems.

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