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# A wound management education and training needs analysis of health consumers and the relevant health workforce and stocktake of available education and training activities and resources

Innes-Walker K & Edwards H

## ABSTRACT

The goals of the first phase of a broader wound management education and training project were to determine the education and training needs of health consumers and the relevant health workforce and to identify and map the available education and training activities and resources. The methods used to collect the data included online surveys and one-on-one interviews of relevant patients and their carers. The project manager actively sought to engage with the key wound management leaders and advanced clinicians to gain their support and views on the priority education and training issues. The response to all data collection methods was pleasing, with over 500 responses to the general wound workforce online survey. The data supported the need for more wound management education and training and identified some particular topics of need, such as utilising wound investigations and understanding wound products, pharmaceuticals and devices. The occupational groups with the highest need appear to be those working in primary health care, such as practice nurses and general practitioners (GPs), and those working in residential aged care facilities.

The education and training stocktake identified a wide range of activities currently available, the majority being provided in a face-to-face format. The next stage of the project will be to form some clear and achievable priority action areas based on the available data. An online directory of wound management education and training activities and resources will be developed and further development will be undertaken on a knowledge and skills framework for the wound management workforce. Additionally, transfer of learning factors in the general practice environment will be assessed and strategies will be developed to improve the pre-entry or undergraduate wound management training within relevant higher education programs.

*Keywords: wound management, education, training, learning needs, consumers.*

### **Karen Innes-Walker\***

BSc, GradDip(N&D), GradDipEd, MHSc(N&D)  
Project Manager (Education), Wound Management  
Innovation, Cooperative Research Centre, Institute of  
Health and Biomedical Innovation, Queensland University  
of Technology, QLD, Australia  
Email k.inneswalker@qut.edu.au  
Tel (07) 3138 6207  
Mob 0403 479 820

### **Professor Helen Edwards**

RN, DipAppSc, BA(Hons), PhD, OAM  
Head, School of Nursing, Queensland University of  
Technology, Program Three Leader, Wound Management  
Innovation, Cooperative Research Centre, Institute of  
Health and Biomedical Innovation, QLD, Australia

\* Corresponding author

## INTRODUCTION

The Wound Management Innovation Cooperative Research Centre (WMICRC) funded a three-year education and training project which commenced in early 2012. The first phase of the project aimed at determining the education and training needs of health consumers and the relevant health workforce in wound management and to identify and map the available education and training activities and resources.

The broader project's goal is to improve wound management practice through the adoption of best practice, which is facilitated by high-quality and accessible education and training. An important aim of the project is to develop a plan, including a framework, to guide effective delivery of wound management education and training across Australia.

The target groups included in the broader project's scope are:

- Health consumers (patients/clients and their carers)

- Pre-entry (students) from relevant university and Vocational Education and Training (VET) sector programs
- The relevant occupational groups in the health workforce, including nurses, medical practitioners, relevant allied health professionals and other groups such as personal care workers, assistants in nursing and Aboriginal and Torres Strait health workers.

The full range of care settings is included, such as the acute, community and other primary care settings (residential aged care and general practice). All geographical locations are included. All wound types are included in the project scope, with greater emphasis being placed on chronic wounds. The education and training stocktake component encompasses Australian and international education and training activities.

The project is working closely with other related WMICRC-funded projects, other projects funded by external bodies and The Australian Wound Management Association (AWMA).

This paper provides a summary of the first phase of the project, this being to ascertain the education and training needs of the broader wound management workforce and health consumers as well as undertaking a stocktake of existing education and training activities. In addition, conclusions are drawn as to the priority groups on whom to concentrate efforts in the next phases of the project and other components of the broader project that will be receiving attention.

## METHODS

### 1. Needs analysis

The purpose of the needs analysis component was to determine the priorities for future wound management education and training planning for both the clinical workforce and health consumers.

Online surveys, with an option for hard copy completion, were developed for the general health workforce and advanced practitioners and leaders (experts). Both online surveys included a demographic section, wound management-related experience, education and training participation, preferences and barriers as well as a section asking respondents about their attitudes to wound management, research and education and training.

The general workforce survey used confidence ratings and lists of wound management-related topics to gather information about the respondent's education and training needs.

The experts' survey included questions about their own perceived wound management-related education and training needs, but included a section asking their views on which segments of the general wound workforce should be prioritised for future education and training planning and the main topics that these groups require.

A range of strategies was used to distribute information about the project, including profession-specific e-newsletters, through organisations' staff emails and newsletters, attendance at a national general practitioners' (GP) conference and on various websites and

social media sites. Upon request, hard copy surveys with stamped, self-addressed return envelopes were distributed. The surveys took approximately 15 minutes to complete.

One-on-one interviews were used to gather information from health consumers and/or their carers. Interviews took between 15 and 40 minutes and included questions about their wound type, history and healing status. They were also asked about their involvement in treatment decision making and self-management as well as any education they had received or would have liked to have received and their preferences regarding the format of receiving wound education. Some questions were included to gauge their attitudes towards ongoing wound management research and education for health workers.

Health consumers were recruited through various wound clinics and from the client base of the Royal District Nursing Service in Melbourne. Interviews were conducted either face-to-face or by telephone. The data were then entered into the online survey tool by the project manager.

### 2. Stocktake

The purpose of the stocktake was to identify and map the current wound management education and training activities and resources, targeting the wound workforce and health consumers, both nationally and internationally.

A combination of an online survey and individual interviews was used to gather the data for the stocktake component of the project. Prior to commencing the data collection phase the project manager used a spreadsheet to record the various wound management education and training activities or resources available.

The online survey included questions on the learning approach used, target audience, wound types covered, learning objectives, assessment and evaluation approaches as well as costs and any articulation/accreditation details.

## RESULTS

Overall the response levels were very pleasing, with over 500 respondents, from across Australia, to the general workforce survey and over 60 experts participating. Health consumers proved to be the most difficult group to access; however, 23 individual interviews were undertaken with some very important information gained. The stocktake survey attracted over 30 respondents and several others will be contacted once the framework is developed for the online wound education and training directory.

### 1. Needs analysis

#### 1.1. Wound workforce

Within the overall workforce cohort most occupational groups were represented, with registered nurses comprising nearly 70% of the overall respondent group. Unfortunately no Aboriginal and Torres Strait Islander health workers responded, despite many attempts to access this workforce. All health care settings were well represented.

Over 90% indicated they currently provide wound care as part of their clinical practice, with skin tears being the most commonly managed wound. Most of the other listed wound types were reported to be managed regularly by over 40% of respondents.

Overall, the wound type they are least confident managing is mixed venous/arterial leg ulcers, followed by arterial leg ulcers. Figure 1 shows the relationship between the wound types reported as managed regularly and the lower confidence levels (that is, percentage reported as somewhat confident and not confident). It would be expected that for those wound types which are not seen regularly (such as burns) that confidence levels would be lower. It is notable, however, that the reverse does not seem to apply for venous leg ulcers and mixed ulcers.

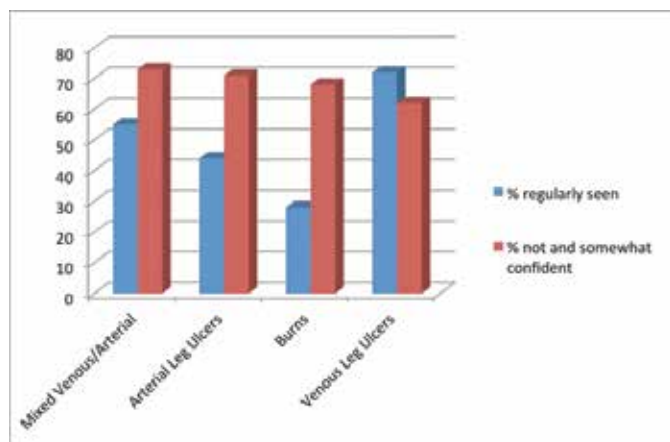


Figure 1. Whole workforce confidence and frequency

There was some variability amongst wound types that respondents were less confident managing when looked at by care setting; however, mixed venous/arterial wounds were consistently rated as somewhat or not confident about across most care settings (Figure 2).

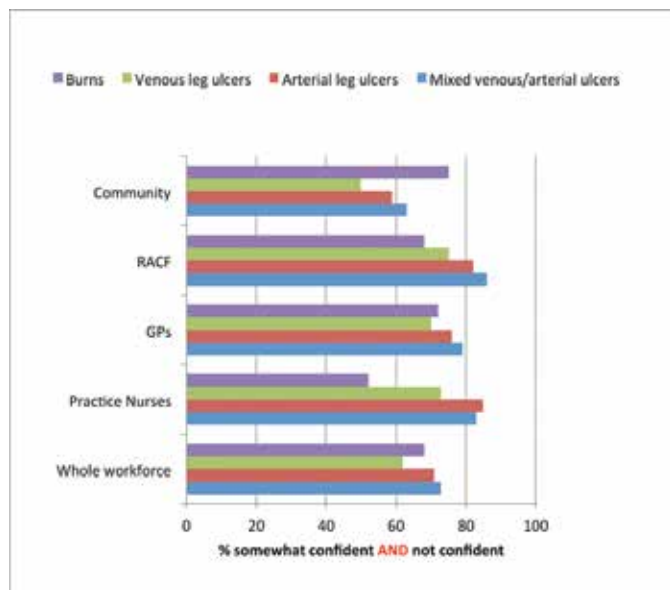


Figure 2. Lower confidence levels by wound types and setting

The standout topics of need were: using diagnostic investigations and wound products, pharmaceuticals and devices (Figures 3 and 4).

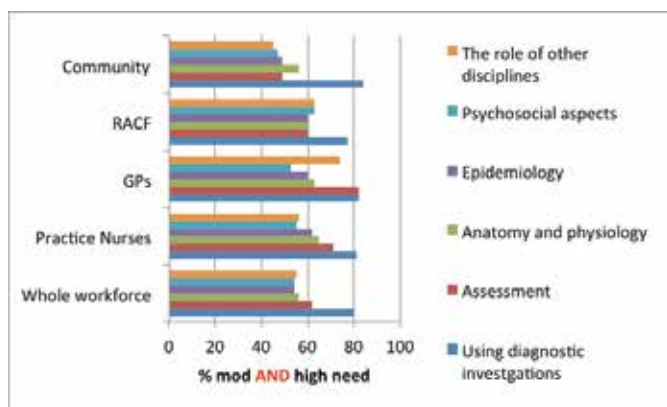


Figure 3. Wound education and training needs by setting — general topics

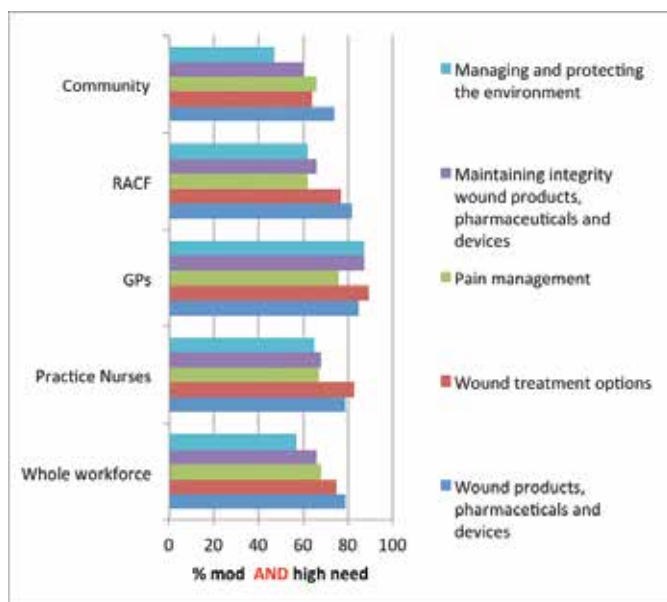


Figure 4. Wound education and training needs by setting — clinical topics

In the last 12-month period reading journals was the wound management education and training activity with the highest participation rate, followed by face-to-face professional development and reading relevant books or chapters of books (Figure 5). Face-to-face training and short in-services rated as the most liked methods of receiving education and training.

### 1.2 Experts

The experts were asked for their views on the priorities regarding the wound management education and training needs of the entire health workforce as well as their own needs. Most respondents were female registered nurses or nurse practitioners with extensive wound management experience and over half possessing relevant postgraduate qualifications.

They indicated that nurses and GPs working in the primary health care setting, particularly in regional and remote locations, had the

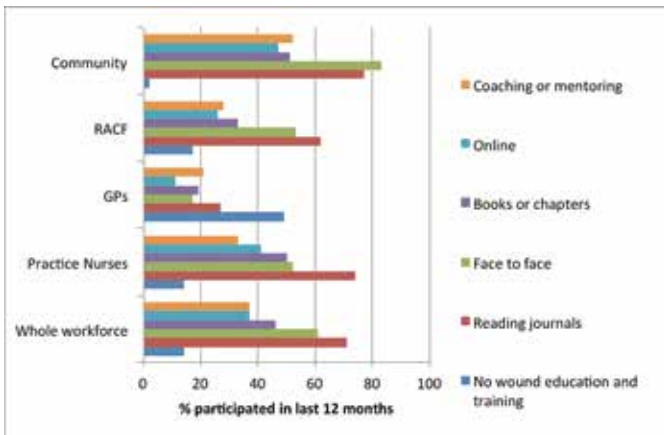


Figure 5. Wound education and training participation — activities

highest needs for wound management education and training. The basics of wound management was rated the area of greatest education and training need, followed by assessment, diagnosis and prevention.

They indicated that “mixed wounds” was the type of wound most needing to be included in education and training for the general wound workforce, followed by venous leg ulcers, pressure injuries and diabetic foot ulcers.

They were fairly satisfied with their own opportunities to receive education and training, but did specify a need for more education

and training around the topics of diagnostic investigation and interpretation, advanced assessment and diagnosis and diagnostic techniques.

### 1.3 Health consumers

Health consumers were asked about their wound history, educational information received as well their views on education needs of themselves and those involved in their wound management.

A total of 23 health consumer interviews were undertaken, with approximately the same number of men and women. Most were aged 60 years and older, with the majority living in Queensland and smaller numbers from Victoria and NSW.

Fifty per cent of the health consumers had a venous leg ulcer, with arterial leg ulcers, mixed venous/arterial ulcers, surgical wounds and pressure injuries also represented. Interestingly, most participants were unsure of their wound type, requiring them to check with their wound management provider. In most cases their wounds were currently nearly healed or healing and the patient or their family did not play a role in managing the wound.

Most supported the role of research, education and training in improving wound management and some talked about (mostly previous) experiences where they believed their wound management was suboptimal and many felt their current wound management provider had more knowledge and skill than others




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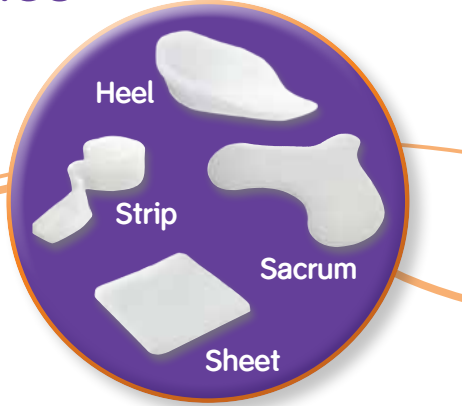


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previously involved. “Don’t feel like they get enough. When seen by other doctors, e.g. in Sydney, they don’t seem to know much about wounds”.

Many reported not receiving any form of education relating to their wound. Some of those currently attending a wound clinic said they had received a brochure from the clinic but nothing from previous wound management providers.

The question related to the main areas of need for education materials for themselves was met with varying responses, from unsure to quite specific requests. Several mentioned the need for more information on dressings, different treatment options and healing time frames.

In terms of the education needs of wound management providers, many respondents found it difficult to be specific; however, several did indicate that there was a gap in the knowledge and skills of many health care providers ... an example is “at other places, my management has been ‘trial and error’ whereas at the (current specialist wound clinic) clinic I feel there has been a plan”. In this case, the respondent wondered had he come to the wound clinic earlier if he could have prevented having his other leg amputated.

Interestingly, more than half those interviewed did not use a computer or the internet. Most preferred hard copy brochures or handwritten information as sources of education.

## 2 Stocktake

A wide variety of education and training activities was captured by the stocktake survey, ranging from pre-entry training courses through to those targeted at the existing workforce and postgraduate master’s programs. Over 90% listed registered nurses as the primary target audience, with enrolled nurses being the second highest primary target audience. Only six (27%) of the activities captured listed patients/health consumers and carers as the primary target audience.

Pressure injuries were the wound type most often included in the activities, with all of the other listed chronic wound types covered by over 85%. Burns were listed as being included in only 58% of activities.

The *AWMA Minimum Criteria for Content* document was considered in the development of over half of the activities captured; however, nearly one-quarter of respondents were unsure if this had been considered. Nearly 40% either were accredited or articulated to other programs, again with 12% of respondents being unsure.

Nearly 90% included face-to-face delivery as one of the learning approaches used. The next most popular approach was professional support methods such as mentoring, coaching or supervision (58%). Nearly 40% included formal assessment and a similar number did not have any assessment of learning.

## DISCUSSION

The goals of stage one of the project were to determine the education and training needs of health consumers and the relevant health workforce and to identify and map the available education and

training activities and resources. The data provide an indication of the priority areas relating to workforce and health consumer education and training needs. All of the occupational groups represented appear to have wound management education and training needs. Registered nurses and GPs, followed by enrolled nurses appear to be the highest priority groups; however, it should be noted that registered nurses made up nearly 70% of total respondents and hence will influence the results. The stocktake data indicate that there is currently a good range of education and training activities targeting nurses, with a smaller number specifically targeting GPs.

Health consumers appear to have a need for more relevant information and the form of delivery of this information needs to recognise that a significant proportion prefer hard copy information rather than online resources. The limited data available from health consumers indicated that there is a lack of high-quality, consumer-focused hard copy education materials being disseminated, particularly in the primary health care environment. The stocktake did reveal some good-quality health consumer information; however, most of what was found was online or linked to specific projects or services.

The data from the experts and overall workforce surveys suggests that the priority care settings requiring wound education and training are primary health care, followed by residential aged care and community/domiciliary. Several large community/domiciliary health services conduct wound management education and training for their staff. Smaller community/domiciliary services may not have the same access to high-quality wound education and training activities.

Not surprisingly when considering the stages of practice, the early career stage was rated by the experts as the highest priority group for requiring wound education and training, followed by the pre-entry or undergraduate stage. Data are not available on the extent to which wound management is covered in graduate nursing programs and GP training programs and this, along with a focus on the pre-entry or undergraduate wound management education, will be explored in stage two of this project.

The experts also indicated that a priority should be placed on the rural and remote health workforce receiving wound education and training. As mentioned above, Wounds West is undertaking a WMICRC-funded Rural and Remote Wound Management Education Program and they will be a valuable stakeholder to provide advice on additional strategies that could be implemented for this group.

The data on most-needed topics should assist wound management educators in planning their learning activities. The topics of highest need include: using diagnostic investigations, including biochemistry, microbiology, imaging and a range of other investigations; wound products, pharmaceuticals and devices; wound treatment options; assessment techniques; pain management and anatomy and physiology.

One of the challenges for the next part of the project will be making sense of the priorities above and packaging the various components

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to guide the next stage of the project. An action plan for stage two of the project is required.

It appears from the information obtained in the stocktake survey that “on paper” these priority elements are being addressed by the current education and training activities. What is less clear is whether the groups most at need are accessing the available education and training activities and for those who are participating in education and training activities if the training is addressing their needs and if they are transferring the learning into clinical practice. If they are not accessing the available activities, is this because they do not know that they exist, and/or are there other barriers, such as cost, lack of support in the workplace, lack of time and motivation, geographical issues or not suiting their learning style preferences?

Although this project cannot answer all of these important questions, it aims to provide more information around the transfer of learning factors in the general practice environment and it is hoped that the development of a wound management education and training online directory will assist with the accessibility issue.

## RECOMMENDATIONS

The first phase of the broader education and training project has been successful in gaining information on the wound management education and training needs of the workforce, with the notable exception of Aboriginal and Torres Strait Islander health workers. The data, whilst skewed towards the nursing workforce, provides an insight into the significant need for more education and training in this area.

Although the sample size of health consumers or carers was less than anticipated, some valuable information about the educational needs and preferences was gained. The project has also been able to establish some priorities in terms of occupational groups, settings of care, stage of practice, wound types and educational topics.

The stocktake component of the project identified a range of learning activities. It is recognised that this is only a subset of what is actually available but provides a basis for the planned online directory, which will be dynamic and we hope will be enlarged and improved over time.

The next stage of the project will require a strategic planning approach to address identified education and training priority areas and gaps. This will involve focusing on groups such as pre-entry and early career professionals, health consumers and the primary health care workforce.

Further relationship building with key stakeholders, such as Medicare Locals, will be undertaken in order to increase access by the primary health care workforce to wound management education and training activities. The development of an online directory of wound education activities as well as a range of point of care resources, such as online and application-based resources is planned.

Further development and refinement of the Wound Education Framework will be undertaken, linked in part to the credentialling work currently being undertaken by AWMA.

In addition, the transfer of learning sub-project that is investigating factors affecting the transfer of wound management learning of GP practice nurses into practice will provide valuable information to guide future learning methods to enhance wound management in this setting.

## ACKNOWLEDGEMENTS

This project was funded by The Wound Management Innovation Cooperative Research Centre (WMICRC).

Sincere thanks to the WMICRC Education Advisory Committee, wound researchers, experts and wound education and training providers for their valuable guidance and advice.

Thanks also to those people who gave up some of their time to complete the various online surveys and particularly the health consumers who gladly participated in the one on one interviews.

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