Collaborating to improve pressure ulcer prevention practices: the South Australian experience

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Abstract

An examination of the organisational uptake of the Australian Wound Management Association's (AWMA) *Guidelines for the Prediction and Prevention of Pressure Ulcers*[1] in metropolitan hospitals across Adelaide identified that many were having difficulties implementing the recommendations, resulting in a continued high incidence and prevalence of pressure ulcer rates.

As a result, the South Australian Hospitals Safety and Quality Council funded a project to support organisations implement and evaluate local evidence-based prevention and management frameworks. Two project officers facilitated the process, bringing organisations together at regular intervals to share successes and stories and to learn from experts and from each other in order to identify strategies for each phase of implementation. An evaluation at the completion of the project identified some gains by all organisations and all had developed strategies to continue the work into the future.

Two participants' stories are described here to demonstrate the outcomes and achievements gained from organisations collaborating and supporting each other to achieve organisational change. Whilst it is too early to demonstrate reductions in prevalence rates, the project was successful in the goals of the collaborative, ensuring that all participants had truly begun the task of implementing and evaluating robust and comprehensive evidence-based prevention and management frameworks across the continuum of care.

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Introduction

The use of collaboratives and 'breakthrough methodology' to improve clinical practice has been gaining momentum across the world since the mid 1990s when the concept was first conceptualised by Paul Batalden and Don Berwick from the Institute of Health Care Improvement in the United States of America (USA)[2]. Using this improvement methodology, this group has worked with numerous organisations (both within the USA and across the world) to implement significant change, both organisationally and across systems of care.

Three criteria determine if a specific area of practice has the potential for improvement using this methodology:

- Current prevailing practice deviates from the best scientific knowledge.
- Improvements would produce clearly positive results by reducing costs and improving quality.
- The possibility of breakthrough improvement has been demonstrated by at least some 'sentinel' organisations[2].

An environmental scan in 2003 of the extent to which metropolitan hospitals in South Australia had implemented the AWMA pressure prevention guidelines suggested that hospitals were having difficulty in doing so. Constraints to sustain implementation of pressure prevention guidelines within acute hospitals are found in the literature; they include such issues as insufficient support surfaces, lack of in-service education, knowledge, time and staff, and, lastly, financial constraints [3-5]. These issues were echoed by hospitals responding to the survey. An analysis of their responses also indicated that the:

- Framework was not present across the entire continuum of care (only general wards).
- Assessment of risk only occurred on admission.
- Equipment in use was scarce and, for some organisations, was in contradiction to best practice recommendations.

The outcomes of the environmental scan identified deviations from the prevailing knowledge, and recent work suggests that supported implementation of the AWMA guidelines could result in a decrease in prevalence rates [3]. Collaborative methodology has been used previously within Australia as an appropriate and effective method of reducing pressure ulcer rates; a collaborative of 21 health organisations, funded by NSW Health, explored prevention frameworks and reported some success [6]. Therefore the South Australian Hospitals Safety and Quality Council determined that this area of practice may benefit from the formation of a collaborative.

In line with the primary health care focus of the South Australian Generational Health Review, invitations were extended to both acute, community and residential care facilities within both metropolitan and regional areas; 15 organisations accepted the invitation. The following sections describe the process of the project and the experience from the perspective of the project team and two participants.

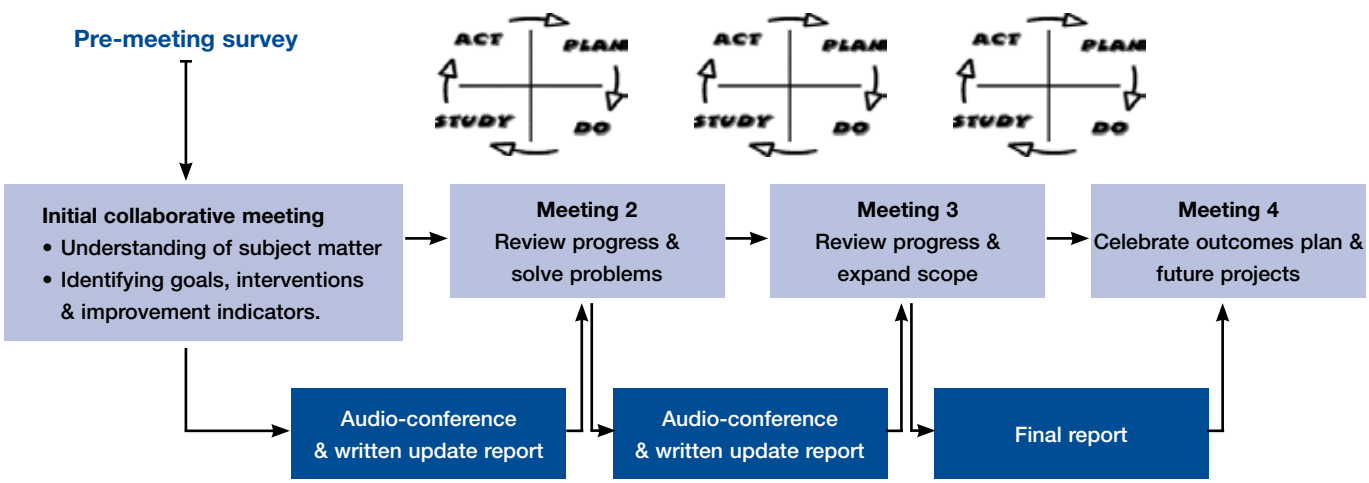
Method

Collaborative methodology

Collaborative breakthrough methodology is designed to help organisations close the gap between actual and best practice by creating a structure in which interested organisations can easily learn from each other and from recognised experts in topic areas.

In this study, organisations committed to working over a period of 9 months – alternating between face to face meetings and local action and evaluation periods. Each face to face meeting provided guidance and instruction in the theory and practice of improving performance in pressure ulcer prevention and management. These meetings also functioned as a milestone along each organisation's own individual path of improvement, with each team reporting on their methods and results. The group also collectively reflected on lessons learnt and provided social support and encouragement for further change. Participants also received the benefit of direct access to State and national experts in the field at these meetings. Communication and communal support was also provided by regular teleconference calls, frequent written dialogue and on-site mentoring visits by the project team. A diagrammatic representation of the breakthrough collaborative methodology is presented in Figure 1.

Figure 1. Diagrammatic representation of the breakthrough collaborative methodology.



The main goals of the collaborative were to:

- Achieve 100% compliance with guidelines for assessment, prevention and management of pressure ulcers.
- Develop a process to monitor the effectiveness of the pressure ulcer prevention and management programme for 100% of the participants.

Participating organisations

Letters of invitations soliciting participation within the collaborative were forwarded to Directors of Nursing of both public/private metropolitan and country organisations. A number of residential care facilities were also approached. Fifteen organisations accepted the invitation, though three resigned during the course of the collaborative due to organisational resource issues. The organisations listed in Figure 2 participated throughout the collaborative. Participating organisations received a small payment for their participation – $1,000 for administrative costs and a further $1,000 to support the accommodation costs of country participants.

Baseline data

Prior to commencement, all organisations were required to complete a comprehensive environmental scan of their organisation examining all components of a pressure prevention and management framework in order to identify potential opportunities for improvement. This scan required organisations to consider the:

Figure 2. Participating organisations.

- Royal Adelaide Hospital
- Repatriation General Hospital
- Modbury Hospital
- The Queen Elizabeth Hospital
- The Lyell McEwin Hospital
- Gawler Health Services
- Central Yorke Health Service
- Bordertown Health Service
- Naracoorte Health Services
- Gumeracha Hospital
- Kingston Health Service
- St Margaret's Rehabilitation Hospital
- Whyalla Hospital & Health Service

- Risk assessment tool, processes and knowledge of the tool by staff.
- Current prevention practices in use from the point of admission to discharge.
- Pressure redistribution equipment in use, including consideration of staff knowledge of equipment use, accessibility of equipment and purchasing plans and processes.
- Management of pressure ulcers.
- Method and level of patient involvement in the prevention of pressure ulcers.
- Monitoring and surveillance processes in place, including the identification of any definitions in use.
- Staff education programme content.
- Methods of communicating information of pressure risk and management to other organisations.

It was felt that organisations needed to complete this work prior to the first face to face meeting in order to compare their own organisation's framework with best practice and to identify their local priorities for practice improvement.

Overview of the programme

Regular contact is an integral component of this method of quality improvement. It works to provide continued impetus for change and action as each organisation is reporting the progress of their work to others on a monthly basis. As stated earlier, the programme was composed of both face to face meetings with contact by phone and the provision of monthly reports.

The project team also provided additional support to organisations (where required) by the completion of point prevalence surveys both at the beginning and end of the project. The presentation of learning sessions to staff and the facilitation of a number of workshops examining the effectiveness of pressure redistribution equipment in use, using pressure mapping technology, were also offered.

Learning modules

The goal of the collaborative was not the conduct of research but the implementation and evaluation of interventions in a pilot area by 'next Tuesday', the effects of which could be monitored and evaluated. Programme topics therefore needed to incorporate not only information on the various components of a pressure ulcer prevention and management framework, but also clinical process improvement methodologies.

As many participants had not previously been involved in completing clinical practice process improvement projects before, a great deal of time was spent initially describing collaborative methodology and re-affirming the need for baseline measurement to serve as a point of comparison post introduction of change. It must be acknowledged that this concept was quite foreign to many and may not have been achieved to the extent required or described in collaborative literature.

The second focus within the face to face meetings was the presentation of the components of a pressure prevention and management framework and discussions regarding barriers to organisational implementation. A number of clinical experts were used to provide this information to the group. These experts also provided invaluable advice and support to members along the journey. Table 1 identifies the topics that were explored by participants at each face to face meeting.

Table 1. Programme topics reviewed at face to face meetings.

Meeting	Program topic
Meeting 1	• Collaborative methodology • Engaging clinicians • Consumer participation in pressure ulcer prevention • Evaluating *Australian Clinical Practice Guidelines for Pressure Ulcer Prevention* • Monitoring prevalence and incidence
Meeting 2	• Clarifying collaborative methodology • Components of a pressure prevention framework • Pressure prevention equipment • Wound assessment and management • Impact of cultures on change • Measurement indicators
Meeting 3	• Development of an organisational audit protocol • Assessing the sustainability of projects • Considering organisational 'roll out' of projects • Assessing team effectiveness
Meeting 4	• Presentation of outcomes • Benchmarking

Results

Organisational developments and outcomes

All organisations were successful in the implementation of a number of developments within their pilot areas, with most focusing on the development of robust assessment processes and its link to preventative action. This project was followed for many by a review of equipment in use and an evaluation of its effectiveness against the literature. Purchasing of enough equipment to manage the risk profile within organisations was a barrier to many; however, this analysis process provided the objective information necessary to lobby senior management groups and also external funding sources.

Staff and patient education was also a focus for many, with many collaborative members utilising a staging of ulcer education programmes (developed by the project team in collaboration with wound experts in South Australia) in order to heighten staff awareness of the complexities associated with pressure ulcer staging. The resultant developed tools and resources developed by collaborative members and the project team are available for use by other organisations and can be accessed from www.safetyandquality.sa.gov.au Table 2 provides an overview of the area of practice examined by collaborative partners and their associated outcomes.

An evaluation of the process

Participants were invited to complete an evaluation of the collaborative process at the completion of the programme. 100% of organisations agreed that the programme had been useful and provided a structure and method of examining organisational frameworks in a supported manner.

The opportunity to network and share ideas and developments with other organisations was welcomed and appreciated by all participants. However, it must be acknowledged that the time constraints to complete the project and the travel difficulties of some country members were barriers to full implementation and evaluation of their projects. All organisations recommended further collaboration between organisations.

Participant learning: the experience of two organisations

Organisation 1

The Royal Adelaide Hospital (RAH) is a large metropolitan

Table 2. Areas of practice examined by collaborative partners and outcomes.

Topic	% of organisations reviewing topic	Developments	Outcomes
Assessment	92%	• 65% introduced Braden risk assessment scale • Two developed peri-operative risk assessment tools and processes • Four reviewed processes and increased compliance	• On follow up audits, all organisations demonstrated an increase in number of patients assessed for pressure risk on admission
Prevention practices	23%	• Two developed decision-making tools, linking risk to actions • One reviewed nutrition management	• On follow up audit, 100% of patients had appropriate prevention strategies in place
Support surfaces	77%	• 50% developed decision making tools to support equipment choice • 40% reviewed accessibility issues	• 100% reviewed appropriateness of equipment in use • 100% increased usage of appropriate equipment • 50% developed submissions for future purchasing
Staff knowledge	100%	• 60% introduced education programme to support accurate staging of pressure ulcers • 90% developed generic overview education programmes	• On follow up audit, 100% of ulcers correctly identified by staff
Monitoring	92%	• Development of standardised point prevalence survey protocols amongst collaborative members	• 100% adopted survey protocol and developed monitoring programme

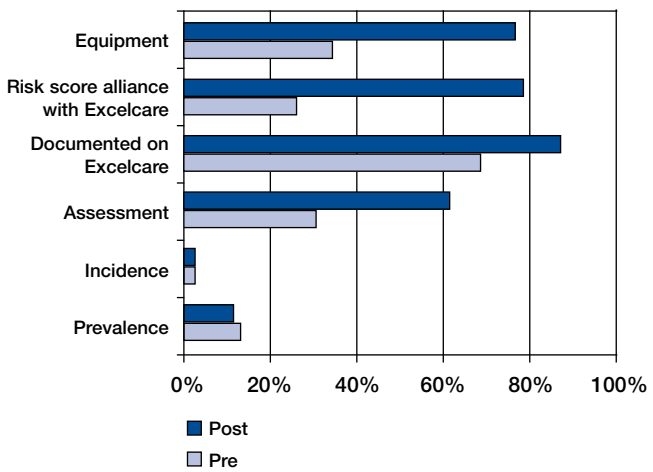
teaching hospital situated in the heart of Adelaide with approximately a 670 bed capacity. The hospital provides for inpatients as well as associated outpatient, outreach and community services.

The whole organisation was not included in the collaboration due to its size. There are seven different nursing services at the RAH; within each of these services there are four or five wards. For this collaborative, one ward from three services were chosen. The three wards included orthopaedics, gastrointestinal and a surgical ward. Each of these wards had different cultures and practices in regards to pressure ulcer assessment, prevention and management.

After the initial prevalence and incidence survey, the evaluation showed that the three wards completed pressure ulcer risk assessments differently. Ward 1 was documenting the risk score daily, but not on a medical record, Ward 2 didn't document risk at all and Ward 3 documented it on a separate admission sheet. To help achieve compliance, the ideal would be to provide a standard place for documentation on a medical record already in use. The level of risk assessment for Ward 1 was initially 31.5%; this increased to 100% within the first week and sustained this improvement. Ward 2 managed to improve their compliance from 0% to 81.5%. Ward 3 did not take up the recommended action of charting on the medical record. They continued to chart on their own assessment form on admission, and they managed to sustain their level of assessment between 63%-60%.

This collaborative assisted in improving the overall hospital assessment rate; however, it is noted that it is hard to break cultural influences. It was a bonus to include the three different areas within the hospital all undertaking assessment in different ways as it helped to highlight what actually worked. By sharing de-identified results with all three areas, they were able to ascertain for themselves the impact of their practice.

Figure 3. Results pre and post pressure ulcer study (PUPPIES) (%).



Being involved in the collaborative was a more powerful way of changing practice than if it were done as an individual organisation. Although the prevalence and incidence results are very similar, the effect of changing practice will take some time to filter through. The results for the pre and post survey at the Royal Adelaide Hospital are shown in Figure 3.

Organisation 2

As an acute care participant in the collaborative, the Queen Elizabeth Hospital utilised a pressure ulcer prevention tool which had been developed in-house and adopted throughout the general areas. The environmental scan identified two clinical areas for improvement – emergency department and operating theatres. The team formed with four members – two clinical champions from the respective areas, a team leader from education and a process driver from quality improvement. Due to other commitments, the emergency department clinical champion withdrew soon after the project commenced.

The first meeting of the collaborative introduced the groups to each other and the methodology to be utilised throughout the project. The activity of the group waxed and waned due to time constraints and being unable to meet on a regular basis. The subsequent meetings and workshops became important as a catharsis to discuss challenges, barriers and other issues that faced everyone. The sharing of resources developed within the collaborative also became an important factor so that the group did not 're-invent the wheel' as many of them had similar goals.

The collaborative project officers facilitated the teams, with the emphasis being on 'small bites' to meet individual goals; this essential methodology component encouraged teams to re-focus when they became overwhelmed by it all. Support from within the organisation was an important factor to implement clinical improvement. To use the analogy 'ask and you shall receive', this came true when the team requested the clinical champion be rostered one day a fortnight for the project. With this support, the common barrier of time was overcome to a degree.

The organisation continues to implement an evidence-based pressure ulcer prevention framework across the continuum using the collaborative methodology. Support from within the organisation has expanded, with the founding members

now joined by interested staff from across the nursing divisions. The collaborative was successful in providing a network of support and resources for all participants to continue to develop, reassess and evaluate their progress in implementing pressure ulcer prevention practices using the AWMA recommended guidelines.

Conclusion

A project funded by the South Australian Hospitals Safety and Quality Council provided an opportunity for 13 organisations to develop robust and evidence based pressure ulcer prevention and management organisational frameworks.

This project, utilising collaborative breakthrough methodology and supported by two part-time project officers, was successful in achieving its goals and all participants developed strategies to extend their frameworks across their entire organisations and continue to evaluate outcomes into the future. The outcomes of the project demonstrate clearly the importance and value of cross-organisational networks to support and promote organisational change.

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