

External Evaluation of the National Clinical Handover Initiative Pilot Program

February 2011

Final report

Acknowledgements:

In May 2010, the Australian Commission on Safety and Quality in Health Care engaged Grosvenor Management Consulting to undertake an external evaluation of the National Clinical Handover Initiative Pilot Program.

The evaluation was undertaken by a team comprising Susan Garner, Managing Consultant, Grosvenor Management Consulting, Dr Cathy Balding, Director Qualityworks PL, and Dr Heather Buchan, consultant to Grosvenor. Dana Cross and Jade Hambling, Grosvenor Management Consulting, provided consulting and administrative support to the evaluation team and assisted with the drafting and editing of the final report.

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Executive summary

In 2007, the Australian Commission on Safety and Quality in Health Care (the Commission) established the National Clinical Handover Initiative Pilot Program aimed at improving clinical handover through the development and trialling of practical, transferable tools for improving handover communication. This Initiative was linked to the World Health Organization (WHO) Action on Patient Safety (High 5s) project to address five areas of patient safety concern. One of the five areas related to clinical handover, and the Commission was Australia's lead technical agency for the 'Communication during Patient Care Handovers' area of the High 5s project.

A key aspect of the Commission's National Clinical Handover Initiative was the pilot program that is the subject of this evaluation. Fourteen public and private sector organisations were engaged, through a set of three competitive open tenders from 2007-2009, to develop and test clinical handover tools. The tools were developed based on workplace research and involved 53 hospitals in six jurisdictions across Australia, as well as primary and aged care services. Some projects had a strong research focus and involved University collaborations. The tools developed included: protocols for improving medical and nursing shift-to-shift handover; materials on using the briefing techniques (SBAR, ISBAR, ISOBAR, SHARED) at handover; tools for inter-facility transfers; online education tools; and materials on team communication.

Grosvenor Management Consulting was engaged to undertake an external evaluation of the pilot program in 2010. The evaluation of the program as a whole, and the evaluation methods adopted, acknowledged the diversity and complexity of the pilot projects. Details of the evaluation methods adopted are provided in Attachment A.

The evaluation was undertaken in three stages between May and December 2010:

Stage 1: Review of policy and program evidence at jurisdictional levels and for other stakeholders, such as Medical Colleges.

Stage 2: Analysis of pilot site outcomes, impacts, spread and sustainability using information derived from project reports to the Commission and interviews with key project and health service personnel.

Stage 3: Report on achievements of the National Clinical Handover Initiative Pilot Program.

The Terms of Reference of the evaluation were:

1. Review policy and program evidence
2. Assess barriers, enablers and key success factors in project implementation
3. Assess outcomes and impacts
4. Assess sustainability and spread
5. Report on the overall achievements of the pilot program
6. Suggest future directions
7. Develop an Implementation Checklist to guide future clinical handover implementation projects

The Executive Summary briefly reports on the findings for each of these terms of reference. The findings are described in more detail in the body of the report.

1. Assess policy and program evidence

An overview of the Australian clinical handover policy and program landscape shows significant developments since the implementation of the pilot program at a state and territory level. The approaches adopted by jurisdictions have varied in terms of their focus and specific priorities in relation to types of handover, the tools and processes trialled, and specific tools and guidelines supported to assist health care organisations improve clinical handover practice. Some have developed a specific clinical handover policy. Clinical handover in acute public hospitals has been the primary focus of this activity, although transfer of patients to and from community settings, including general practice, is emerging as a focus.

Peak professional health bodies, including the Australian Medical Association and Australian Health Care and Hospitals Association have a policy position in relation to clinical handover. However, the majority of medical and nursing colleges reported that they do not have a formal policy. Some have specific guidelines and recommendations and reference to clinical handover is made in relation to ongoing training of health professionals, particularly nurses. The recommendations arising from the evaluation in terms of ongoing clinical handover improvement were informed by the policy and program review.

2. Assess barriers, enablers and key success factors in the implementation of the pilot projects

There were a number of common themes across the pilot projects in terms of organisational and project characteristics that enabled and hindered successful change. These have been organised into four categories:

- the projects that were able to make their planned changes to handover practice were able to show that the tool or process was tailored for the specific handover environment, was practical and an improvement on current practice
- the organisational environment was supportive and conducive insofar as there was a good reason to change which was clearly articulated, the change was made an organisational priority and embedded in routine structures and processes
- successful change was driven by influential people, including clinical and non clinical leaders, key stakeholders and end users. A dedicated project manager to drive the change day-to-day appeared to be a key factor for success, and
- there was a demonstrable and positive outcome resulting from the change. This ranged from specific analysis of adverse event data showing reduction in patient harm to staff perceptions of improved efficiency and communication, role clarity and confidence.

Not all projects experienced each of these characteristics, but one or more of these enablers were required to drive successful change. Conversely, the absence of any of these enablers made it more challenging to implement the project interventions.

3. Assess outcomes and impacts

This pilot program had a substantial impact in terms of raising the profile of clinical handover and establishing a national impetus for change. It fostered innovation and expertise, and was viewed by most pilot sites as having delivered some sustained improvements in clinical care processes relating to handover. A number of excellent tools have been developed and tested and the project has made a practical and significant contribution to the handover literature and to jurisdictional approaches. The importance of effective change management has been reinforced, valuable lessons on spread and sustainability gained and the difficulty of creating the case for change and measuring handover effectiveness have been reinforced.

4. Assess sustainability and spread

Sustainability of the handover solutions trialled under the pilot program was defined, for the purpose of the evaluation as 'improvements embedded in structures, processes, routine practice and quality assessment'. Characteristics of handover improvements that were sustained included:

- a good news story
- links to other initiatives
- perceived as helpful by users
- perceived as efficient and beneficial by management
- exists beyond dependence on champions to be embedded in structures and processes.

Spread was defined as uptake of the clinical handover tools and resources beyond the original pilot sites. An understanding of the factors that lead to spread of the clinical handover solutions can inform future national and state and territory strategies and funding decisions for improving clinical handover practice. The evaluation showed that these factors included:

- being easily adaptable to other environments
- sponsored by a champion with external links
- active promotion and marketing of handover tools, materials and success, and
- promoted through organisational networks and/or state support.

Systems were not established by the pilot projects to objectively monitor or measure the ongoing sustainability and spread of the clinical handover tools.

5. Overall achievements of the pilot program

The tender documents for the pilot program stated the outcomes the program was seeking to achieve were:

- significant, sustained and measurable reductions in communication gaps
- reliable measures of impact on patient outcomes
- national learning on handover across the continuum of care
- standardised operating protocols for handover based on the best available evidence and designed to accelerate systemic improvements.

The program has been more successful in realising some of these objectives than others. The Commission's pilot program has significantly advanced national learning on handover across the continuum of care and has enabled testing and development of approaches to improving clinical handover, tools and standard operating protocols. States and territories have further developed policy and funding initiatives to drive improvement. These achievements have provided a strong base for the future work of the Commission in this area.

However the program has not delivered on its objective of achieving reliable measures of impact on patient outcomes. This is not surprising considering the international literature identifies the difficulties with clinical handover outcome measurement. The evaluation has also identified a need for further work to:

- build a strong case for change
- target improvement in specific handover situations

- tailor materials to help support improvement in the different handover situations and health care settings, and
- actively market the need for improvement and the resources available to support it.

The recommendations are designed to suggest ways in which the Commission may address these issues.

6. Future directions

The Commission has indicated that clinical handover will remain a priority for improvement for the foreseeable future and has released a draft National Safety and Quality Health Service Standard for Clinical Handover for implementation in 2011.

A number of issues identified through the evaluation are likely to have an impact on the Commission's ongoing clinical handover improvement efforts. These include:

- ensuring tools and resources are presented in ways that are appealing to clinical staff who need to lead change
- engaging with medical staff successfully
- incorporating a strong consumer voice and advocacy for clinical handover improvement into ongoing work in this area, and
- the future role the Commission will play in leading clinical handover improvement and influencing other agencies to adopt this as a quality and safety priority.

The recommendations reflect the key areas of work for ongoing development, promulgation and spread of effective clinical handover practice. They should help inform implementation of the National Safety and Quality Health Service Standards and help further raise the profile and spread of effective clinical handover as a key part of safe, high quality patient care.

This evaluation does not recommend investment in any particular type of clinical handover tool, standard operating protocol or approach. Both the evaluations undertaken by individual pilot projects and this current review show that there are some tools and approaches which are clearly perceived to be of value at the pilot sites and which have proved attractive to other sites and other organisations. In the absence of strong international research evidence, and without an agreed common set of process and outcome measures for clinical handover, or ongoing monitoring of performance and cost, there is little evidence to support one approach over others.

While the pilot program had a substantial impact in terms of raising the profile of clinical handover and establishing a national impetus for change did not achieve all it set out to do. This was because the initial objectives were highly ambitious. The evaluation has found that the Commission has built a strong platform for supporting the roll out of the National Safety and Quality Health Service Standard for Clinical Handover, as well as identifying areas for further work and investment in this key aspect of providing safe and quality care.

7. Implementation Checklist

Following the review of the pilot program an Implementation Checklist has been developed to provide a resource for future clinical handover initiatives. The individual pilot projects developed a range of practical tools and resources that are potentially useful for health care organisations to adopt for future clinical handover improvement activities. The Implementation Checklist does not replace these specific resources, but provides a framework for designing and undertaking clinical handover improvement activities. Findings from the evaluation have informed the ten-step Implementation Checklist which can be found at Attachment D. A summary version, also adaptable to other implementation activities, is provided following the recommendations outlined below.

RECOMMENDATIONS

Recommendation 1

That the Commission develop a set of process and outcome measures that could be used to assess effectiveness of clinical handover and to guide health professional and health service improvement efforts.

Recommendation 2

That the Commission identifies persuasive evidence that supports the case for change to current clinical handover practices. The Commission could also explore the potential to use other levers to increase motivation to improve current practice.

Recommendation 3

That the Commission identify a number of specific clinical handover situations where improvement is a priority and develop easy to find “change packages”. These “change packages” should contain information, tools and examples relevant for that particular situation and be targeted to be of direct relevance to the consumers and clinicians involved.

Recommendation 4

That the Commission identifies people who have led successful clinical handover improvement projects and formally harnesses their expertise so that they can provide advice and assistance to others.

Recommendation 5

That the Commission undertakes a needs analysis that focuses on the specific challenges experienced by rural and regional health service providers. It should also aim to identify the kind of assistance that would be of most value in helping services in these areas meet the future National Clinical Handover Safety and Quality standard.

Recommendation 6

That the Commission develops a national plan for spread of clinical handover improvement activities and resources. This should incorporate a set of indicators for monitoring to assess uptake of specific resources and effectiveness of the plan in general.






Recommendation 7






That the Commission continue to promote and support initiatives that lie outside of the State based public health service delivery system. As well as sectors such as general practice, community health and private health care, the Commission could work with groups whose support for clinical handover improvement could reinforce efforts of health care providers e.g. professional Colleges and Associations, registration and credentialing bodies.

Recommendation 8

That the Commission consider a number of areas for future investment in clinical handover by building on the outcomes of the pilot program and aligning future national investment decisions to state and territory policies and priorities for clinical handover.

CLINICAL HANDOVER IMPLEMENTATION CHECKLIST: SUMMARY**Ten steps to implementation of an improved clinical handover approach**

Ten Steps to Implementation	Elements
 1. Establish a compelling case for change	<ul style="list-style-type: none"> • Develop a brief, initial statement of the handover problem that will capture people's interest and attention, such as adverse events resulting from handover, conflict and stress resulting from poor communication • Provide the supporting information or evidence that will be most persuasive for each of the specific groups who need to support the project. Different brief summaries of the case for change may need to be provided for each target group • Use evidence that change can bring improvement • Specify why it is important to do something about this now – identify the tension/urgency for change
 2. Enlist influential leaders and champions	<ul style="list-style-type: none"> • Include senior clinicians who are opinion leaders with the groups whose behaviour needs to change • Canvass different professional groups for their views on current handover practice to identify those interested in supporting change • Ensure support of senior managers who can assist in gaining the necessary resources to make the project happen • Fully involve members of the group whose practice will need to change • Ensure leaders & champions will commit their time, effort & support to making change happen • Involve people who will work constructively with each other & the project team
 3. Determine governance arrangements	<ul style="list-style-type: none"> • Ensure governance arrangements for the project are consistent with those within the organisation where the project is taking place and at a level where the project will have a strong organisational profile • Link to the organisation strategic and safety agenda • Establish a reporting & accountability framework that is clear to everyone involved • Define the roles of each member of the project team and identify clear levels and types of delegation • Gain agreement on the way in which any conflict or disagreement will be managed • Identify how patient/consumer input will be incorporated into the project • If multiple organisations are collaborating, ensure the arrangements applying to each organisation are clear
 4. Establish goals	<ul style="list-style-type: none"> • Specify the desired changes and outcomes from the project • Link to organisational values and strategic goals • Identify the group or groups of people whose behaviour will need to change (the target group) • Specify the behaviour change that is required • Identify the measures that will be used • Set an initial target that is likely to be achievable within the resources available • Develop project timeline for goal achievement
 5. Analyse current	<ul style="list-style-type: none"> • Describe the current situation and the problem with current tools & practices • Identify the stakeholders • Map the processes involved • Identify the barriers and drivers to change.

Ten Steps to Implementation	Elements
<i>issues</i>	
 6. Develop the plan for change	<ul style="list-style-type: none"> • Further define specific goals and set targets for change • Select appropriate process & tools for the environment, the information to be communicated and the stakeholders involved • Identify how measurement of change will happen • Develop strategies to address barriers & enhance drivers for change, ensure strategies are tailored to the identified barriers • Identify expertise and project team required • Allocate budget and resources • Plan both <i>process</i> and <i>people</i> change
 7. Develop the change package	<ul style="list-style-type: none"> • Develop a package to communicate the change to stakeholders, using a mix of media, that informs and supports the implementation of the pilot, including: <ul style="list-style-type: none"> ○ Data and anecdotes to make the case for change ○ Benefits of change ○ Strength of evidence ○ Examples of where else has this worked ○ Specific examples for different professional groups ○ The handover tools and business rules of how they are to be used – a description of the new process, roles and responsibilities of handover ○ A measurement tool ○ Marketing materials.
 8. Pilot the change	<ul style="list-style-type: none"> • Pilot the change in one part of the organisation using short Plan Do Study Act cycles • Establish exactly who needs to do what to make the required change, and ensure that they are equipped to do so • Remove aspects of the 'old' way that are no longer required • Organise and implement the handover observation and quantitative and qualitative data collection and • Implement the new approach with regular evaluation and review to tackle and resolve barriers as they arise, • Make best use of the drivers for change and identify and celebrate the quick wins
 9. Sustain & spread	<ul style="list-style-type: none"> • Implement the plan for sustaining the new approach at the pilot site and spreading to other parts of the organisation in a phased approach over time: <ul style="list-style-type: none"> ○ Embed in organisational routines and structures ○ Highlight, market and reinforce the gains ○ Develop organisational policy/procedure ○ Link to other patient safety initiatives and agendas
 10. Measure, evaluate and improve	<ul style="list-style-type: none"> • Regularly evaluate the extent to which handover is conducted as per the policy, principles and business rules and achieves specified goals. • Measure: <ul style="list-style-type: none"> ○ degree to which handover process and tools are used ○ the extent to which improved handover has impacted on care processes ○ the extent to which improved handover has impacted on consumer outcomes • Regularly report the evaluation data to stakeholders and key committees. • Develop an ongoing system to remove barriers, enhance drivers and improve the handover process and tools over time

1. Introduction

1.1 Background

Grosvenor Management Consulting was engaged by the Commission in May 2010 to undertake the evaluation of the National Clinical Handover Initiative Pilot Program.

The objectives of the evaluation were to:

- undertake a post-implementation review of the processes and outcomes of the 14 pilot projects funded by the Commission
- identify key themes from the implementation of the projects
- evaluate the sustainability of the solutions adopted
- report on the national spread of the pilot program
- provide recommendations to policy makers that will assist them with decisions regarding resources allocation in the area of handover.

The knowledge emanating from the evaluation of the National Clinical Handover Initiative Pilot Program also has the potential to inform the implementation of the draft National Safety and Quality Health Service Standard for Clinical Handover and promote further establishment of clinical handover as a key patient safety tool.

National Clinical Handover Initiative Pilot Program

Clinical handover is one of a number of national priorities of the Australian Commission on Safety and Quality in Health Care (the Commission). In 2007-2009, the Commission invested in a National Clinical Handover Initiative Pilot Program to develop and test a number of approaches to improving clinical handover across a range of community, acute and aged care settings.

The expected outcomes of the National Clinical Handover Initiative Pilot Program included:

1. significant, sustained and measurable reductions in communication gaps in the continuity of care delivery by improving opportunities for sharing of patient information and facilitating timely transfer of responsibility and accountability between clinicians
2. reliable measures of impact on patient outcomes focusing on the information systems and communication processes that support handover
3. national learning on handover across the continuum of care (encompassing the public, private and primary care sectors) by enabling sharing of handover solutions and most importantly sharing of detailed evaluation of the sustainability and transferability of solutions, and
4. standardised operating protocols for handover communication (encompassing standardised solutions, tools and strategies). The delivery of these standardised protocols (henceforth to be termed as solutions) will contribute to Australia's participation in the WHO Patient Safety Alliance High 5s Initiative (Australian Commission on Safety and Quality in Health Care, 2007).

These solutions were expected to be based on the best available evidence and designed to accelerate systemic improvements and potentially lead to reduced risk of harm to patients in high risk clinical handover scenarios.

Fourteen pilot projects were funded from three funding rounds over the period 2007-2009, in the following four categories:

- specific handover processes

- electronic tools and processes that provide systems to support handover
- communication training and team training to support handover, and
- tools for ongoing observation monitoring and evaluation of handover.

This evaluation explored the success factors, spread and sustainability and implications for further establishment of clinical handover as a key factor in patient safety.

Context for the evaluation

Clinical handover is a complex issue, with risks specific to different types of handover such as inter-service and inter-shift, and is further complicated by patient complexity, varying attitudes to handover, a busy and stressful environment and lack of consistent handover methods employed within organisations and across the health care system.

Transfer of patients between health professionals and services is a high risk time when miscommunication, failure to relay critical information or a lack of clear responsibility for the patient can lead to serious adverse events. Poor clinical handover communication can have significant ramifications in terms of safety and quality in health care (NSW Department of Health, 2006). Poor or inadequate transfer of information has been found to be a key contributor to adverse events (Jorm, White, & Kaneen, 2009).

The literature confirms clinical handover as a high risk scenario for patient safety (Wong, Yee, & Turner, 2008). However, despite a marked increase in the literature on clinical handover over the past decade, there are still a number of knowledge gaps and a lack of agreement on the most effective handover methods.

The Commission identified clinical handover as a key plank in its approach to improving patient safety, as evidenced by:

- its investment in the 14 pilot projects funded under the National Clinical Handover Initiative Pilot Program
- the development of the 'OSSIE' Guide to Clinical Handover Improvement
- the focus on clinical handover in one of the ten draft National Safety and Quality Health Service Standards (the Standards), and
- inclusion in the Australian Safety and Quality Framework for Health Care.

1.2 Evaluation methodology

The nature of the National Clinical Handover Initiative Pilot Program and the handover tools and approaches piloted were diverse, although each pilot project aimed to provide practical approaches to improve clinical handover and thereby reduce the risk of patient harm.

The evaluation of the program as a whole, and the evaluation methods adopted, acknowledged the diversity and complexity of the pilot projects. The evaluation was undertaken in three stages between May and December 2010 and covered the following key elements:

Stage 1 – Review of policy and program evidence

- review of Australian policy and program evidence specific to changes in clinical handover since the inception of the National Clinical Handover Initiative Pilot Program

Stage 2 – Analysis of pilot site outcomes

- site visits to each pilot project site employing a range of qualitative and quantitative data collection and analysis techniques

- identification of the barriers, enablers and critical success factors of the pilot projects in implementing improved clinical handover approaches
- analysis of the outcomes and impacts, spread and sustainability of the pilot projects

Stage 3 – Report on the National Clinical Handover Initiative Pilot Program

- documents the overall achievements of the program
- documents the findings, conclusions and recommendations of the evaluation
- discuss the implications of the evaluation for future clinical handover activities
- provides an 'Implementation Checklist' about information about the implementation of clinical handover improvement

Evaluation methods and tools

The evaluation approach was intended to capture changes that have occurred through the adoption of the clinical handover tools and approaches in the different health care settings in which the 14 pilot projects were being implemented, including public and private hospitals, aged care and primary care settings.

The evaluation methods adopted aimed to improve our understanding of factors that promoted sustainability and spread of clinical handover processes adopted under the pilot program.

To support the evaluation, evaluation methods and interview tools were designed based on the development of an overarching program logic (Funnell, 1997).

The program logic provided a conceptual framework for the evaluation of the pilot program as a whole, acknowledging common elements across the 14 pilot projects, as well as their unique features. It supported the approach to the consultation with each of the pilot projects and to fulfil the objectives of the evaluation in as structured and robust a way as possible.

The framework identified how a hierarchy of inputs, outputs, outcomes and impacts related to the achievement of the National Clinical Handover Initiative Pilot Program's overarching objectives. Success criteria, key evaluation questions and data sources were identified from the program logic:

- to guide semi-structured interviews and group discussions with a range of stakeholders involved in the pilot projects
- to assess the outcomes and impacts of the pilot projects within the healthcare settings in which the clinical handover tools were adopted, and
- to assess how spread and sustainability was achieved beyond the original pilot sites.

It also assisted in identifying other relevant stakeholders with a related interest in clinical handover, such as the medical, nursing and professional colleges, and for guiding interviews with key stakeholders for the review of policy and strategies by states and territories.

The list of the key stakeholders consulted for the evaluation and the program logic framework and interview tools used for the evaluation are provided at Attachment A.

1.3 Report structure

The report is structured as follows:

Executive summary - summarises the overall findings of the evaluation, lessons learned and future directions

Section 1: Introduction - provides background information about the objectives of the pilot program and the approach adopted for the evaluation.

Section 2: Review of policies and strategies for clinical handover - Reviews national and state and territory policies and activities since 2005; documents the key system level developments and relationship to the World Health Organisation initiatives in this area. Examines the key similarities and differences between states and territories; discusses the key areas of focus, merging themes and implications for the Commission's role

Section 3: Descriptive overview of the National Clinical Handover Initiative Pilot Program - provides key information about the pilot program and the individual 14 pilot projects funded between 2007-2009

Section 4: Outcomes and impacts of the pilot program – assesses the barriers, enablers and key success factors in the implementation of the pilot projects; assesses the sustainability and spread of the pilot projects; examines how clinical handover improvement could be measured.

Section 5: Implications of the findings of the evaluation – key issues for the Commission

Section 6: Conclusions and recommendations – presents the key conclusions from the evaluation and recommendations for future action on clinical handover

Attachments A-E: provide further details about the pilot projects and the evaluation of the pilot program.

2. Review of policies and strategies for clinical handover

2.1 Scope of policy review for clinical handover

This section of the report describes the Australian clinical handover policy landscape for the pilot program over a time frame from 2005 to the present. It provides:

- an overview of the national policy context for clinical handover to show the links and key system level developments since 2005 and the relationship to World Health Organisation (WHO) initiatives in this area
- a 'snapshot' of state and territory clinical handover policy development since the pilot program
- national, and state and territory policies and activities to inform future implementation, sustainability and spread of clinical handover activities, and
- information about policies and guidelines from medical and nursing colleges and other peak bodies, where relevant.

In relation to state and territory policies and activities the section will cover:

- developments at a state and territory level
- areas of focus
- similarities and differences
- other key clinical handover activities, and
- what is in development and what has potential for the future

It does not critique policies and activities at an individual jurisdictional level, but explores how these policy developments might have an impact on future Commission initiatives.

2.2 Strategic overview of national and state and territory policies for clinical handover

Clinical handover was a national priority in Australia before the implementation of the pilot projects in 2007. In 2005 the former Australian Council for Safety and Quality in Health Care commissioned a review, undertaken by the Australian Resource Centre for Healthcare Innovations (ARCHI) of published and unpublished literature on clinical handover and patient safety. The review identified handover variables across three major domain areas:

- system design factors (i.e. 63% of studies reviewed)
- organisational cultural factors, and
- individual factors.

The literature review discussed:

- factors relating to clinical handover associated with patient safety
- the effectiveness of safety cultures within non-health industries, and
- the quality of evidence and gaps in research.

Since the establishment of the Commission in January 2006, part of the national focus links to the policy priority given to clinical handover by the World Health Organisation (WHO) under the High 5s initiative. The Commission has played a key role in relation to clinical handover under the High 5s

initiative which has informed the thinking underpinning the National Clinical Handover Initiative Pilot Program which is the subject of this evaluation.

Given the Commission's involvement through the WHO, this section of the report also provides background information about a number of WHO activities on patient safety that relate to clinical handover (see below).

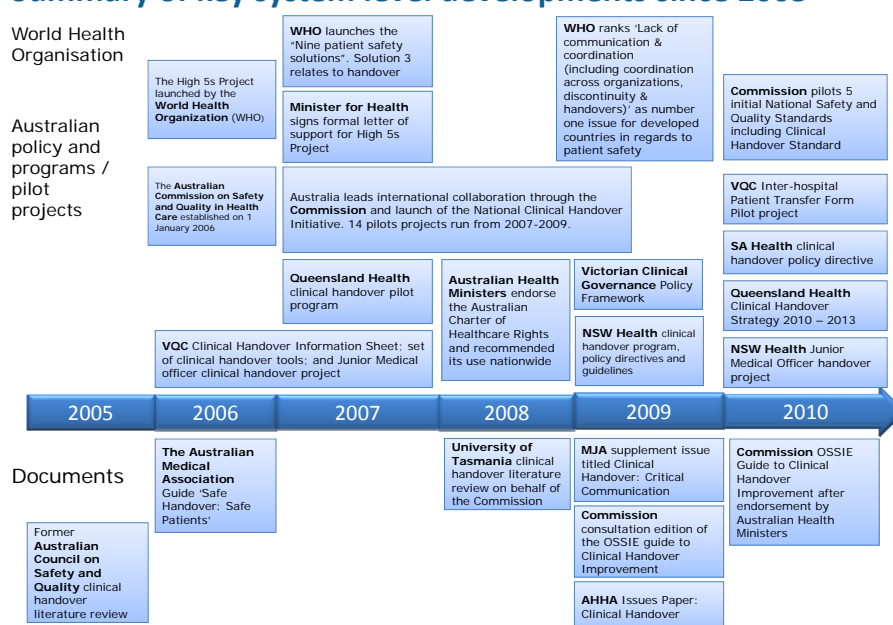
Australian states and territories have developed state based policies and funded clinical handover programs and pilot projects prior to, during, and since the implementation of the National Clinical Handover Initiative Pilot Program.

The key system level developments in Australia in relation to clinical handover are provided in Figure 1 which includes WHO activities, the work of the Commission, some of the key policies and programs initiated by states and territories and key documents on clinical handover over the period. Further details of these key system level developments are provided in the following section of the report.

A summary of the policies and activities at a national and jurisdictional level, and for peak health, medical and nursing professional bodies for clinical handover is provided in Attachment B.

Figure 1: Policy Timeline

Summary of key system level developments since 2005



2.3 World Health Organisation - Focus on Patient Safety

In 2006 the World Health Organization (WHO) launched the Action on Patient Safety (High 5s) project to address five areas of patient safety concern around the world through development of Standard Operating Protocols (SOPs). One of the five areas relates to clinical handover.

The High 5s project was initially launched with five member countries, which included Australia, and aimed to increase patient safety in the five areas within five years:

- concentrated injectable medicines
- medication accuracy at transitions in care
- correct procedure at the correct body site
- communication failures during patient handovers
- addressing health care-associated infections.

The Commission is Australia's lead technical agency for the High 5s project and has been involved since its inception. Australia, through the Commission is leading the 'Communication during Patient Care Handovers' area of the High 5s project.

The High 5s project now has 14 participating countries and organisations. The mission statement of the High 5s project is "to facilitate implementation and evaluation of standardised patient safety solutions within a global learning community to achieve measurable, significant, and sustained reductions in highly important patient safety problems" (World Health Organisation, 2010).

In 2008, the WHO High 5s Steering Committee decided that the initial focus would be on developing three of five Standard Operating Protocols (SOP). The remaining two areas for SOP development including, 'Communication during Patient Care Handovers', were deferred to a later time. It was understood that development of the handover SOP was deferred because it was thought that a single SOP for all types of handover would be difficult to implement due to the substantial variation in handover practices. However, Australia continued to work on handover improvement as initially planned, with clinical handover remaining one of the Commission's national priority areas.

Communication during patient care handovers also continued to be a priority of the WHO in other ways when in 2009 the Patient Safety Research publication named this the number one research priority for developed countries (World Health Organisation, 2009) because of the evidence identifying communication problems as the single biggest cause of the sentinel events in the hospital setting.

Also under the auspice of the WHO, the World Alliance for Patient Safety is responsible for developing the International Classification for Patient Safety (ICPS). The ICPS is a conceptual framework not a classification per se which contains ten classes of incident. Handover is classified as a process within the class, clinical administration (World Health Organisation, 2009).

The Commission reported back to the High 5s Steering Committee in March and October 2010 on the progress of the National Clinical Handover Initiative and provided the Steering Committee with a copy of the OSSIE Guide to Clinical Handover Improvement. It was agreed at the October 2010 meeting that developing a single SOP for all types of handover would not be possible, and therefore handover was removed as an area of SOP development from the High 5s Initiative.

2.4 The Australian health care policy and reform setting

This section of the report provides a broad overview of the development of policy in relation to clinical handover under Australia's federal system of government.

Australia has eight separate State and Territory Governments, with shared responsibility with the Australian Government for health care funding and delivery.

Given this, the policy review considers first the broader health reform agenda under the Council of Australian Governments, followed by a range of strategies and activities on clinical handover through the Commission and by individual State and Territory governments since the inception of the pilot program.

The evaluation also reviewed information from peak professional health bodies as part of this policy review.

2.5 National health reform under the Council of Australian Governments (COAG)

The national health policy reform agenda through the National Hospital and Health Reform Commission (NHHRC) provides a broader policy context for clinical handover and improving the safety and quality of health care.

The final report of the NHHRC in 2009 makes a number of recommendations about fostering continuous learning in our health system, although not specially in relation to clinical handover per se.

While clinical handover is not a specific focus of this broader health reform agenda through the Council of Australian Governments, it is noteworthy that NHHRC recommended the following:

“Recommendation 111: With a mission to measurably improve the safety and quality of health care, the ACS&QHC would be an authoritative knowledge-based organisation responsible for...monitoring and assisting in regulation for safety and quality:

- recommending nationally agreed standards for safety and quality, including collection and analysis of data on compliance against these standards. The extent of such regulatory responsibilities requires further consideration of other compliance activities such as accreditation and registration processes” (National Health and Hospitals Reform Commission, 2009, p.33);

“Recommendation 112: To drive improvement and innovation across all areas of health care a nationally consistent approach is essential to the collection and comparative reporting of indicators which monitor the safety and quality of care delivery across all sectors. This process should incorporate:

- local systems of supportive feedback, including to clinicians, teams and organisations in primary health services and private and public hospitals; and
- incentive payments that reward safe and timely access, continuity of care (effective planning and communication between providers) and the quantum of improvement (compared to an evidence base, best practice target or measured outcome) to complement activity-based funding of all health services” (National Health and Hospitals Reform Commission, 2009, p.33).

The Australian Government’s response to the recommendations arising from the health policy reform agenda through COAG, while not specifically directed to clinical handover per se, may have implications in relation to funding decisions across all sectors, which may impact on future clinical handover activities.

2.6 Commission’s strategies and activities since 2005

The Commission’s work on clinical handover needs to be seen within the context of health care policy at an Australian Government, and State and Territory Government levels.

In terms of the governance arrangements for safety and quality, the Commission plays a national role in leading and coordinating improvements in safety and quality in health care in Australia by identifying issues and policy directions, and recommending priorities for action.

The Commission was established in 2006 by the Australian, State and Territory Governments to develop a national strategic framework and associated work program that will guide its efforts in

improving safety and quality across the health care system in Australia. Clinical handover is one of the Commission's 14 current priority work areas.

Overall the Commission's role is to:

- lead and coordinate improvements in safety and quality in health care in Australia by identifying issues and policy directions, and recommending priorities for action
- disseminate knowledge and advocate for safety and quality
- report publicly on the state of safety and quality including performance against national standards
- recommend national data sets for safety and quality, working within current multilateral governmental arrangements for data development, standards, collection and reporting
- provide strategic advice to Health Ministers on best practice thinking to drive quality improvement, including implementation strategies, and
- recommend nationally agreed standards for safety and quality improvement.

As mentioned above clinical handover has been a priority in Australia through the former Council for Safety and Quality in Health Care prior to 2005, and through the Commission's involvement in the WHO High 5s Initiative since 2006.

The key strategies and activities of the Commission in relation to clinical handover are described briefly below.

2.6.1 National Clinical Handover Initiative Pilot Program

The Commission's National Clinical Handover Initiative Pilot Program, which is the subject of this evaluation, aimed to identify, develop and improve clinical handover communication across a range of care settings. The Commission funded fourteen pilot projects over 2007-2009. A description of the pilot program is provided in section 4.

2.6.2 Medical Journal of Australia supplement

In 2009 the Medical Journal of Australia, sponsored by the Commission, published a supplement issue (Jorm, White, & Kaneen, 2009) dedicated to clinical handover. The supplement contains eleven articles authored by pilot projects funded by the Commission under the National Clinical Handover Initiative Pilot Program, along with an article contributed by the Victorian Quality Council.

2.6.3 OSSIE Guide to Clinical Handover Improvement

The Commission developed the OSSIE Guide to Clinical Handover Improvement (OSSIE Guide) in parallel with the National Clinical Handover Initiative Pilot Program.

The OSSIE Guide was initially released as a consultation edition in March 2009. After revision taking into consideration three formal submissions and numerous informal submissions, the OSSIE Guide for Clinical Handover Improvement was endorsed by the Australian Health Ministers in April 2010 as a national guide to improving clinical handover practices at shift change in a hospital setting (Australian Commission on Safety and Quality in Health Care, 2010).

OSSIE is a mnemonic which stands for the following:

O = Organisational leadership

S = Simple solution development

S = Stakeholder engagement

I = Implementation

E = Evaluation and maintenance

The purpose of the OSSIE Guide is to:

- provide a change management framework for sustained improvement
- assist with the implementation of customised standard processes for handover
- improve the flow of critical information between healthcare professionals
- ensure patient safety and continuity of care (Australian Commission on Safety and Quality in Health Care, 2010).

2.6.4 Clinical Handover Literature Review

On behalf of the Commission, the eHealth Services Research Group at the University of Tasmania undertook an evidence-based clinical handover literature review in 2008. The literature review examined the evidence of effectiveness of improvement interventions in clinical handover. 110 publications were included in the review which focussed on identifying and analysing the clinical handover literature in relation to the following main themes:

- high risk scenarios in clinical handover
- interventions, critical success factors and effectiveness, and
- evidence gaps in clinical handover.

The review highlighted that:

1. the Australian Medical Association (AMA) Clinical Handover definition is not universally recognised and there is a lack of understanding of the term clinical handover
2. the number of high quality evidence based interventions that have a high potential for transferability remains low
3. that studies confirm “clinical handover is a high risk scenario for patient safety with dangers of discontinuity of care, adverse events and legal claims of malpractice” (Wong, Yee, & Turner, 2008, p.3).

2.6.5 Australian Safety and Quality Framework for Health Care

The Commission proposed a consultation draft of the National Safety and Quality Framework in 2009 after being tasked with the responsibility for its development by the Australian Health Ministers' Conference (AHMC). The final Australian Safety and Quality Framework for Health Care (the Framework) was released December 2010 following endorsement by Australian Health Minister's Conference (Australian Commission on Safety and Quality in Health Care, 2010).

The Framework's vision is to improve the safety and quality of health care in the Australian health system. It is intended to cover all health care settings and to inform government and organisations which regulate and advocate for patient safety and quality in health care.

The Framework is based on the principle that safe, high quality health care is always:

- patient focused
- driven by information
- organised for safety.

‘Minimise risks at handover’ is a component of the Framework. The Commission intends to continue to build on the Framework in coming years through the addition of guidance material and tools to support the use of the Framework.

2.6.6 National Accreditation Scheme

In April 2008 the Australian Health Ministers provided in-principle endorsement of the model national accreditation scheme proposed by the Commission. The first phase of implementation involved developing a set of National Safety and Quality Health Service Standards and planning for national coordination of accreditation (Australian Commission on Safety and Quality in Health Care, 2010).

In addition to drafting the standards the Commission is also progressing accreditation through the following activities:

- piloting the five initial National Safety and Quality Health Service Standards (this includes the clinical handover standard covered below)
- consulting on a Regulatory Impact Statement
- conducting accreditation research projects.

2.6.6.1. National Safety and Quality Health Service Standards

The Commission has developed ten draft National Safety and Quality Health Service Standards with the input of expert technical working groups. The objectives of the standards are to provide an:

“explicit statement of the expected level of safety and quality of care to be provided to patients by health services organisations and provide a means for assessing an organisations performance” (Australian Commission on Safety and Quality in Health Care, 2010, para.11).

The following five standards were initially developed and released for consultation in November 2009:

- **Governance for Safety and Quality in Health Service Organisations**, which provides the framework for Health Service Organisations as they implement safe systems
- **Healthcare Associated Infection**, which describes the standard expected to prevent infection of patients within the healthcare system and to manage infections effectively when they occur to minimise their consequences
- **Medication Safety**, which describes the standard expected to ensure clinicians prescribe, dispense and administer appropriate and safe medication to informed patients
- **Patient Identification and Procedure Matching**, which specifies the expected processes for identification of patients and correctly matching their identity with the correct treatment
- **Clinical Handover**, which describes the requirement for effective clinical communication whenever accountability and responsibility for a patient's care is transferred.

The further five draft standards were released for consultation in 2010:

- **Partnering for Consumer Engagement**, which creates a consumer-centred health system by including consumers in the design and delivery of quality health care
- **Blood and Blood Product Safety**, which sets the standard to ensure that the patients who receive blood and blood products are safe
- **Prevention and Management of Pressure Ulcers**, which specifies the expected standard to prevent patients developing pressure ulcers and best-practice management when pressure ulcers occur
- **Recognising and Responding to Clinical Deterioration in Acute Health Care**, which describes the systems required by health services responding to patients when their clinical condition deteriorates
- **Preventing Falls and Harm from Falls**, which describes the standards for reducing the incidence of patient falls in Health Service Organisations.

The initial five standards have been piloted in a two phase process. Twenty-seven health services across Queensland, Western Australia, Victoria, New South Wales, Australian Capital Territory and South Australia participated in Phase 1 with 12 of the organisations continuing to Phase 2. The pilot objective was to understand if:

- a) there is a shared understanding of the intent of the Standards
- b) the Standards are measureable.

A range of health services were involved including private hospital, public hospitals, day procedure centres, plastic surgery practices and dental practices. Phase 2 involved external assessment of organisations against the Standards.

The further five standards will also be piloted prior to seeking endorsement of the Standards in 2011 (Australian Commission on Safety and Quality in Health Care, 2010).

The Commission recently sought public comment on five additional draft National Safety and Quality Health Service Standards before piloting and final consideration by Health Ministers in 2011.

Additional information about clinical handover and related patient safety and quality activities can be found at the Commission's website¹.

2.7 State and Territory clinical handover policies and programs

The review of state and territory policies undertaken as part of the evaluation of the pilot program was largely based on publicly available information on clinical handover from various government websites and other sources made available during the evaluation. Follow up advice about the accuracy of the information about state and territory activities was sought in the final stages of the evaluation through members of the Commission's Inter-jurisdictional Committee.

Given the range and scope of activities on clinical handover across states and territories, this section provides information about key developments only. Further information about clinical handover and related programs and activities funded at a jurisdictional level should be sought from the agencies with current policy responsibility.

The state and territory information is provided in the following order:

1. Victoria
2. New South Wales
3. Queensland
4. South Australia
5. Western Australia
6. Tasmania
7. Australian Capital Territory
8. Northern Territory.

A table at Attachment C summaries the information provided below, along with relevant website addresses for resources about clinical handover that have been developed at a state and territory level.

¹ <http://www.health.gov.au/internet/safety/publishing.nsf/Content/home>

2.7.1 Victoria

Policy and governance arrangements for safety and quality in health care in Victoria at the jurisdictional level include the Victorian Department of Health and the Victorian Quality Council. As a consequence of Victoria's devolved governance structure, aside from obligatory requirements linked to funding arrangements and involvement in certain departmental quality initiatives, health services are largely responsible for establishing their own clinical governance structures and processes.

The Quality, Safety and Patient Experience Branch within the Victorian Department of Health is responsible for policy development, planning, resource allocation and monitoring of performance in relation to the systematic improvement of safety and quality in healthcare in Victoria.

The Victorian Government released the Victorian Clinical Governance Policy Framework in 2009. The clinical governance policy framework (the framework) provides a "coordinated plan of action for the department, key stakeholders and Victorian health services to develop the capacity of the health system to deliver sustainable, patient focussed, high quality care" (Department of Human Services, Victorian Government, 2009, p.1).

The 2009 Clinical Governance Policy Framework Guidebook acknowledges the Department's role and responsibility to facilitate development and disseminate resources, guidelines and tools and use exemplar sites to inform implementation strategies in clinical handover, as part of a suite of risk management measures (Department of Human Services, Victorian Government, 2009).

The Victorian Quality Council (VQC) was established in 2001 to:

- provide the Minister for Health with advice regarding the improvement of quality and safety of health services in Victoria, and
- advocate for continuous improvement of quality and safety across the broad health sector.

The VQC in its first two terms (2001-2004; 2005-2008) acknowledged clinical handover as a risk area and developed a focus on clinical handover prior to the establishment of the Commission and the funding of the Commission's pilot program.

In undertaking its role, the VQC consults with the Victorian Department of Health regarding priorities and strategies to align with Departmental work on quality and safety and with a range of recognised experts when developing projects and tools to assist health services implement quality and safety initiatives (Victorian Quality Council, 2010).

The Hospital and Health Service Performance division is responsible for governance, performance, acute funding and policy settings for public hospitals and health services across Victoria. Work relevant to clinical handover has been undertaken by a number of programs within this division.

The Acute Programs team leads policy development and program implementation and monitoring for acute services, in particular for medical inpatients and critical care, maternity and newborn services, surgical services and specialist clinics.

The Health Service Reform and Innovation program sets direction for reform and innovation work to align policies, programs and reform activities for health services. This program encompasses the four year (2008-12) Redesigning Hospital Care Program (RHCP), which has supported several hospitals to apply process redesign methodologies and implement strategies to improve handover communication and discharge processes.

VQC activities on clinical handover since 2005

Since 2005, the VQC has undertaken a range of activities to support improved clinical handover practice. In February 2006, the VQC developed a clinical handover information sheet outlining generic concepts which was circulated to health services in Victoria. Feedback from clinicians demonstrated that there was much interest in this area and a need to undertake further work to identify system improvements.

A survey was distributed to all Victorian public health services in April 2006 (The Victorian Quality Council, 2006), requesting information about:

- the types of clinical handover that are problematic for the organisation
- the range of activities undertaken to improve clinical handover
- suggestions for clinical handover project work.

Shift to shift, acute to community and inter-hospital transfer were identified in the survey as the highest priority areas at that time. Community to hospital, emergency department to ward and acute to sub-acute were also identified by service providers as a cause for concern.

Health services surveyed reported a range of activities undertaken to improve the effectiveness of clinical handover. Notably having a defined time and specific location for handover, involvement of senior clinical staff and a standardised format were reported most frequently as activities to improve the effectiveness of handover. This was consistent with the AMA guideline (AMA 2006).

Two main areas were identified in the survey for future project work:

- training in clinical handover and communication skills, and
- standardisation of clinical handover format and supporting systems such as guidelines and key performance indicators.

A set of standardised clinical handover tools was developed based on the outcome of a clinical handover workshop held on 29 November 2006. A pilot project, which was conducted in four health services, to trial the tools for shift-to-shift medical handover was completed in December 2007 (The Victorian Quality Council, 2008). The evaluation of the pilot project reported:

- the health services found the organisational readiness checklist and the suggested content for policy, guidelines/protocol and clinical handover useful
- the organisation checklist was a good tool for identifying gaps and priority areas for improvement actions in clinical handover practice
- the suggested contents of policy, guidelines/protocol and clinical handover templates provided a baseline for organisations to adapt and develop the content further to suit their specific needs, and
- the suggested key performance indicators were generally not considered useful due to the time frame and sample size.

During 2006-2007, the VQC, through the Victorian Travelling Fellowship program also provided funds that supported the Royal Children's Hospital (RCH) undertake the Junior Medical Staff (JMS) Handover project.

The lessons learned from the two VQC-funded clinical handover projects were reviewed and reported (McLean, 2008). The report identified that existing clinical handover knowledge and resources comprised:

- practical guidelines on the content, process and documentation of handover from RCH and the VQC
- tools to assist organisations in addressing handover
- useful suggestions for handover policy
- a strong understanding of the essential components of handover improvement processes:
 - widespread engagement and involvement

- measurement of handover
- sufficient resources for the effective local development and implementation of improvements.

Based on an analysis of gaps in the current body of knowledge and experience within Victoria at the time regarding clinical handover, the report also identified four potential future projects including:

- development of a Clinical Handover Mapping Tool for health care institutions
- production of a single set of Clinical Handover Improvement tools
- development of an electronic solution to documentation incorporated into HealthSMART
- adaptation and piloting of tools in other handover settings.

The handover tools piloted in four Victorian public health services² are available on the VQC website.

Current VQC activities on clinical handover

In its third term (2008-12), under its strategic priority of improving the patient journey, the VQC has continued work in support of improved clinical handover and specifically on the refinement and piloting of a paper-based standardised inter-facility patient transfer form (The VQC Inter-Hospital Patient Transfer Form Pilot Project), and also on improving team work and communication within health care settings (The Victorian TeamSTEPPS™ Pilot Project).

The VQC Inter-Hospital Patient Transfer Form Pilot Project is currently nearing completion. This project has involved the piloting of a standardised generic inter-hospital patient transfer form developed by the VQC's Patient Transfer Working Group. The form was piloted between 10 August and 7 November 2010 in four metropolitan and regional health services.

The project is now in the evaluation stage with a final report expected to be completed by the end of February 2011.

Following research conducted by the VQC and in addition to significant anecdotal evidence emergent from health services, the Department commissioned a study of current Inter Hospital Transfers, which are another element of the health system where quality clinical handover is essential. The report of this study was completed in 2010 and will inform ongoing improvement work on clinical handover practices.

As part of its strategic interest in supporting improved teamwork and communication in healthcare, in 2010 the VQC decided to trial TeamSTEPPS™ in five pilot sites across Victoria (3 metropolitan and 2 rural). The first "Train the trainer" workshop was held in November 2010.

Each pilot site is required to identify its own specific aims and objectives across a broad range of issues related to communication and teamwork rather than being confined specifically to improvement of clinical handover. VQC is providing some financial support to help pilot sites implement the program, which is expected to be completed and evaluated by the end of February 2012.

2.7.2 New South Wales

The governance arrangement for safety and quality in the state of New South Wales (NSW) resides in NSW Health which includes the New South Wales Department of Health, Local Health Networks and state health services and four state bodies with different roles including the NSW Clinical Excellence Commission, the Clinical Education and Training Institute, the Bureau of Health Information and the Agency for Clinical Innovation.

² Four Vic public hospitals, 3 metropolitan and 1 regional were funded under the program

The following section covers a number of strategies and activities in relation to clinical handover throughout NSW Health **Garling Inquiry into acute care services**.

In January 2008, the New South Wales Government announced the establishment of a Special Commission of Inquiry into Acute Care Services in NSW Public Hospitals, to be conducted by Peter Garling SC. The inquiry was established in response to adverse events in the NSW Health system including the death of Vanessa Anderson.

The Garling Inquiry provided a comprehensive assessment of the state of the NSW hospital system, and while broader than clinical handover, contained background and recommendations on this issue. A total of 134 of the 139 recommendations were accepted by the NSW Government.

The two Garling Inquiry recommendations related to clinical handover were:

- **Recommendation 55** (ward rounds with specialist and allied health staff), and
- **Recommendation 56** (handover: at bedside with mandatory information; time for in roster; written or electronic record).

The Garling report recommended NSW Health introduce a mandatory shift handover policy, which included, as a minimum requirement:

- that part of the handover is at the patient's bedside,
- sufficient time is allocated for handover,
- specific information is to be conveyed during handover, and
- that a written or electronic record be made of the handover.

The New South Wales Government response to the Garling Inquiry was outlined *NSW Health Caring Together: The Health Action Plan for NSW* (NSW Department of Health, 2009).

The Action Plan states that improved communication between staff and patients will result in better, safer care (NSW Department of Health, 2009). In relation to patient safety and clinical handover the Action Plan states:

“In a 24 hour period there will be three ward handovers of patient care which will be documented on paper or electronically. These patient care handovers will be further enhanced by regular ward rounds involving all those caring for the patient, including the specialist, the Nurse/Midwife in Charge, and relevant allied health staff. It includes measures that will be put in place immediately to help improve not just clinical care, but the environment in which that care is delivered, and the compassion and sensitivity with which it is delivered (NSW Department of Health, 2009, p.8).”

In 2009 NSW Health launched the NSW Safe Clinical Handover Program which aligned with the Garling Inquiry. All Area Health Services, the Children's Hospital at Westmead, Justice Health and the Ambulance Service of NSW developed an implementation strategy and governance for the Safe Clinical Handover Program.

Since the Garling Inquiry, NSW Health has developed a number of key policy documents, guidelines and toolkits to assist health services to improve clinical handover practice including:

NSW Health Guideline Term Changeover - Ensuring an effective handover of patient care (NSW Health, 2008). This guideline states:

“During the clinical year, there are a number of term changeovers which involve junior medical staff moving from their current clinical rotation to their next placement. During these changeovers, junior medical staff may move to:

- a different rotation but within the same hospital
- a different hospital in the same geographical location

- a hospital in a different geographical location” (NSW Health, 2008, p.1).

The guidelines are to ensure that patient care and patient flow are maintained by clinical teams during end of term changeover for junior medical staff and registrars.

New South Wales Health (NSW Health) Policy Directive: Clinical Handover - Standard Key Principles (NSW Health, 2009) mandates the implementation of a standard set of key principles for all types of clinical handover by all clinicians in the NSW Health system, regardless of a patient’s clinical diagnosis, location or the time of day.

The policy states: “Compliance with the standard key principles for clinical handover will improve the transfer of information, accountability and responsibility for patient care. Compliance with this policy will improve patient outcomes and experience” (NSW Health, 2008, p.2). Mandatory requirements of the policy cover:

- health service implementation
- health service evaluation, and
- training and orientation

The policy directive includes key principles for the safe and effective handover in the form of a toolkit and an evaluation framework with methods and responsibilities for the collection and reporting against the framework.

NSW Health has subsequently issued a number of key documents in relation to clinical handover:

- Implementation Toolkit: Standard key principles for clinical handover (2009)
- Safe Clinical Handover Program: Implementation Progress Report (2010)
- Improving JMO clinical handover at all shift changes: Implementation Toolkit (2010)
- Improving Junior Medical Officer (JMO) clinical handover at all shift changes. Clinician edition 2010
- JMO clinical handover at shift change: implementation, roles and benefits –DVD (2010)
- Junior Medical Officer clinical handover: Concept testing report (2010)
- Evidence-based literature review on Discharge, Referral and Admission – co-commissioned with the Australian Commission on Quality and Safety in Health Care (2010)

NSW Health commenced two other clinical handover projects as part of the Safe Clinical Handover Program which was launched in 2009:

- Junior Medical Officer (JMO) shift change project (2010) - which placed a strong focus on leadership and consistency of handover process at every shift change. This will be implemented state-wide in 2011, after being tested in six concept sites in 2010
- GP/ Facility handover project (2011)

All information relating to the NSW Safe Clinical Handover Program are freely available at: www.archi.net.au/e-library/safety/clinical/nsw-handover

NSW Health Services are required to report on progress on the implementation of the Garling recommendations under the themes of improving safety and creating better experiences for patients for each “Caring Together” action. Status reports are available on the New South Wales Health website³.

³ <http://healthactionplan.nsw.gov.au>

NSW Clinical Excellence Commission

The Clinical Excellence Commission is one of four organisations referred to by Garling as the “four pillars of reform”⁴ in his 2008 report on the Special Commission of Inquiry into Acute Care Services in NSW Public Hospitals (NSW Health, 2009).

Following on from the Institute of Clinical Excellence, the newly titled Clinical Excellence Commission (CEC) was established in 2004. The CEC is part of the NSW health system and supports and contributes towards the strategic directions outlined in the State Health Plan released in 2007.

The CEC is a board-governed statutory health corporation. The Chief Executive Officer reports directly to the NSW Minister for Health. The role of the CEC is to build capacity for quality and safety improvement in health services through training and education initiatives such as Clinical Practice Improvement and Patient Safety programs. The CEC forms a major component of the Patient Safety and Clinical Quality Program that was designed to provide a comprehensive quality improvement and patient safety program across NSW (Clinical Excellence Commission, 2010).

In its third report on incident management in the NSW public health system 2005–2006 the CEC reported on the results of root cause analysis and NSW electronic notification system (IIMS) data that communication factors contributed to 25% of incidents reported in the period:

“Communication – remains a major contributing factor to incidents and most commonly arises as an issue when a patient’s care is handed over between teams and facilities. It is critical that the patient’s condition and the treatment undertaken to that point, is properly communicated across boundaries and that all risk factors are identified and documented” (NSW Department of Health, 2006, p.15).

The CEC Communicating for Clinical Care project was trialled between October and December 2006. The trial focussed on multidisciplinary groups of staff, working in a patient care team, facilitated by ward/department level managers.

The aim of the Communicating for Clinical Care project was “to produce a range of teaching tools for use at the clinical unit and ward level, to teach and embed the knowledge, skills and behaviours in:

- communicating with patients and carers
- interpersonal communication principles and processes
- barriers to effective communication, including communicating across inter-professional groups
- formal documented systems of communication, and
- ‘Speaking up for safety’ regardless of status within and across disciplines” (Clinical Excellence Commission, 2010, p.1).

Three levels of evaluation of the project were undertaken and analysed by the CEC:

- facilitator workshops
- facilitator post education sessions, and
- participant post education session.

Program participants were also asked to complete a self-assessment to quantify their current practices in communication and their confidence levels when facing difficult communication situations.

⁴ Other bodies referred to in the Garling report included: the Institute of Clinical Education and Training; the Bureau of Health Information and the Clinical Innovation and Enhancement Agency

Since then, the CEC Clinical Incident Management Report (2009) identified the following issues associated with transfer of care:

- inadequate handover of information between treating teams
- transfer of patients after-hours or when the clinical team cannot immediately review them on the ward
- transfer of patients whose condition is unstable
- inadequate handover of information to the patient, family, GP or community supports at discharge
- delays in transporting patients between clinical units and hospitals (ambulance/hospital transport services)
- inability/delays in access to the most appropriate service (dependant on bed availability) (Clinical Excellence Commission and NSW Department of Health, 2009, p.18).

This CEC report referred to quality improvement projects in NSW focussed on strengthening and standardising clinical handover processes at health service level; the NSW Health policy directive Clinical Handover – Standard Key Principles (PD 2009_060) in September 2009; and the Hunter New England Health, ISBAR Revisited project funded under the Commission's pilot program to streamline the information provided to those taking over care and to keep the patient and family informed.

In January 2010, NSW Health implemented the CEC “Between the Flags” program in partnership with the Department of Health, CEC, clinicians and administrators. This program is designed to improve recognition of, and response to, deteriorating patients in NSW public hospitals. A NSW Health Policy Directive Recognition and Management of a Patient who is Clinically Deteriorating was issued in May 2010 to support implementation.

2.7.3 Queensland

Queensland Health Clinical Handover Pilot Program

In 2006 the Queensland Health Patient Safety Centre funded the Clinical Handover Pilot Program (QLD Health, 2008). Of the 24 pilot projects submitted, 7 projects were chosen. The 12 month pilot projects commenced in November 2006 and were due for completion and submission of final evaluation reports in November 2007.

The aim of the pilot program was to bring together clinicians interested in improving the effectiveness of handover through implementing evidence-based interventions at individual, team and system levels. The program informed the development and implementation of a 2010-2013 Clinical Handover Strategy for Queensland Health (outlined below).

Seven sites were selected for this program focusing on an interface where a gap in communication had been identified:

- Mount Isa Health Service District - inter-hospital transfer
- Redcliffe Hospital - medical handover at change of shift
- Royal Brisbane and Woman's Hospital - multi-disciplinary care planning for internal medicine
- Toowoomba Hospital Mental Health Services - mental health information transfer
- Goondiwindi Hospital - nursing handover at end of shift
- Ipswich Hospital - medical handover at change of shift
- Princess Alexandra Hospital - multi-disciplinary discharge planning.

The evaluation report suggested that a state-wide clinical handover strategy should not be a 'one size fits all' solution in recognition that clinical handover varies between facilities, geographic locations, organisational structures and clinical cohorts (Last & Kapitsalas, 2008). The report also identified additional factors that influence the effectiveness and sustainability of clinical handover processes including:

- integrating multidisciplinary teams into the clinical handover process
- changing work practices and culture
- availability of resources (e.g. time, space, support or access to electronic tools)
- patient conditions and patient acuity
- support for medical education and training
- strategies to enable changes to existing work practices
- sustainable senior multidisciplinary and executive leadership
- recognition that clinical handover is central to the provision of safe quality health care.

The pilot program provided Queensland Health with a better understanding of the risks, benefits and barriers to implementing the Queensland Clinical Handover Strategy. Several of the pilot sites involved in the program provided valuable data and learnings that informed the development of tools and strategies to reduce gaps in the clinical handover practices at a state-wide level and improve the safety of care delivery.

Queensland Clinical Handover Strategy 2010 - 2013

The Patient Safety and Quality Improvement Service (PSQ) is part of Queensland Health. The PSQ states its goal is to "maximise best-practice outcomes and minimise patient harm" (QLD Health, 2010, para.1).

The PSQ recently developed a state wide Clinical Handover Strategy 2010-2013 to improve clinical handover through alignment with nationally endorsed principles for best practice in clinical handover.

The purpose of the Clinical Handover Strategy 2010-2013 is "to minimise preventable patient harm from communication failures caused by ineffective clinical handover between healthcare providers and across healthcare settings (QLD Health, 2010, p.1)."

The strategy contains six themes as well as objectives, initiatives, KPIs, levels of prioritisation, risk statements and timeframes for each theme. The six themes are:

- implementing systems to improve clinical handover
- building a culture that supports effective clinical handover
- building capacity among staff
- delivering support to districts for sustainable change
- measuring and reporting on progress using sound governance processes
- keeping a patient centred focus.

The strategy does not mandate a particular handover tool or mnemonic.

2.7.4 South Australia

South Australian Clinical Handover Action Plan

The South Australian Clinical Handover Action Plan identifies actions against four elements of the Commission's Draft National Safety and Quality Health Service Standards, Clinical Handover Nov 2009:

- Aims (of the national clinical handover standard)
- Task / Action
- Performance Indicator
- Timeframe
- Responsibility
- Progress/ Outcome / if complete.

The Action Plan states: "Effective communication is the function of: a clear structured process; an enabling environment; respectful behaviour/ culture; clear roles, accountability, expectations; a planned approach to communication and handover; effective communication mediums; health literacy and knowledge and a multi-faceted continuous process" (SA Health, 2010, p.1).

South Australian Clinical Handover Policy Directive and Clinical Handover Guidelines

South Australia is currently seeking endorsement of their draft Clinical Handover Policy Directive and draft Clinical Handover Guidelines.

The stated purpose of the SA Clinical Handover Policy Directive is to:

- enhance patient safety by improving clinical handover
- ensure a consistent approach to clinical handover across SA Health
- ensure that health service organisations are accountable to improve and support clinical handover
- ensure processes and practices are in place to enable continuity of care to occur, within and across health services
- promote universal acceptance of clinical handover across the entire health sector.

The policy directive identifies policy commitments to effective and structured clinical handover, clinical standards that should be met in the implementation of the policy, the responsibilities of all SA Health employees to the level of Chief Executive, relevant legislation, and other documents that support the policy, including national guidelines, such as the OSSIE Guide, and reports prepared for projects funded under the Commission's National Clinical Handover Initiative Pilot Program.

The SA Health Clinical Handover Guideline is based on National Safety and Quality Health Care Standard (5) Clinical Handover and SA Health Clinical Handover Policy.

The guideline identifies:

- principles based in the National Safety and Quality Health Service Standard (5) Clinical Handover
- procedures that should be in place in health services to detail local processes for the management of clinical handover
- governance and leadership

- effective clinical handover processes
- patient and carer involvement in clinical handover, and
- complementary factors such as a multidisciplinary clinical planning brief which is closely related to handover and uses handover principles.

2.7.5 Western Australia

The WA Office of Safety and Quality in Healthcare (OSQH) is advised on strategic direction and other matters related to clinical handover throughout WA Health by the WA Clinical Handover Network (the Network).

The Network was established by the OSQH in July 2010 to improve clinical handover processes in WA hospitals, and align these processes with national standards. The Network's work is limited to all clinical handover processes and activities within the WA Government sector. The purpose of the Network is to:

- lead improvements in clinical handover processes by sharing and aligning clinical handover clinical practice improvement (CPI) activities across the state, and
- provide advice on the development of a state-wide strategy, and evaluation metrics for clinical handover that is aligned with national standards and initiatives. (Office of Safety and Quality in Healthcare, 2010).

The terms of reference for the network were endorsed by OSQH and first adopted on 27 August 2010. One of the key responsibilities of the Network is to review key elements and options for a state-wide clinical handover strategy, in light of the draft national standard for clinical handover (Office of Safety and Quality in Healthcare, 2010).

OSQH will be developing a state wide clinical handover policy in 2011.

2.7.6 Tasmania

Tasmania is planning a state wide policy which will be supported by leadership activity of the Safety and Quality Unit, Care Reform, Department of Health & Human Services to ensure consistent approach to implementation. The evaluation of the pilot program will help to guide Tasmania's policy development and implementation.

2.7.7 Australian Capital Territory

The ACT Health Safety and Quality Framework 2010-2015, is the overarching strategic policy document that provides direction for clinical handover activities. This document is supported by specific policies and standard operating procedures at the organisational and local level, on issues such as patient, identification, assessment and discharge planning, early recognition of deterioration.

In 2010, two pilot programs were underway in the ACT in acute settings with the aim of improving handover through the use of minimum data sets. The Commission's OSSIE Guide has been used to support the implementation of these projects and coordinate the work of the ACT Health Clinical Handover Working Group.

In 2011-2014 ACT Health will participate in the National Australian Research Council Linkage Project on Effective clinical handover communication: Improving patient safety, experiences and outcomes with the University of Technology Sydney and Western Australia, South Australia and New South Wales Health Departments. The lessons from this project and outcomes of the Commission's evaluation will inform activities in ACT Health in coming years.

2.7.8 Northern Territory

The Northern Territory is planning a state-wide policy on clinical handover building on the work of the Commission's pilot program and lessons learned from other jurisdictions policies and programs.

2.8 National bodies' policies on clinical handover

2.8.1 Australian Medical Association

The AMA safe handover: guidance on clinical handover for clinicians and managers was released by the AMA in 2006. The guide was adapted from the Safe Handover: Safe Patients resource of the British Medical Association (Australian Medical Association, 2006) and provides:

- guidance to doctors on best practice in handover
- examples of good models of handover from which doctors and hospital managers can learn

The document acknowledges the importance of continuity of information; that good handover requires work by all those involved; and sufficient and relevant information should be exchanged to ensure patient safety.

The AMA defined handover as:

“the transfer of professional responsibility and accountability for some or all aspects of care for a patient, or group of patients, to another person or professional group on a temporary or permanent basis” (National Patient Safety Agency, London, as cited in Australian Medical Association, 2006, p.8).

This definition is based on the definition in the Safe Handover: Safe Patients resource of the British Medical Association.

2.8.2 Australian Healthcare and Hospitals Association

In 2009 the Australian Healthcare and Hospitals Association (AHHA) released an ISSUES paper: Clinical handover: system change, leadership and principles (Australian Hospitals and Healthcare Association, 2009).

The AHHA Clinical Handover Policy Group was established to develop an independent policy that will complement and feed into the work of the ACSQHC and other major bodies like the National Health and Hospitals Reform Commission (NHHRC).

The AHHA stated in the Issues Paper that it:

“believes that a nationally-consistent and universal set of principles guiding clinical handover will bring about significant improvements in healthcare for patients, and ultimately cost savings for governments and consumers” and further states “such principles will make it easier to collect and report data in a consistent way in order to compare outcomes and improve services” (Australian Hospitals and Healthcare Association, 2009, p. 12).

Based on the guide for staff called Seven steps to patient safety (second edition, 2004) developed by the National Health Service (NHS) in the United Kingdom, the AHHA proposed these steps could be adapted to form the principles underpinning clinical handover in Australia, including national guidelines to state-wide, local and organisational practices and policies:

- positive handover-focussed culture
- leadership and support
- accountability and responsibility guided by robust clinical governance
- risk management
- promotion of internal and public reporting
- involvement of clinicians and consumers
- learning and sharing good practice

- systematic implementation.

2.8.3 Professional colleges

Medical and nursing colleges were consulted during the evaluation for the purpose of understanding the scope of the policies or guidelines developed for professional groups most likely to be involved in clinical handover processes in various health care settings. The role of nursing and medical colleges in terms of education and training of health care professionals was considered an important area to review for this evaluation.

Attachment B also summarises the key information provided by the professional colleges consulted for this evaluation.

2.8.4 Nursing and Midwifery

Nurses and midwives have played a key role in many clinical handover projects, both under the Commission's pilot program and in the jurisdictional programs and pilot projects mentioned above.

The Australian Nursing Federation has a policy on admission and discharge to hospital. The policy states in relation to clinical handover:

"All health services should have in place admission and discharge protocols as these are fundamental to ensuring safe, adequate and continuing care across all health delivery contexts and to ensuring the effective use of resources" (Australian Nursing Federation, 2007, p.1), and

"Admission and discharge planning is an interdisciplinary process which should include relevant health professionals as well as the person receiving care and their carers" (Australian Nursing Federation, 2007, p.1).

The Royal College of Nursing does not have policies or guidelines on clinical handover.

The Australian College of Midwives has consultation and referral guidelines – while not specifically about handover they do provide guidance about how and when midwives should consult and refer.

2.8.5 Medical

The Royal Australasian College of Physicians, the Royal Australian College of Obstetricians and Gynaecologists and the Royal Australasian College of Surgeons reported they do not have policies or guidelines on clinical handover. A number of the medical colleges made submissions to the Commission's Draft National Safety and Quality Health Service Standards in relation to clinical handover.

The Australian and New Zealand College of Anaesthetists have guidelines, recommendations and minimum standards that relate to clinical handover:

- PS10 Guidelines on the Handover of Responsibility During an Anaesthetic
- PS4 Recommendations for the Post-Anaesthesia Recovery Room
- PS20 Recommendations on Responsibilities of the Anaesthetist in the Post-Anaesthesia Period
- PS39 Minimum Standards for Intra-hospital Transport of Critically Ill Patients
- PS52 Minimum Standards for Transport of Critically Ill Patients.

Minimum standards PS 39 and PS 52 are shared with the Australian College of Emergency Medicine.

2.8.6 General Practice

General practitioners have also been involved in a number of the Commission's clinical handover projects, and in the jurisdictional programs and pilot projects mentioned above.

Royal Australian College of General Practitioners (RACGP)

The RACGP has recently released the 4th edition of the RACGP Standards for general practices, which includes a new criterion on clinical handover. Criterion 1.5.2 Clinical handover states: *Our practice has an effective clinical handover system that ensures safe and continuing healthcare delivery for patients.*

The Indicator which is a mandatory requirement for accreditation for this standard is: *Our practice team can demonstrate how we ensure an accurate and timely handover of patient care.*

Clinical handover is defined as: *Systems for clinical handover within the practice, outside the practice, handover to an emergency department; when shared care ceases; handover to Medical deputising services, handover of tests and results, transfer of patient health information, errors in clinical handover, useful resources.*

In addition to providing explanatory notes and the useful resources, the RACGP has been conducting familiarisation sessions on the new edition of the Standards to general practice staff and surveyors. Discussion on how to implement a safe handover system is one of the topics of the sessions.

The RACGP has specific training requirements in the RACGP Curriculum related to handover skills and continuity of care. Handover skills are specifically mentioned in the acute care statement, and the patient safety statement, but much of clinical handover is included within the context of continuity of patient care, both within the general practice setting, and when passing and sharing patient care with other health care providers. In this context continuity of care - which includes patient clinical handover - is seen as a basic skill in the curriculum.

General Practice Victoria

General Practice Victoria (GPV) is the State-Based Organisation (SBO) for Victorian divisions of general practice. In its submission to the Royal Australian College of General Practitioners (RACGP) Standards for General Practice GPV stated it "strongly supports the use of Standards to facilitate the adoption of systems that enhance the quality and safety of general practice services, and that reduce the risk of harm to patients" (GPV, 2009, p.1). They also suggested the new Standards edition "complements or aligns with the newly released Australian National Quality and Safety Framework and indicator set" (GPV, 2009, p.1).

2.9 Key policy themes and areas of focus

The previous sections provided a description of the current policies, strategies, programs and pilot projects at a national, individual state and territory levels and for national bodies.

It is evident that states and territories were at different stages in terms of their policies and strategies, as well as the type of programs and pilot projects they have funded since the implementation of the Commission's pilot program.

The majority of states and territories have developed policies⁵ during or subsequent to the implementation of the Commission's pilot program. Others are in the initial stages of policy development in this area, or are funding new pilot projects with a focus on clinical handover.

A range of policy, program, and clinical practice guidelines and tools have been developed at a jurisdictional level since 2005.

Professional colleges also vary in relation to whether, and the type of policy, guideline or standard for clinical handover. The majority do not have a written formal policy, but a number have specific

⁵ Note: there is a variety of terminology used by states and territories including policy, strategy, policy directive, priorities, strategies for clinical handover. For the purpose of this report, these are simply referred to as 'policies'.

guidelines or standards for professional practice that reflect the diversity of clinical professional groups, and the health care settings in which they deliver and handover care. A number reported having made submissions to the Commission's draft National Safety and Quality Health Service Standards in relation to clinical handover.

Key themes and areas of focus for clinical handover since 2005

The key developments at a state and territory level reflect the different roles and responsibilities of states and territories in the funding and delivery of health care more generally. Information about states and territories' policies, strategies and programs, described previously suggests a number of similarities and differences in terms of policy development and the key areas of focus at a jurisdictional level prior to, during and since the implementation of the Commission's pilot program in 2007.

In summary, the review found:

- most state based policies, strategies, programs and pilot programs were developed during or after the implementation of Commission's pilot program which commenced in 2007
- organisational and governance structures for safety and quality vary between states and territories. This is reflected in their history of developing policies and implementing jurisdictionally funded and sponsored programs and pilot projects on clinical handover
- Victoria and New South Wales pre-date other states and territories in supporting activities focussing on clinical handover:
 - in Victoria, during its second term (2005-2008) the Victorian Quality Council played a key role in advising the Victorian Health Minister on priorities for clinical handover, funding pilot projects and supporting clinicians through the development of clinical handover tools and guidelines. The next steps for clinical handover in Victoria were identified in 2008. In 2009, the Victorian Department of Health included clinical handover in the Victorian Clinical Governance Policy Framework. In its third term (2008-12) the VQC retains a focus on improving clinical handover through its strategic priority of improving the patient journey.
 - in New South Wales, NSW Health has worked with the Clinical Excellence Commission and other state bodies to develop policies and guidelines and tools for clinical handover; launched the Safe Clinical Handover Program in 2009; funded pilot projects and implemented and reported on the actions in response to recommendations 55 & 56 of the 2008 Garling Inquiry into NSW public hospital system.
- Queensland released a three year strategy for clinical handover in 2010 on various clinical handover types
- South Australia has an Action Plan for Clinical Handover and a policy directive and guidelines for clinical handover which is closely aligned to the work of the Commission in terms of the OSSIE Guide for Clinical Handover Improvement and the draft National Safety and Quality Health Service Standard for Clinical Handover
- Western Australia has established a state wide network with responsibility for advising on a state wide clinical handover strategy building on the pilot project on inter-hospital transfer and management of the deteriorating patient.
- Tasmania, Northern Territory and the Australian Capital Territory do not currently have a formal written clinical handover policy or strategy, but plan to develop or are in the process of developing a state / territory wide policy.

In terms of programs and pilot projects for clinical handover at a jurisdictional level:

- in 2006 in Victoria, the Victorian Quality Council developed and circulated a clinical handover information sheet outlining generic concepts to health services and surveyed clinicians; funded the Royal Children's Hospital (RCH) Junior Medical Staff (JMS) Handover project;

developed tools for shift-to-shift medical handover and trailed the tools in a pilot project in 2007 in four public health hospital services; and in 2010, the VQC is piloting TeamSTEPPS™ in 3 metropolitan and 2 rural public hospitals.

- in 2006 in New South Wales the Clinical Excellence Commission funded the Communicating for Clinical Care project; since 2008, NSW Health has supported different models of clinical handover; launched the Safe Clinical Handover program; and developed various policy directives, guidelines and implementation toolkits to support clinicians to improve clinical handover practice, and
- in 2007 Queensland Health funded a pilot program across seven public hospitals with different types of handover scenarios which informed the development of the Queensland Clinical Handover Strategy 2010-2013.

The implications of these developments and emerging themes and areas of focus are discussed below.

2.9.1 Implications of the review of policies and strategies

The review of policies and strategies for clinical handover found strong alignment of the objectives of the Commission's pilot program to the strategic priorities given to clinical handover by the World Health Organisation.

The range of activities have been supported by the Commission since 2005, including the review of the evidence of effective handover, the development of the OSSIE Guide for Clinical Handover Improvement, and the trialling of the draft National Safety and Quality Health Service Standard for Clinical Handover. These parallel developments have influenced and informed jurisdictional policies and activities, facilitating national consistency in relation to information, tools and guidelines to support implementation of clinical handover improvement activities.

Since 2005 there have also been significant developments at a state and territory level, although a number of jurisdictions do not have a formal written policy for handover. A number are in the early stages of planning a state wide policy.

In general, the areas of focus for policy and programs across states and territories since 2008 largely reflects their strong focus on publicly funded hospital services, and shift to shift nursing handover, inter-hospital transfer and junior medical officers (JMO).

The approaches adopted by jurisdictions have varied in terms of their focus and specific priorities in relation to types of handover, the tools and processes trialled, and specific tools and guidelines supported to assist health care organisations improve clinical handover practice. Clinical handover in acute public hospitals has been their primary focus, although transfer of patients to and from community settings, including for general practice, is emerging as a new focus.

Notably, a number of the pilot projects funded by the Commission involved the private hospital sector, the aged care sector, Divisions of General Practice, and the primary and community care sectors. While there have been differences between states and territories in their areas of focus, more recent policies and strategies cover other health care settings, and a broad range of clinical handover types. The private hospital sector is generally not a focus of states and territories in relation to quality improvement activities.

As a national body the Commission has built upon the developments at a state and territory level through work in particular areas of clinical handover and in specific health care settings outside of the acute and metropolitan public hospital system which has been the major focus of states and territories over the period.

Peak professional health bodies, including the Australian Medical Association and Australian Health Care and Hospitals Association have a policy position in relation to clinical handover. However, the majority of medical and nursing colleges reported that they did not have a formal written policy. Some have specific guidelines, recommendations and standards; and reference to clinical handover is made in relation to ongoing training of health professionals, particularly nurses.

The Commission national role means it is well placed to work with peak health, medical and nursing professional bodies to continue to raise the priority of clinical handover within professional networks, including in relation to the development of guidelines and standards, and curriculum development and training. In this way, the Commission can continue to lead the coordination of national activities to improve clinical handover practice through the medical and nursing colleges, and other national peak health bodies.

This review of the scope and extent of Australian policies, strategies, programs and pilot projects, whether at a state and territory government level, through peak health and professional bodies, and in the private sector, has implications in relation to the future role of the Commission in relation to clinical handover.

In line with the Commission's overall role in terms of national safety and quality activities, this policy review on clinical handover in particular has identified the following key areas where the Commission could continue to influence change across the Australian health system through:

- improving the evidence and knowledge base to support and advocate for the adoption of effective clinical handover practice
- leading the coordination of national activities to improve clinical handover practice
- identifying gaps and addressing national priorities, especially where attention has not been given to particular areas of clinical handover, and in specific health care settings
- improving national consistency in relation to information, guides, health service standards, and tools to support the implementation of improvements in clinical handover practice in the Australian health care system
- advising Australian Health Ministers in relation to future implementation strategies for clinical handover, and
- reporting on performance against the national clinical handover standard

The Commission's pilot program, and the parallel activities outlined in this policy review have already contributed to fulfilling a number of the above mentioned aspects of the Commission's role.

The scope and nature of the pilot program is covered in the following section of the report.

The sections following the descriptive overview then report on the outcomes and achievements of pilot program and assess the implications of the findings of the evaluation in terms of the Commission's role in clinical handover into the future.

3. Descriptive overview of the National Clinical Handover Initiative Pilot Program

3.1 Scope and nature of the National Clinical Handover Initiative Pilot Program

The National Clinical Handover Initiative Pilot Program comprised 14 pilot projects funded by the Commission between 2007 and 2009.

The projects were selected from three separate funding rounds in the following four broad categories:

Category 1: Specific handover processes

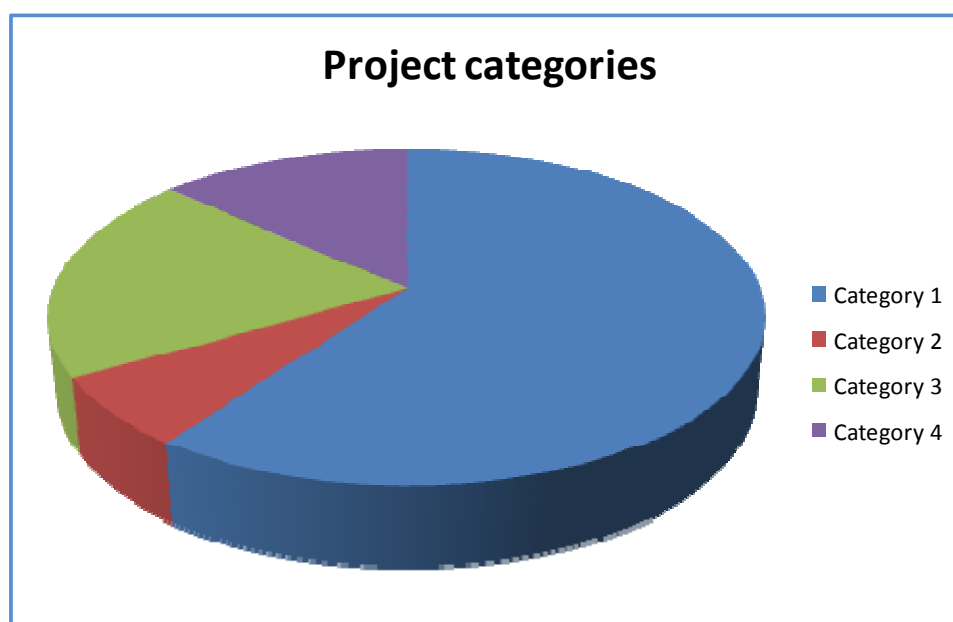
Category 2: Electronic tools and processes that provide systems to support handover of patient information

Category 3: Communication training and team training to support handover

Category 4: Tools for ongoing observation monitoring and evaluation of handover in order to ensure handover practices are resilient in the workplace.

Round 1 commenced in June 2007 and requested submissions for all four categories. Round 2 commenced in August 2007 requested submissions from the private sector for categories 1, 3 and 4. Round 3 commenced in April 2008 for categories 1 and 2 only.

Figure 2: Categories of projects funded under the National Clinical Handover Initiative Pilot Program



Refer also to [Figure 3: Location of the pilot projects of the pilot project sites](#) (page 28)

3.1.1 Pilot projects funded under the program

Category 1:

- Bedside Handover and Whiteboard Communication, Griffith University Research, Centre for Clinical Practice Innovation, Queensland Health Patient Safety Centre and Peel Health Campus, Western Australia
- Implementing written and verbal handover to ensure optimal transfer of patients from country to metropolitan health services, Western Australia Country Health Service and Royal Perth Hospital
- Inter-professional Communication and Team Climate in Complex Clinical Handover Situations (in the Post Anaesthesia Care Unit): Issues for Safety in the Private Sector, Deakin University in collaboration with Epworth, Cabrini and Alfred Hospitals
- CHOCYS: Effective Communication in the Handover of Mental Health Patients to Community Health Practitioners, St John of God Health Care – NSW Services
- SHAREing Maternity Care – Clinical Handover between Visiting Medical Officers and Midwives, Mater Health Services Brisbane Limited
- Transfer to Hospital Envelope, North East Valley Division of General Practice
- ISBAR revisited: Identifying and Solving BARriers to Effective Handover in Inter-hospital Transfer, Hunter New England Area Health Service
- The PACT Program – Communication Training and Team Training to Support Handover, Albury-Wodonga Private Hospital – Ramsay Healthcare

Category 2:

- SafeTECH – Safe tools for electronic clinical handover, South Australian Department of Health, University of South Australia and University of Tasmania

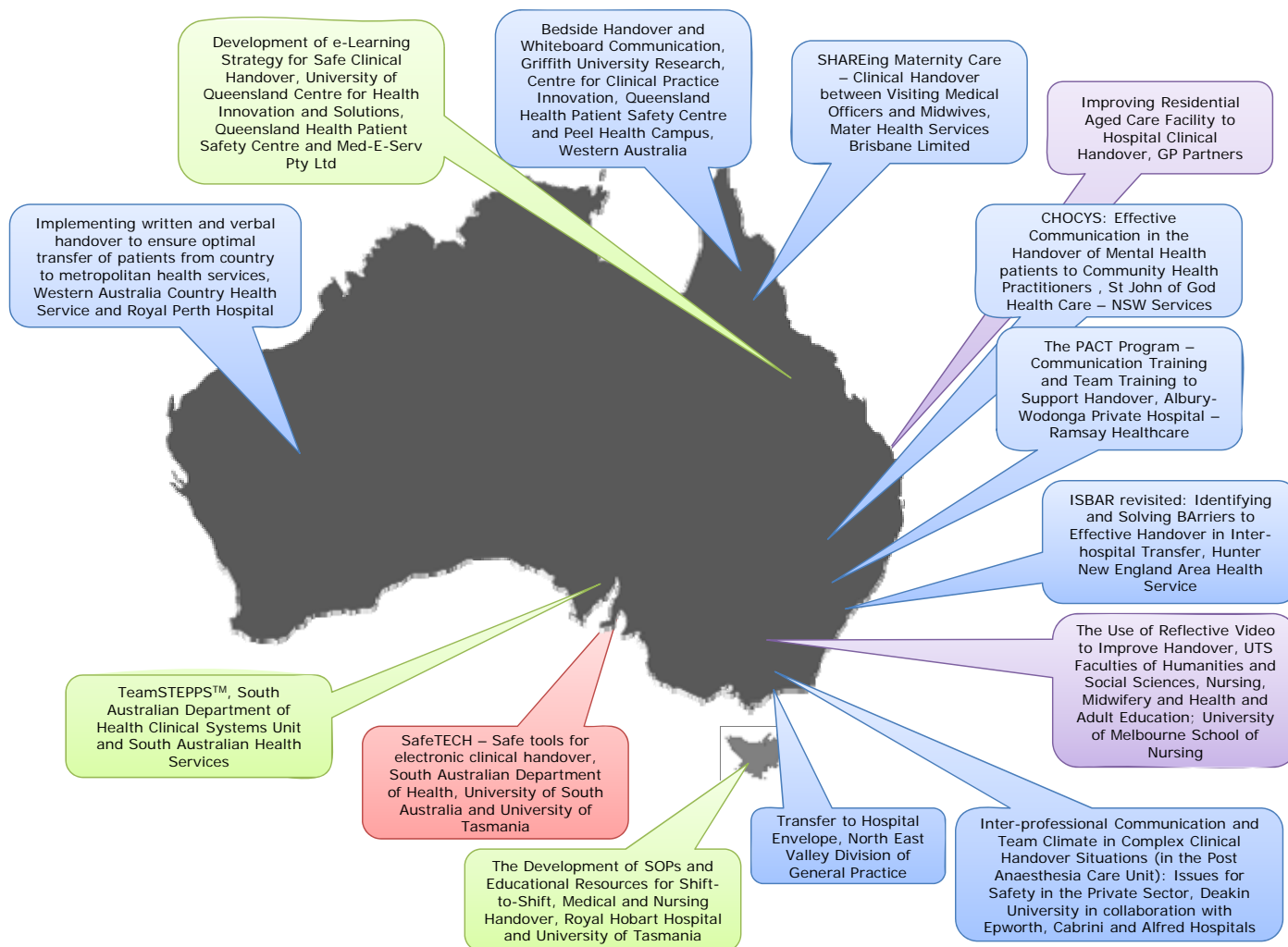
Category 3:

- TeamSTEPPS® , South Australian Department of Health Clinical Systems Unit and South Australian Health Services (Note: also categorised under category 1)
- Development of e-Learning Strategy for Safe Clinical Handover, University of Queensland Centre for Health Innovation and Solutions, Queensland Health Patient Safety Centre and Med-E-Serv Pty Ltd
- The Development of SOPs and Educational Resources for Shift-to-Shift, Medical and Nursing Handover, Royal Hobart Hospital and University of Tasmania

Category 4:

- The Use of Reflective Video to Improve Handover, UTS Faculties of Humanities and Social Sciences, Nursing, Midwifery and Health and Adult Education; University of Melbourne School of Nursing
- Improving Residential Aged Care Facility to Hospital Clinical Handover, GP Partners

Figure 3: Location of the pilot projects



3.2 Key features of the pilot program

The following table summarises some of the key features of the projects funded under the National Clinical Handover Initiative Pilot Program. A more detailed table for each project with website links to project tools and resources is available at Attachment C.

Table 1: Key features of the 14 pilot projects

Project category	Project title	Project location / states	Health care settings	Type clinical handover	Handover mnemonic
Category 1	Bedside Handover and Whiteboard Communication	Queensland Western Australia	Public hospital, metropolitan	Shift-to shift Bedside handover, whiteboard patient flow	SBAR
	Implementing written and verbal handover to ensure optimal transfer of patients from country to metropolitan health services	Western Australia	Public hospitals, country and metropolitan	Inter-hospital	iSoBAR
	Inter-professional Communication and Team Climate in Complex Clinical Handover Situations (in the Post Anaesthesia Care Unit): Issues for Safety in the Private Sector	Victoria	Private hospitals, metropolitan	Intra-hospital, post anaesthesia to ward	COLD SBAR
	CHOCYS: Effective Communication in the Handover of Mental Health Patients to Community Health Practitioners	New South Wales	Private hospitals	Hospital discharge to the community	Discharge checklist
	SHAREing Maternity Care – Clinical Handover between Visiting Medical Officers and Midwives	Queensland	Private hospital, metropolitan	Midwifery to medical	SHARED
	Transfer to Hospital Envelope	Victoria	Residential Aged Care to hospital	Inter-facility transfer	Yellow Envelope
	ISBAR revisited: Identifying and Solving BARriers to Effective Handover in Inter-hospital Transfer	New South Wales	Public hospital, metropolitan	Inter-hospital Transfer	ISBAR
	The PACT Program - Communication Training and Team Training to Support Handover	New South Wales	Private regional hospital	Shift to shift nursing to medical	PACT SBAR
Category 2	SafeTECH – Safe tools for electronic clinical handover	South Australia, Tasmania	Public hospitals, metropolitan	Multiple handovers, medical, nursing, allied health	Electronic handover tool guidelines SBAR / SA electric clinical handover module OACIS
Category 3	TeamSTEPPS®	South Australia	Public hospitals, metropolitan	Intra-hospital, ED to mental health unit	Briefs/ Huddles/ Debriefs SBAR

Project category	Project title	Project location / states	Health care settings	Type clinical handover	Handover mnemonic
	Development of e-Learning Strategy for Safe Clinical Handover	Queensland	NA	Various	Leading Clinical Handover 4X1.5 hour on-line education modules
	The Development of Standard Operating Procedures and Educational Resources for Shift-to-Shift, Medical and Nursing Handover	Tasmania	Public hospital	Intra-hospital, nursing and medical handover, bedside	Standard Operating Protocol (SOP)
Category 4	The Use of Reflective Video to Improve Handover	New South Wales, Victoria	Public hospitals, metropolitan	Various	HELiCS: Handover – Enabling Learning in Communication for Safety
	Improving Residential Aged Care Facility to Hospital Clinical Handover	Queensland	Residential Aged Care to hospital	Inter-facility transfer	Audit tool kit: form and guidelines – fits with ISOBAR

3.3 Examples of categories of pilot projects funded under the program

This section of the report provides short vignettes about projects funded under the Commission's pilot program that were identified in the evaluation as categories, 2, 3 and 4. The boxed vignettes that follow illustrate the pilot projects that developed tools to support improved clinical handover practice, rather than those that developed and trialled specific handover processes.

Vignettes are used to give a brief overview of the project objectives and outcomes in this section and throughout the report to illustrate the range of projects funded under the pilot program. These projects are also illustrated in section 4 along with the projects in category 1.

These pilot projects are examples of the different ways in which the tools developed by the pilot projects can be used to create the need for change and the awareness of problems caused by poor handover.

A powerful tool for observing clinical handover

The University of Technology Sydney developed 'HELiCS': a Video Ethnographic Reflexive Redesign Resource for handover review and improvement. Handovers were videoed at four sites in different services and the videos discussed with the participants, who were invited to suggest their improvements. This approach generally viewed by participants as a powerful tool for raising awareness and prompting change and action on the part of the staff involved.

Specific changes to handover as a result of the pilot included:

- moving from office based to bedside handover with more patient involvement
- single disciplinary to multidisciplinary ward rounds
- avoidance of potential adverse events through the implementation of bedside handover.

Resources to guide this process in other health services were developed, including a 20 minute training video, booklet and website. These have subsequently been used to develop an Ambulance to Emergency Department handover.

This tool proved to be a powerful trigger for change and has the potential to raise awareness with clinicians and effect significant change in handover practice across many settings. This was recognised with the Director of Clinical Governance (SWSAHS) Award 2009: HELiCS: Handover - Enabling Learning in Communication for Safety.

The tools must be carefully implemented, however, as there are important ethical and consent considerations. This may make it difficult for individual organisations to just pick up and use and it may be worth considering a controlled, systematic and targeted approach to using the tool to drive handover improvement across a range of settings.

While HELiCS provided a powerful tool for clinicians to review and identify ways to improve their handover practice, the GP Partners developed an audit toolkit to review the quantity and quality of handover information and to raise awareness about the need for improvement in handover practice.

Identifying gaps in handover information

The GP Partners project involved the development of an audit system to measure and identify handover communication issues between residential aged care facilities and hospital emergency departments – and from hospital wards back to residential aged care.

A 'pre and post' audit toolkit, including audit forms and corresponding guidelines, was compiled for health services and aged care facilities to review the quantity and quality of handover information between acute and aged care. Testing and implementing this audit increased the awareness of a range of health personnel in both aged and acute care of the need for improvements to provide safer care and improve continuity. A number of specific changes, such as the development of a common terminology between aged care and acute for some clinical conditions, were also made as a result.

The thoroughness of the audit and the preference for it to be undertaken by independent auditors meant that the audit tool has not yet been promulgated more broadly. The tool has significant potential to increase awareness and improve handover communication between hospitals and aged care, however, and it may be that a modified version should be developed to facilitate use as part of these services' routine audit programs.

'Leading Clinical Handover' project developed by the University of Queensland provided a free online educational resource for clinicians about best practice in clinical handover providing another resource to assist clinicians to understand the importance of good communication and responsibility for clinical handover.

An online educational resource

'Leading Clinical Handover' was developed by The University of Queensland as a six hour online handover education program that is freely available. The content covers:

- the importance of clinical governance within a quality and safety framework
- professional responsibility
- communication
- best practice in clinical handover.

Primed was responsible for the on line publication and support for the program. The content is taught via the use of an on line facilitator, case studies and theory. The course has been promoted with Medical Colleges, Departments of Health and individual health services and feedback from education services within hospitals is that many hospitals provide links to the program through their own websites. To date, approximately 400 participants have logged onto the course, although only around 10% of these have completed all of the modules, which suggests that people are only completing the areas that are useful to them and their particular situation. Ongoing evaluation data is collected from every participant that complete the course and this is analysed regularly. The program won the Platinum Place for "Best Partnership in a Training Program" Award from LEARNX Awards Asia Pacific 2010 E-Learning & Training along with The University of Queensland under the Best Practices category.

This valuable resource may benefit from a more systematic and targeted marketing campaign and may be utilised by more health professionals and organisations if a short, targeted version was developed for time poor clinicians.

Other pilot projects produced protocols and guidelines to support clinicians to adopt improved handover practice.

The University of Tasmania pilot project developed standard operating protocols (SOP) for medical and nursing handover to provide an evidence-based guide for standardisation.

An evidence-based guide for standardisation

The eHealth Services Research Centre, University of Tasmania conducted the project at the Royal Hobart Hospital (RHH). The project focused on the development of transferable standardised operating protocols (SOPs) incorporating minimum data sets for medical and nursing shift-to-shift handover in General Medicine, General Surgery and Emergency Medicine.

An Overarching Standard Operating Protocol (SOP) was generated from an analysis of data from the six settings and was further validated in these six areas to provide an evidence-based guide for standardisation. The SOP aimed to provide a tool for clinicians and managers to implement clinical handover improvement initiatives within their local clinical services. The over-arching minimum data set (MDS) was developed from a detailed analysis of the similarities and differences across the six individual MDSs produced for medical and nursing handover in the General Medicine, General Surgery and Emergency Medicine.

The MDS achieved a standardisation of minimum content for the transfer of information, responsibility and accountability during shift-to-shift clinical handover.

SafeTECH developed nationally applicable guidelines to promote the safe use of electronic tools for clinical handover.

Guidelines for safe and appropriate use of electronic tools for clinical handover

The SafeTECH project was undertaken jointly by South Australian Dept Health Safety and Quality Unit with Human Factors Research Group, University of South Australia and eHealth services Research Group, University of Tasmania.

The guidelines were developed using the clinical handover module of the Open Architecture Clinical Information System (OACIS) in use in South Australian hospitals since 1995 but they were designed to be applicable nationally for any electronic handover tool. The development of the guidelines was supported by research at 3 pilot sites where the OACIS electronic handover module was introduced.

Researchers looked for changes to handover practice, communication and indicators of safety before and after implementation of electronic handover. Methods for gathering data included observation and audio recording of handovers, semi-structured interviews (20 staff across 3 sites), task recording of night cover clinicians and collection of notes taken at handover with accompanying guided conversations plus examination of a selection of handover notes and patient case notes.

Conclusions from the SafeTECH project were that change management was a critical aspect of implementing electronic tools to support clinical handover and that their role in supporting rather than replacing processes for handover needed to be well understood.

4. Outcomes and impacts of the National Clinical Handover Initiative Pilot Program

The previous section of the report provides a descriptive overview of the National Clinical Handover Initiative Pilot Program including the range of handover processes adopted; the health care settings in which the handovers occurred; the health professionals involved and the tools developed and used in the projects to improve and standardise the handover processes employed.

This section reviews the outcomes and impacts achieved by the projects, including:

- key barriers and success factors in achieving pilot project objectives
- sustainability and spread of changes to handover processes
- how the pilot projects measured the success of their handover interventions
- broader issues of measurement raised by how project measured the outcomes of handover interventions, and
- overall outcomes and impacts of the pilot program.

A number of common themes in these areas emerged from the pilot project final reports and during our discussions with key stakeholders involved in project implementation. The evaluation findings are discussed below with boxed vignettes of individual pilot projects that illustrate a particular point or theme.

The vignettes are not provided in a particular order, nor are they intended to denote or compare the achievements of the pilot projects with one another. In many instances the themes were common across the projects, not-with-standing the differences in terms of their objectives and the tools and processes being implemented.

4.1 Key barriers and success factors in project achievements

Given the dearth of accepted measures for effective handover, 'successful projects', for the purposes of this section, are defined as projects which achieved their planned change to handover processes. However, it is important to acknowledge that the projects did not always achieve project outcomes in terms of measurable patient care improvements. This is noted in the literature as both difficult to attribute and to measure in relation to handover.

The key barriers and success factors are grouped into four common themes for projects and are summarised in the table below. Each theme is then discussed in more detail, and illustrated through the use of vignettes based on the individual pilot projects.

Table 2: Change success factors and barriers across the pilot projects

Success factors	Barriers to success
Change seen as fit for purpose, practical and an improvement	Change seen as change for change sake Change seen as having unnecessary steps and complexity
A conducive environment and context: <ul style="list-style-type: none"> • a good reason to change • an organisational priority • embedded in operational routine (discussed in the spread and sustainability section) 	A poor environment and context: <ul style="list-style-type: none"> • not making the case for change • seen as an extra task • another new project that increases change fatigue • disruption • specific contextual difficulties not addressed
Supported by influential people: <ul style="list-style-type: none"> • relentless leadership – both clinical and managerial • collaborative relationships between stakeholders • a dedicated project manager/resource • resources for marketing and training re tools 	Lack of support: <ul style="list-style-type: none"> • lack of hands on leadership • unable to engage the influencers • disagreement about project usefulness amongst stakeholders • no dedicated project manager/resource
Demonstrable and positive outcome: <ul style="list-style-type: none"> • quick wins • tangible demonstration of the advantage of change, such as time saving, streamlined process, better information exchange • marketing of successes and lessons learned 	Lack of demonstrable outcome: <ul style="list-style-type: none"> • difficulty showing improvement in the short term • no agreed definition or measures of success

4.1.1 Handover solution seen as fit-for purpose, practical and an improvement

The 14 pilot projects funded under the program were either adopting a new clinical handover process or tool, providing communication training and team training to support handover, or using and evaluating tools for ongoing observation, monitoring and evaluation of handover.

Those involved in the projects reported that the innovation, whatever form it took, needed to provide a practical and simple improvement to an identified problem and help to ease, rather than exacerbate, existing time pressures. The projects that achieved the greatest uptake, including sustainability and spread, all shared these characteristics.

All pilot sites identified 'fit for purpose' as the extent to which the new process or tool was perceived by users to be the right tool for the job, i.e. to get the job done in a more efficient, enjoyable or effective way, involving no unnecessary people, steps or requirements.

Fit-for-purpose tools were generally those that were adapted from a previously used tool, or a new tool specifically designed for that specific handover setting. The success of fit-for-purpose tools supports the concept of 'flexible standardisation' suggesting that a single simple solution to clinical handover is both impractical and unlikely to suit all the circumstances in which clinical handover occurs.

For example, the SafeTECH research report highlighted difficulties at sites where an electronic handover tool was not specifically designed for the needs of the clinical team or was not able to be adapted to their needs. In the case of the Hunter New England ISBAR approach the acceptance and sustainability of ISBAR by clinicians was reported to relate to the practicality of the tool that was:

- shaped by the requirements of the clinicians who might use it
- brief, portable and widely generalisable
- easy to teach
- seen as providing clinicians with a structure that increased their confidence in giving clinical handover, and
- actively adopted by senior leadership to shape critical information exchange

An example of a ‘fit for purpose’ solution

The North East Valley Division of General Practice project provided a low technology solution carefully designed for the environment in which it was to be used (Aged Care Home to Emergency Department transfer). The Envelope/checklist helped to identify and formalise clinical handover so that staff recognised what was happening and that key information needs to be conveyed.

The Envelope can be used with minimal training, maintains the privacy of the resident because no clinical information is visible externally, does not need to be retained as part of the health record, is large enough to contain relevant information and documents, and is not expensive. It also quickly identifies people when they reach hospital as being from a residential aged care home – important for considerations around their ongoing care. The Envelope met an identified need and the project was locally grounded with substantial “bottom-up” involvement and collaborative engagement with local organisations.

Similarly, the COLD (Connect Observe Listen Delegate) approach to inter professional communications in PACU developed by the Epworth, Cabrini, Monash and Deakin University collaboration was specifically designed to support effective communication in the complex post anaesthetic care environment, through gaining a deep understanding of the environment, involvement of clinicians working in the environment and taking into account the multifaceted influences on clinical handover in this setting.

4.1.2 A conducive environment and context for change

The successful implementation of the pilot projects related to a range of environmental factors that had an impact on the successful adoption of the clinical handover improvement being trialled.

4.1.2.1. Making the case for change

A major barrier to implementing clinical handover was scepticism about whether there was in fact a problem with clinical handover processes already in place. Without acceptance that there was a problem, it was difficult to persuade clinicians to invest time and energy in change.

Some projects referred to the studies that supported the statement made in the literature review prepared for the Commission by the eHealth Services Research Group from the University of Tasmania: “clinical handover is a high risk scenario for patient safety with dangers of discontinuity of care, adverse events and legal claims of malpractice” (Wong, Yee, & Turner, 2008, p.3).

The implications of clinicians perceiving that there is not a compelling case for change are important both at a local and a system level. The literature also notes the difficulty of creating an impetus for change with the current lack of evidence around the potential impact of handover on various aspects of patient care, and the corresponding dearth of measures to demonstrate suboptimal outcomes resulting from poor handover.

Making the case for change using patient safety

Showing a connection between handover and patient safety was an effective approach to making the case for change at some sites.

Improvements to handover using ISBAR commenced in Hunter New England (HNE) in response to an analysis of Root Cause Analysis (RCA) and incidents that clearly showed the impact of poor communication on patient safety.

Similarly, the PACU project at Cabrini and Epworth Health was able to engage staff by showing that in 45% of reported handover incidents, the cause of the incident was attributed to poor handover processes, while in 55% of cases, an actual or potential error was detected by handover processes. Most events where handover contributed to the error involved a breakdown in communication. Incomplete documentation at handover was a source of frustration for clinicians and reported to be associated with consequences for patient safety, increased workload and resource demands.

A number of projects collected pre intervention data with a view to making the case for change, but no themes emerged regarding the most effective approach or data for stimulating change. This reflects the literature in this area. Some projects collected data on the implications of poor handover – that is, related adverse events. Others identified problems for staff and patients associated with inefficient and ineffective handover.

For example, NEVDGP invested time with the project stakeholders to clearly identify the current gaps in aged care to hospital communication and how their tool would improve this. The GP Partners audit project clearly identified gaps in handover of residents and their information to and from hospital, and this resulted in both the hospital involved and a number of aged care facilities implementing improved approaches to effective information exchange and making efforts to better understand each other's perspectives on patient care.

Tools that have broader application in support of improving handover such as the 'Leading Clinical Handover' online education package and the HELiCS reflexive video review of handover also present persuasive information and evidence to support practice change. The HELiCS project, in particular, reported both attitude and behaviour change as a result of clinicians observing their own handover processes.

Change fatigue was reported by a number of pilot sites as contributing to difficulties with staff engagement. Staff complained that they did not have the time, energy or interest in another change activity, particularly one that they perceived was focussed on an area that did not require improvement. Project managers reported a growing perception amongst staff that new initiatives are often 'flavour of the month' priorities for senior managers and policy makers that are unlikely to be sustained over time or to show benefit to patients or staff.

Change fatigue may lead to some patient safety initiatives succeeding at the expense of others and points again to the importance of prioritising those changes that can demonstrate tangible benefits to patient safety and care.

4.1.2.2. Making clinical handover an organisational priority through integration with organisational processes and other safety initiatives

The level of organisational support or priority given by the organisation to the handover process being adopted was also viewed by stakeholders as critical to the successful implementation of the handover process or tool. This was reflected in a number of the projects where handover became a regular agenda item on organisational safety and quality committees, or working with medical and nursing workforce managers to change rosters to accommodate a revised handover process. It was also important that the change became a routine part of existing structures and processes and complemented other safety initiatives, such as the Mater embedding SHARED in their care paths for neonatal and recovery to ward handover.

Organisational support was also demonstrated through resourcing the change. The majority of stakeholders interviewed for the evaluation commented that the project would not have been possible without the funding provided by the Commission.

Project funding supported dedicated project staff and in some instances, backfilled clinical staff to free them up to be involved in meetings and development work. Despite the Commission's support, a number of organisations noted that a lack of resources to roster staff for handover, to backfill staff so that they could be involved in training and to market the new processes contributed to the difficulties with embedding the new handover approach.

The level of organisational priority given to clinical handover across pilot projects was affected by a number of factors such as personnel changes, for leaders and staff, internal organisational disruptions, such a restructures and conflicts and disagreement between influential clinicians regarding the need for change. Project managers positively noted the support given to them by the Commission during times of conflict and disruption, helping them to continue with the project.

Rural and regional and private pilot sites reported specific problems in effecting change in their environments, noting the difficulties in engaging Visiting Medical Officers (VMOs) in changing handover practice due to a lack of VMO time for administrative tasks such as attending meetings and their commitments outside the organisation. Some specific rural health service issues described as impacting on projects included:

- limited on-site 24 hour medical coverage
- nurses have to be able to undertake an accurate patient assessment
- increasing numbers of junior clinicians who lack experience, both in performing patient assessments and communicating this information to senior healthcare clinicians including medical staff
- difficulty in recruiting and retaining highly skilled clinicians including nursing, medical and allied health professionals to regional areas
- difficulty in contacting VMOs after hours – contributing factors include inadequate mobile phone coverage and distance to travel to the hospital, and in some cases, the unwillingness of nursing and junior medical staff to contact senior medical staff. It was noted however that providing a structured format and guidelines for contact increased confidence in contacting senior medical staff.

A Rural/Remote Issue: Inter-hospital transfer – a high risk scenario

Complex processes are involved in patient transfers for referral and arranging patient transport in the Western Australian Country Health Service (WACHS). Crucial clinical time is utilised in finding the metropolitan hospital bed and the transport provider relying heavily on multiple health professionals having local knowledge.

WACHS in partnership with Royal Perth Hospital (RPH) undertook the project to trial strategies that would assist in addressing the risk factors involved in acute patient transfers. Encompassing the transfer of accountability required an expansion on SBAR. SBAR covered the salient points, but did not lead the user through a defined sequence and therefore left delivery open to interpretation as to the requirements of each step.

The term iSoBAR was developed as it incorporated accountability in the "Agree a plan" and "Read back" headings. There was also marketing appeal in aligning to the rural sector with the visual cue represented by the isobar pressure lines. The term was suitable given the pressure staff felt they were under in handing over clinically deteriorating patients. iSoBAR was easy to remember as it reflected the environmental factors of some of the WACHS regions, such as annual cyclones.

4.1.3 Support by influential people

A commonly expressed view during the pilot site consultations was that successful projects were driven by a dedicated person or a team of people with a relentless drive to overcome barriers and make change.

4.1.3.1. Focused leadership

Leadership by senior clinical and management leaders and champions, whether key individuals or teams, was seen as crucial to project success, as it is in any major change initiative. This leadership was demonstrated in a number of ways, such as provision of resources, changing rosters to support handover, personal involvement in projects, and promotion of the project with groups and individual clinicians.

Supportive leaders also invested in dedicated project resources, such as project managers, and this was cited by a number of health service based projects as vital for driving the project day to day. Leaders of successful projects also supported spread of handover initiatives through clever marketing of handover tools and successes and inclusion of handover on key safety and quality committees. Overall, these leaders were relentless in their pursuit of improved clinical handover and proactive in addressing barriers and enhancing drivers for change.

One particular area of the pilot program that is noteworthy was the extent to which consumers were involved in the handover processes and more broadly the role of consumers as 'influencers'. Overall this was not a strong theme across the pilot projects. Although, the St John of God CHOCCYS project, the Hunter New England ISBAR project and the Griffith University Bedside Handover project reported gains in the quality of handover and information exchange when involving consumers, the pilot program as a whole, did not focus particular attention on this aspect. The involvement of consumers in clinical handover and quality improvement activities is an area for future development work.

Role of the patient in handover – Griffith University study

Bedside handover involves patients and their carers in direct involvement in the handover process. The Griffith University project funded under the pilot program was part of a large project Transforming Care at the Bedside (TCAB) which provided a framework for improving safety on medical and surgical wards in acute care hospitals. The study examined the perspectives of ten patients about shift-to-shift bedside nursing handover during their hospitalisation in one Queensland public hospital in 2009. The study concluded that bedside shift-to-shift nursing handover offers the potential for patients to actively participate in their care. Not all patients chose the same level of interaction, but they did value having access to information on an ongoing basis and saw their role as important in the exchange of accurate information.

4.1.3.2. Collaborative relationships

Successful project and organisational leaders demonstrated common characteristics:

- a clear vision for change
- a relentless pursuit of the change despite many barriers, and
- willingness to listen to and collaborate with stakeholders.

This does not mean that successful projects relied solely on top-down leadership. Instead, clinical leadership at different levels of the organisation was viewed as critical for building and supporting collaborative relationships between the relevant stakeholders involved in the clinical handover process.

Successful leadership of change was usually a team approach, comprising an influential leader who was a well networked, credible, respected clinician with national, as well as local connections and a

strategic view; a persistent and well respected project manager to drive the change day to day; substantial “bottom-up” involvement of clinicians and administrative staff and collaborative engagement with local organizations and national groups where relevant.

It was important for leaders from each of the professional groups involved in the change effort to have a high profile – for example medical opinion leaders and champions were needed to engage other doctors in change efforts, and similarly for nurses. A number of the pilot projects reported the importance of engaging the medical profession in clinical handover improvement and the differences in communication styles between doctors and nurses.

The relationships and collaboration that supported the projects were reported as a critical enabling factor for change. While key individuals played an important role in driving the projects, they still required both senior managers and clinicians across the organisation to provide leadership and support, and it was imperative that they were clear about and enacted these roles.

Local leadership included public and one-on-one conversations about the project, provision of resources and involvement in the project themselves. For some projects, the lack, or withdrawal, of senior clinical leadership and support was a major challenge and this contributed to withdrawal of participation (in projects with involvement across multiple sites) or projects not being able to achieve all of their objectives. For many projects, engagement of the medical profession in clinical handover improvement was regarded as pivotal, and a necessary element of a team based approach to change and decision making.

Project managers were required to demonstrate considerable resilience in maintaining their enthusiasm and drive over what was often a difficult journey. Attitude change generally took a lot longer to effect than the actual physical and process changes and the project managers were persistent in encouraging ongoing participation in trialling new handover approaches.

4.1.3.3. Support for awareness raising and training

Some projects reported marketing material and activities as an important element of building awareness and the need for change. The Mater SHARED Project used colourful posters and tags to raise the profile of the mnemonic and as a ready reckoner to guide use. The Ramsey PACT project in Albury-Wodonga private hospital used bright pink forms, posters and shirts and developed the term CABSAPI as an easy to remember mnemonic prompt.

All projects involved some form of training and knowledge development for staff, both formal and informal, but these aspects of the projects were not universally well evaluated. The HNEAHS ISBAR project evaluated the 15 minute ISBAR training session and reported statistically significant improvements in confidence in capacity and in the self-assessed skill level of clinicians and patient transport staff to give and assess the quality of a clinical handover. Scores for non-medical clinicians demonstrated improvement in their perception of the quality of the handover which had taken place between baseline and after implementation of the ISBAR tool.

The University of Queensland ‘Leading Clinical Handover’ online education project runs a continuous evaluation for each participant and results clearly indicate that participants feel they have developed knowledge and confidence as a result of undertaking the course.

A standard educational package that succinctly presents the basics of effective handover, drawing on the material developed by the pilot projects, would be a useful tool for clinical handover improvement and spread.

4.1.4 Demonstrable Outcomes

As mentioned above the outcomes of clinical handover are not necessarily easy to quantify or measure. Showing that clinical handover practice improvement leads to improved outcomes in terms of patient safety and quality of care is inherently problematic. Similarly, the organisational and cultural change that occurred in the pilot projects was also not easy to demonstrate. All pilot sites reported that they had at least raised awareness about the importance of good handover and the implications of this for patient safety as one of their project outcomes, ascertained through formal and informal staff and patient feedback.

A key aspect of the evaluation was exploring with the pilot sites how improved clinical handover could be measured in terms of patient outcomes or improvements to safety and continuity of care.

There was universal agreement among pilot sites that measuring the effectiveness of clinical handover in improving patient care is difficult. The evaluation found that inability to demonstrate a measurable improvement to patient care created a potential barrier to clinician engagement and project sustainability and spread. This also has implications for the spread of effective handover practice across the broader healthcare system.

Given the importance of this particular aspect of the pilot program, the challenges of measuring outcomes of clinical handover are discussed in section 4.4 below. This section provides examples of the types of measures identified by the pilot projects for measure outcomes of their projects.

4.1.5 Summary of barriers and enablers to changes in handover tools and practice

There were a number of common themes across the pilot projects in terms of organisational and project characteristics that enabled and hindered successful change.

These covered four main themes:

1. The projects that were able to make their planned changes to handover practice were able to show that the tool or process was tailored for the specific handover environment, was practical and an improvement on current practice.
2. The organisational environment was supportive and conducive insofar as there was a good reason to change which was clearly articulated; the change was made an organisational priority and embedded in routine structures and processes.
3. Successful change was driven by influential people, including clinical and non clinical leaders, key stakeholders and end users. A dedicated project manager to drive the change day-to-day, using effective change and marketing strategies appeared to be a key factor for success.
4. The fourth key characteristic was a demonstrable and positive outcome resulting from the change. This ranged from specific analysis of adverse event data showing reduction in patient harm to staff perceptions of improved efficiency and communication, role clarity and confidence.

Not all pilot projects experienced each of these characteristics, but one or more of these enablers were required to drive successful change. Conversely, the absence of any of these enablers made it more challenging to implement the project interventions.

4.2 Sustainability and spread of the pilot projects

This section reports on the key factors leading to sustainability within and spread beyond the original pilot sites and health care organisations funded under the pilot program.

It documents the factors which led to continued use of the handover tools and processes trialled at the pilot sites and the factors that were important to achieve spread beyond the original pilot sites to other health care organisations. The discussion builds upon the previous section concerning key enablers and barriers to change, as many of these factors also feed into why the 'successful' projects were sustainable and spread.

A summary of key factors in the spread and sustainability of pilot project tools and approaches is included in the table below. These are discussed in more detail throughout this section.

Table 3: Key sustainability and spread factors

Key sustainability factors	Key spread factors
Commission's supporting role	
<ul style="list-style-type: none"> • Good news story • Links to other initiatives • Perceived as helpful by users • Perceived as efficient and beneficial by management • Exists beyond dependence on champions to be embedded in structures and processes 	<ul style="list-style-type: none"> • Tool easily adaptable to other environments • Sponsored by a champion with external links • Active promotion and marketing of project tools and success within the pilot site and organisation • Promoted externally through organisational networks and/or state support

4.2.1 The Commission's role in encouraging sustainability and spread

During the consultations undertaken for the evaluation it was evident from the pilot sites that the Commission had played a key role in supporting them during the implementation period. The funding provided for the projects, and the kudos of being part of a national program on clinical handover managed by the Commission, was reported as being a major factor in giving the projects a high profile within the health care organisations involved. In addition, the ongoing management of the projects by Commission staff, as well as the assistance they provided to individual projects to deal with the specific barriers and challenges they faced, was a factor in the sustainability of the pilot program overall.

Throughout 2008 and 2009, the Commission held a series of state based workshops on Using Tools to Make Clinical Handover Safe. These workshops were an important mechanism to encourage both sustainability and spread of the clinical handover solutions being trialled under the pilot program. Approximately 750 nurses, doctors, allied health professionals, health educators, health managers, safety and quality unit staff and health researchers attended.

The Commission reported they received largely positive feedback from participants of the workshops, and this was further confirmed during the consultations undertaken for the evaluation with people from the pilot projects who had presented or attended the workshops. The pilot sites reported the workshops gave them the opportunity to present their projects to a wider audience, to showcase their clinical handover tools to others and to network across the sector. For many the workshops generated interest and inquiries from people in other organisations about how to access their particular clinical handover tools and resources.

4.2.2 Exploring sustainability

For the purpose of the evaluation the definition of sustainability was:

Improvements embedded in structures, processes, routine practice and quality assessment.

This definition was adapted from the 'framework for safety and quality of clinical handover' described in the final project report for the Epworth Cabrini pilot project funded under the pilot program.

In most cases, systems were not established by the pilot projects to objectively monitor or measure the ongoing use of the clinical handover solutions. Within the scope and timeframes of the evaluation of the pilot program a broader approach was adopted to gauge sustainability at the original pilot sites two to three years after the completion of the pilot projects.

The overall evaluation of sustainability included the following approaches:

- the final reports for each of the pilot projects were reviewed to ascertain whether the clinical handover tools and processes developed were being used as part of usual practice in the organisations at the time of submission of the final reports
- stakeholder consultations with project managers, and others involved in the pilot projects, were undertaken to seek more recent information about whether and how the clinical handover tools and processes had become embedded into 'business as usual' during and beyond the funding of the projects
- letters were sent to Chief Executive Officers or Directors of Nursing in participating hospitals and aged care homes to confirm whether the particular clinical handover approach was still in use and by whom.

The following section synthesizes the findings of the evaluation in relation to the key factors that were reported by stakeholders as contributing to the sustainability of their clinical handover solutions.

4.2.3 Key factors identified by the pilot projects as contributing to sustainability of clinical handover tools and processes

4.2.3.1. Good news story

A number of the pilot sites reported that their project had gained momentum during the implementation phase because of the good work and achievements of the project in the eyes of other staff. The kudos of having received funding from the Commission and the high priority clinical handover had both nationally and through the WHO initiative generated considerable interest in the pilot projects.

A number of the pilot sites also reported that the practical tools and resources being developed generated interest across their organisations for their potential to improve workplace practice.

'Good news' stories about the projects, especially where staff could observe that the clinical handover solutions being trialled could save time and give greater clarity about the information required for good handover, was a key factor in encouraging other staff within an organisation to embrace the change that was required.

A number of the pilot projects involved handover processes, or transfers, between health care settings which meant that different health care professionals were involved in the handover in the sending and the receiving organisation. In these cases the benefits of the clinical handover solution or the 'good news story' also needed to be seen by people outside of the organisation in which the project was being implemented.

Achieving sustainability across sectors

St John of God Healthcare Richmond and Burwood mental health facilities developed an evidence based handover process for patients moving from hospital to the community. This involved input from patients, hospital mental health practitioners, a discharge coordinator and General Practitioners (GP).

A number of significant improvements were noted to the timeliness of discharge summaries, patient follow up post discharge and patient and GP satisfaction with communication. There was also a perception that the changes may have reduced readmissions.

A number of reasons were suggested for the particular strength of sustainability of the project at the Richmond Hospital: the process fitted well with the St John of God mission; the project leaders worked hard to develop sound relationships with the stakeholders involved and were relentless in their pursuit of improvement. It has also streamlined the discharge process, so the doctors were happy to keep using it.

This project is an excellent example of the importance of leadership, the 'fit' of the project with organisational culture and consumer participation. It also has the potential to inspire improvements in clinical handover in the mental health and community sectors more broadly and is a reminder of the importance of addressing clinical handover beyond the public sector.

4.2.3.2. Handover solution linked to other patient safety projects or approaches

Stakeholders also expressed the view that their clinical handover projects were strengthened because of links to broader quality improvement or patient safety initiatives. This may relate to the synergies that other projects provided in terms of their focus and how they were trying to improve specific aspects of the safety and quality of patient care. For example, the Hunter New England Clinical Governance unit had commenced work on SBAR prior to the project being funded under the pilot program. The ISBAR Revisited project enabled the HNE health service to study and trial ISBAR (introduction, situation, background, assessment, recommendation) as a standardised communication framework to optimise clinical communication for inter-hospital transfer in particular, but within the broader range of activities being conducted by the Clinical Governance Unit in HNEH at the time.

Another example relates to a broader focus within WA Health in responding to the needs of the deteriorating patient which was acknowledged as another key priority for the Commission during the time the pilot program was being implemented. There was a strong synergy in this broader focus to the transfer of the deteriorating patient with the trial of inter-hospital transfer handover

between regional hospitals in six Western Australian Country Health services and the Royal Perth Hospital pilot project. The minimum data set and transfer form developed for the project sought to include the type of information that could minimise the risk of transfer of a deteriorating patient to occur across the WA Health system.

The Griffith University project was part of 13 Transforming Care at the Bedside (TCAB) improvement strategies which provided a framework for improving safety on medical and surgical wards in acute care hospitals in Queensland. The links between organisational structures in the university and the Queensland acute care hospitals involved in TCAB were already established enabling the pilot project funded by the Commission to be part of a much broader safety and quality initiative.

4.2.3.3. Perceived as helpful & fit for purpose by users and beneficial and efficient by management

As mentioned previously a strong theme for success was the importance of solutions that were fit-for-purpose. For many of the pilot projects, the new tools and processes were replacing existing, and sometimes, ad hoc processes. While resistance to change was evident in a number of the pilot projects, where solutions were perceived as helpful and fit-for-purpose by clinicians they were more likely to be sustained. When clinician support was replicated and reinforced beyond the trial, the handover tools and processes were also more likely to be retained. Management support took the form of:

- commitment at an organisational level for sustained adoption
- ongoing resources and staff.

Projects which garnered senior management support generally had the following characteristics:

- the clinical handover solution was perceived as an efficient use of resources and staff time, and
- clinical handover solution was perceived to provide benefits to the organisation in terms of improved care processes for staff and for the care of patients.

TeamSTEPPS® is an example of a pilot project that has had sustained support and commitment from the state health department with a planned approach for spread across South Australia.

An example of state wide commitment

TeamSTEPPS® is a teamwork training system developed in the United States that aims to improve communication and team functioning. Health care professionals need to manage both these aspects of care effectively for high quality clinical handover to occur.

The South Australian TeamSTEPPS® program demonstrated careful planning for change with a clear articulation of goals and a multifaceted approach. They aimed to consider and address at a state level the implementation and sustainability factors identified as influencing success at an individual project level. Sites introduced the SBAR communication tool, followed by briefings (short planning meetings) and huddles (ad hoc planning to re-establish situational awareness). Examples of sustainability of interventions after the conclusion of the project included:

- sustained use of the SBAR in emergency department medical discharge letters (80% average compliance after 18 months)
- sustained use of SBAR for nursing handover at a country site
- reduction in fall rate (falls per 100 bed days) contributed by use of SBAR in nursing handover in a medical unit

There was a high-level long-term commitment to driving change, backed by resources necessary to help implement the program. There was also a strong focus on staff engagement and clinical leadership and reporting on progress and outcomes was embedded into state level structures and systems. The program leaders aimed to identify and implement strategies that would reinforce the change, such as routine incorporation into hospital orientation programs and University educational programs.

4.2.3.4. Beyond dependence on an individual champion and embedded in structures & processes

Individual champions were important to initiate and manage the change required. However sustainability was an issue if the involvement of these champions was critical to the project continuing beyond the original timeframes. The changes made in the pilot projects needed to be beyond dependence on a particular individual or even a team of people who were the original champions or leaders of the pilot project. To be sustainable, clinical handover tools and processes needed to become routinely used by clinical staff as part of their usual clinical practice and embedded into organisational structures and processes.

A number of stakeholders stressed that top-down management alone was not sufficient to embed clinical handover solutions into organisational structures and processes and that 'grass roots' support was also needed if these were to become integral to organisational workflow practices.

Mnemonics were used in the majority of the pilot projects. The mnemonics became an integral part of the data collection processes, systems and support documentation, whether for the purpose of verbal, written or electronically supported handover. The use of a mnemonic, whether based on adaptations to SBAR, or tailored specifically by the projects, were applied to different types of handover and within different health care environments demonstrating that benefits could be realised through adopting a flexible approach to standardisation and then embedding the mnemonic into the verbal, written, or electronic communication tools and processes for handover that were trialled.

Example of flexible standardisation based on SBAR to address local conditions and patient safety issues

In the Post Anaesthetic Care Unit (PACU) project in Epworth Healthcare and Cabrini Health and The Alfred Hospital in Victoria, standardised clinical handover tools were specifically tailored to facilitate complex multidisciplinary handover of post-operative patients.

The project identified the critical steps and behaviours necessary to reduce clinical risk during handovers and the criteria for a sustainable approach to mitigating communication errors during handover.

Five distinct steps in the process of handover were identified to develop a process support tool for safe PACU handover based on the mnemonic developed specifically for multi-disciplinary handover COLD: (CONNECT; OBSERVE; LISTEN; DELEGATE).

A standardised structure and content tools to guide the delivery of verbal information at handover adapted SBAR to ISOBAR: Identify, Situation, Observations, Background, Assessment, Recommendation: which was tested with focus group participants and perceived as useful to the majority of clinicians.

The sustained use of PACU clinical handover tools within the Epworth Healthcare and Cabrini Health and The Alfred Hospital, including its use for orientation of new clinician staff into the hospitals, was confirmed by the pilot project manager for this evaluation.

In the WACHS pilot project, an inter hospital transfer form was redeveloped based on iSoBAR and agreement on a minimum data set (MDS) developed by clinicians as part of the project. An early audit of the project reported some resistance to the new inter-hospital transfer form, primarily due to a perception of duplication with the existing transfer form and associated data systems. Training in the use of iSoBAR was facilitated by the project managers who travelled extensively across the WA country regions; and educational and marketing materials were developed by the Royal Perth Hospital to help to embed the use of the mnemonic into organisational structures and processes. The sustained use of the iSoBAR mnemonic was reported by the WA country regions as the basis of all inter-hospital transfers since the pilot project, but was also reported as embedded within other written documentation and electronic systems for other types of handovers within WA Health.

4.3 Spreading project tools and resources beyond the original pilot sites

Spread, for the purpose of the evaluation, was defined as uptake of the clinical handover tools and resources beyond the original pilot sites –either to other wards or departments, or to other organisations. To gauge the spread of pilot projects outcomes since the implementation of the pilot program, the evaluation adopted the following approaches:

- during the pilot site consultations, stakeholders were asked about whether and how the clinical handover solution had spread to other health care organisations, including direct inquiries from other organisations outside the participating site itself
- letters were sent to relevant managers in participating hospitals, hospital networks and aged care homes to confirm whether the clinical handover approach had spread to other hospitals or health care settings and whether these were still in use and by whom
- pilot sites were asked to confirm subsequent developments, including presentations at conferences, awards and publications as a means to measure spread in academic circles and in the literature.

It was not possible to track the extent to which materials and tools had been downloaded from the Commission's website or from the websites of other organisations. In one case a company that produced a clinical handover support tool was able to supply sales data.

Many of the factors discussed in relation to sustainability were also important for spread. Factors reported as particularly important for the spread of the clinical handover solutions are discussed and illustrated by example below.

4.3.1 Key factors identified contributing to spread of clinical handover solutions

4.3.1.1. Easily & obviously adaptable to other environments

During the consultations with the pilot projects, the majority of stakeholders supported the notion of flexible standardisation as opposed to a one-size fits all approach. Of those projects implementing structured clinical handover based on the SBAR mnemonic, the tools and processes adopted were tailored to a particular type of handover, and in a number of cases, a particular type of health care setting. SBAR has been easily and obviously adaptable to a range of environments as illustrated in the following examples from the pilot projects.

The WA Health project mnemonic iSoBAR was developed as an adaptation of SBAR for the inter-hospital transfer project funded under the pilot program. Encompassing the transfer of accountability required an expansion on SBAR and the term iSoBAR incorporated accountability in the "Agree a plan" and "Read back" headings. The iSoBAR mnemonic was considered suitable in this setting given the pressure staff felt they were under in handing over clinically deteriorating patients. iSoBAR is now reported as being used in the WA Country regions for a variety of clinical handovers and hence is an example of spread across Western Australian Country Health services for use of iSoBAR for different types of handover.

ISBAR adaptable to other settings and structures in HNE

In the HNE project, SBAR was adapted to ISBAR (introduction, situation, background, assessment, recommendation) to optimise clinical communication specifically concerning handover in the high risk situation of inter-hospital transfer of patients in HNE. The ISBAR mnemonic was readily accepted by clinicians who received 15 minute ISBAR training. The 'I' in ISBAR was considered to be an important adaption to SBAR for the purpose of clinician introduction to the patient. Nurse educators were employed to respond to demand for the training outside of the original pilot project participating sites, demonstrating spread of the ISBAR tools to other parts of HNE even during the implementation phase of the pilot project.

Since the implementation of the project, the ISBAR tool has been adopted in many other settings and structures throughout the HNE health service for clinical and non-clinical information handover and exchange. ISBAR has also been mandated across the entire NSW Health system for use in the "Between the Flags" and "Safe Clinical Handover" programs. The PFU Transfer Referral Form based on ISBAR is now used for all inter-hospital transfer in the region. Second generation diffusion of the 15 minute ISBAR Training and spread in the use of the ISBAR tool across the organisation was reported to have occurred 'spontaneously suggesting that the tool was a practical representation of an idea whose time had come' (Aldrich et al, 2009).

Planning for spread was an integral part of the NEVDGP project which specifically sought to ensure that the tool used (the Yellow Envelope) gathered information and was designed in a way that made it nationally applicable.

4.3.1.2. Enthusiastic champion with good external links

The spread of the pilot project solutions was enabled by the involvement of senior clinicians and /or academics with well-established networks who promoted the project within these networks both during and after the duration of Commission's funding of their projects.

Projects were championed through their involvement in a range of public forums, including international conferences with a focus on patient safety, but importantly through being well connected within the Australian health sector itself.

For example, members of the Mater project team (SHARED) have presented SHARED at many conferences and have shared their information and resources with many hospitals around Australia.

Pilot projects led by senior academics have promoted their clinical handover approach through academic circles. The UTS 'HELiCS' tool has generated international interest and is currently being piloted in six hospitals in the Netherlands. Six out of ten key conference presentations on HELiCS since the pilot project was completed have been in the US or Europe. Aspects of bedside handover and whiteboard assisted communication studied in the Griffith University project have been widely published in international and national journals since the completion of this project.

As mentioned above, the pilot projects were also actively involved in the delivery of the Commission's Using Tools to Make Clinical Handover Safe workshop series and used the opportunity that these offered to establish networks and external links across the system.

4.3.1.3. Active promotion & marketing

Many of the projects developed marketing materials and resources to enable the clinical handover tool to be easily recognisable and capture interest internally to the organisation. The pilot sites did not consider external spread as a part of their project responsibility, but a number reported that their materials and resources did receive strong external interest and recognition.

Marketing was viewed by a number of projects as integral to spread. For the Mater project there was active internal marketing of the tool, including: an education learning guide and information pack, colourful posters, swing tag, end of bed template and sticker for the patient chart. The PACT project developed easily recognizable 'hot pink' marketing resources that generated interest in the clinical handover tool and related support materials, both within Ramsay Health nationally, and other external health care organisations during presentations at conferences and workshops.

GP Partners estimate that they send out approximately 300 yellow envelopes to requesting organisations each month as well as providing the artwork to others. This is not the result of active promotion or marketing per se, but could be linked to a number of conference presentations, word of mouth and their website. The NEVDGP Yellow Envelope tool was widely spread via the use of a commercial supplier to supply orders for the envelope from aged care facilities.

A number of the pilot projects have been finalists or nominated for safety and quality awards. For example, the PACT project was the finalist in the Australian Private Hospitals Association Baxter Award in the category of 'Clinical Excellence' in October 2008 and the runner up at the 'Innovative practice in the Private Sector Conference in 2008.

4.3.1.4. Organisational networks, and /or state support

Support and networks outside the immediate pilot site organisation was important for spread for a number of projects. The Mater SHARED project is now in use across a number of Mater sites after promotion through formal and informal avenues including education sessions, organisational committees and word of mouth.

The Epworth Cabrini PACU project involved a pre-existing partnership between Deakin and Monash Universities and the Epworth and Cabrini Health Services. Since the original project,

further research funding has been secured for rolling out bedside handover in the Epworth, and supporting other quality improvement initiatives in both private hospitals and The Alfred.

Organisational capacity for spread

The PACT (Patient assessment, Assertive communication, Continuum of care, Teamwork with trust) project was undertaken at Albury Wodonga Private Hospital, a Ramsay Health Care facility. The project focused on shift-to-shift clinical handover in surgical and medical wards and on handovers from nurses to visiting medical officers (VMOs). Ramsay Health Care has a number of internal networks and meetings at which the PACT project resources, and the need for improving clinical handover more generally, have been promoted.

For example, within Ramsay Health Care there is a well-established program of nursing meetings and conferences and a Nurse manager Educator Network. There are specific national Ramsay Health Care Obstetric, Surgical/Medical and Psychiatric Working Parties. These organisational networks provide mechanisms for spread. The organization is collating clinical handover tools and resources that may be of general use in its facilities and is preparing an organisation-wide clinical handover policy.

4.3.1.5. Overview of sustainability and spread

Sustainability was an important aspect of the pilot program to evaluate for a number of reasons:

- continuing use of handover tools and processes provided a measure of the ongoing suitability and effectiveness of these tools
- an understanding of the factors that supported sustainable handover solutions can provide insights to others who may be developing or implementing tools and change management processes to improve clinical handover in different health care settings.

Spread was also important to evaluate because:

- handover tools and processes that had spread to other health care organisations demonstrated their suitability and effectiveness for other clinical settings and types of handover
- an understanding the factors that lead to spread of the clinical handover solutions can inform future national and state and territory strategies and funding decisions for improving clinical handover practice.

Pilot projects did not establish systems to objectively monitor or measure the on-going use of the clinical handover solutions and the observations regarding spread and sustainability are largely anecdotal. As mentioned previously, where measurable improvement to patient care could not be demonstrated by pilot sites this made it difficult to create the case for the sustained use of the tool or process. The same reason could apply in relation to spread. The limitations in relation to measuring improvements in clinical care and/or patient safety have implications for the spread of effective handover practice across the broader healthcare system.

Despite these limitations, the key characteristics of spread and sustainability identified in this evaluation will be useful to inform broader national and jurisdictional roll out of clinical handover tools, and the adoption of the National Safety and Quality Health Service Standard for Clinical Handover. Measuring the effectiveness of clinical handover has greater potential to assist in the adoption of national and jurisdictional clinical handover activities. This is considered in the following section.

4.4 Measuring the effectiveness of clinical handover

4.4.1 Measures used in the pilot projects

All of the clinical handover pilot projects developed measures as part of their project evaluation. The measures were generally linked to the specific project intervention and evaluated the extent to which changes in process were achieved and some measured the attributed flow on effects of this, such as reductions in adverse events as a result of improved handover. This attribution was

difficult, as noted in the literature, because of the complexity of systems and human factors that lead to errors and incidents.

Benefits do not always lend themselves to quantitative measures. Positive perceptions and feedback are also important predictors of project success. A number of sites reported that the staff felt that improved handover helped them in a number of ways which also had the potential to impact positively on patient care including:

- to better plan and prioritise their shift
- clarify their understanding and responsibility regarding patients,
- give and receive clearer information, and
- to feel more confident in contacting more senior staff to report or seek advice.

Improvements in communications between different disciplines and sectors were also noted in some projects and staff perceived that this was in part because they had begun using similar styles of communication and common terminology. This underlines the importance of both quantitative and qualitative measures of the impact of clinical handover.

Measures used in the projects appear to fall into three categories as seen in Table 4 below.

Improvements were noted on most of these measures, but as few projects calculated significance, it is difficult to ascertain actual improvements achieved as a result of improving handover. It may be that measures of perception and satisfaction and evidence of spread and sustainability are the best guides to ascertaining the success of the handover tools and processes adopted in the pilot projects.

In general the pilot sites reported that they had made a positive difference to the quality of patient care through their pilot project. However, in the absence of further evaluation and measurement of outcomes for patients at an individual project level, this claim cannot be substantiated for the purpose of reporting on the measurement of outcomes for the pilot program as a whole.

In light of this, the following section of the report discusses the potential to measure the effectiveness of clinical handover across a range of quality domains based on an understanding of measurement issues raised in the pilot projects and the broader literature.

Table 4: Pilot projects measurement areas

Measurement category	Measurement topics
1. Measures of adherence to and satisfaction with changed handover processes	<p>Most sites measured the extent to which a changed handover process was implemented, usually by observing use of the tool and underlying business rules such as:</p> <ul style="list-style-type: none"> • number of times handover occurs at the correct time and place, with the right people involved • degree to which the tool was used as intended • improvements in the efficiency of handover process and information exchange • satisfaction and confidence with the changed handover process.
2. Measures to ascertain the extent to which improved handover has impacted on care processes	<p>Most projects attempted to measure the degree to which the environment supporting the provision of safe and quality care had also improved as a result of improved handover.</p> <p>These measures included:</p> <ul style="list-style-type: none"> • tools to measure increased awareness, knowledge and skills of staff • improvements in processes that support good care such as an increase in timeliness and numbers of discharge summaries to the community and improved medical record documentation • improvements in patient follow up post discharge - timeliness and numbers • reductions in treatment delay and duplication • an increase in patient focus • an increase in incident reporting relating to handover • measures of effectiveness of handover or briefs that identify tasks to be completed by the home team and therefore reduce calls to the night cover • measures of effectiveness of handover or briefs that identify tasks to be

Measurement category	Measurement topics
	<p>completed by the home team</p> <ul style="list-style-type: none"> • feedback from consumers, carers and staff to ascertain satisfaction with perceived and actual impact of the changed handover process on: <ul style="list-style-type: none"> ➤ patient and carer knowledge and understanding of the care episode ➤ patient and carer experience of the care episode ➤ improved work processes ➤ staff knowledge, skills, attitudes and confidence ➤ staff behaviour change ➤ improved care.
3. Measures of impact on patient outcome	<p>A minority of the projects attempted to measure patient outcomes in the form of a reduction in adverse events specifically related to poor handover. Where these measures were used, they were usually collected in a contained and service specific setting (such as post acute care).</p> <p>Measurement of impact of patient outcome included:</p> <ul style="list-style-type: none"> • adverse events related to information and responsibility transmission at handover • reduction in episodes of seclusion and restraint • number of rescues secondary to completing the ISBAR minimum dataset • time between events where a patient deteriorated due to incomplete telephone handover • number of patients receiving the recommended treatment in the timeframes in the 'recommended' section of ISBAR handover or escalation call.

A table of the measures employed in each of the pilot projects is provided in Attachment E.

4.4.2 A suggested framework for developing measures of handover effectiveness

Handover has been described as a “peculiar ritual – unscientific behaviour with no guaranteed outcome” (Mukherjee, 2004; Van Eaton, 2010).

The need for valid and reliable measurement of handover effectiveness is a topic much discussed in the literature. The ability to provide evidence of the efficacy of handover to improve care is seen as a critical aspect of effecting practice change.

A number of commentators in the literature note that, despite a marked increase in activity to improve handover over the past few years, standardised, reliable measurement tools “remain elusive” (Patterson & Wears, 2010) and point to a number of difficulties with handover measurement.

The lack of an agreed purpose for handover is often cited as a barrier, both to standardisation of the process and to the development of measures as organisations “confront uncertainty about the range of activities that should be subject to such efforts” (Cohen & Hilligoss, 2010).

A reliable relationship of handover interventions to measurable patient safety outcomes is not adequately established (Cohen & Hilligoss, 2010) and the “difficulties of attribution also render measurement problematic” (Patterson & Wears, 2010).

The likely consequences of poor handover cited in the literature include:

- adverse events
- delays in diagnosis and treatment
- redundant tests, treatments and communications
- prolonged hospital stays
- readmissions, and
- lower patient satisfaction (Patterson & Wears, 2010).

While studies show that serious problems often follow poor handover and that improved handover results in a decline in adverse events, a direct relationship between handover practices and improved care is difficult to establish, particularly as improvement requires ‘changes in complex social practices and may be subject to “attribution, recall and hindsight bias” (Jeffcott, Evans, & Cameron , 2009).

There is also the issue of the many and varied handover settings and participants and it is unlikely that one size fits all of these. For example, one study found that nurse handovers focused on data and intervention levels and physician handovers focused more on diagnoses and expectations (Patterson & Wears, 2010). Another paper has noted that doctors and nurses prefer different communication styles with doctors preferring a brief “bullet-point” summary and nurses favouring a more discursive narrative (Leonard, Graham, & Bonacum, 2004).

Building an evidence base around success and failure in handover is required as there is not yet a body of evidence that will compel professionals to change practices currently embedded in both individual and organisational routines (Cohen & Hilligoss, 2010). Despite the dearth of agreed measures, the impact of adverse events and poor care emanating from poor handover and inadequate clinical communication on clinicians and health services cannot be underestimated. It may be that relevant case studies can be used, in the first instance, to help make the case for change.

A key aspect of the issues of measurement is the lack of a definition of successful handover. There appears to be broad agreement that handover encompasses both a transfer of responsibility for the patient and corresponding information to enable the responsibility to be effectively enacted to ensure safety and continuity of care (Van Eaton, 2010). A number of measurement frameworks stemming from this definition are explored in the literature. For example, Jeffcott, Evans, & Cameron (2009) propose three key elements of a handover measurement framework:

- information,
- responsibility and/or accountability, and
- system.

The authors noted that both qualitative and quantitative information should be used to measure policy, practice and evaluation under each of these elements. They argued that such measurement can offer an evidence base for handover interventions (Jeffcott, Evans, & Cameron , 2009).

Another way of conceptualising measurement may be to define what we expect from the person who takes over responsibility at handover, and explore how we can measure the impact of handover in fulfilling that role. Patterson & Wears (2010) list the responsibilities of the ‘oncoming caregiver’ after handover as:

- performing technical work competently
- knowing the historical narrative (relevant patient history and chief complaint)
- being aware of significant data or events
- knowing what data are important for monitoring changes and their associated levels of uncertainty
- managing impacts from previous events
- anticipating future events
- weighing trade-offs if diagnostic or therapeutic judgments need to be reconsidered
- planning patient care strategies
- performing planned tasks, and
- involving patients and their family caregivers in decision making.

Rather than categorising measures for handover into processes and outcomes, an alternative approach is to identify 'desired states' or 'preconditions' that handover plays a significant part in achieving.

A number of clinical handover pilot sites discussed the factors that they hoped effective handover would contribute to. These have been combined with the suggestions from the literature, as previously described, and organised into the dimensions of quality, to suggest a number of areas for potential development of handover effectiveness measures.

The pilot projects and the literature propose that effective handover contributes to the safety, appropriateness, continuity and person centred care.

Handover contributes to these dimensions of quality care through creating 'desired states' or preconditions, including clarity of responsibility, shared knowledge of the patient's issues and agreement on care and treatment and behaviour such as correct implementation of treatment and identification of unsafe or unanticipated events.

Measurement of effective handover may involve assessing the extent to which the handover creates these preconditions and equips staff to implement quality care. In and of itself, effective handover does not guarantee quality care – the responsibility and knowledge need to be acted on.

The 'desired states' or preconditions should be measurable using quantitative and qualitative data. Using the Jeffcott, Evans, & Cameron (2009) measurement framework outlined above, potential measures could be linked to the three handover elements of Information, Responsibility and/or Accountability and System, and the Policy, Practice and Evaluation required to achieve them.

Table 5 below draws on both the literature and the measures used in the pilot projects to suggest a number of potential areas for measures development within four quality dimensions.

Table 5: Potential areas for development of measures of clinical handover effectiveness

	Safe	Appropriate	Continuous	Person centred
1. Measures of presence of appropriate approach, organisational support, adherence to and satisfaction with changed handover processes	<ul style="list-style-type: none"> • Staff understanding of handover and communication as a key safety tool • Existence of organisational policy on clinical handover, including consumer role • Allocated leadership for clinical handover is enacted as per the policy and governance intent • Use of standardised tool and dataset adapted to the local environment • Compliance with handover tools, dataset and business rules/principles 			
2. Measures to ascertain the extent to which improved handover has impacted on care processes and created required preconditions for quality care	<p>Patient-specific risks are identified and monitored</p> <p>Adherence to guidelines for handover of high risk patients</p> <p>Safety culture surveys including the role of handover in creating a safety culture</p> <p>Staff awareness of and attitude towards communication as a key safety tool</p> <p>Improvements in quality and effectiveness of teamwork</p> <p>Improvements in efficiency and accuracy of information exchange</p>	<p>Care is carried out as planned for each patient</p> <p>Duplication and redundancy in investigations, care and treatment are avoided</p> <p>Delays in diagnosis are avoided</p> <p>Unusual, patient-specific issues are identified and addressed</p> <p>Changes made to care based on anticipated changes in health status as discussed at handover</p>	<p>Shared understanding between treating health professionals, the patient and family regarding the course of care, discharge date and post discharge plans</p> <p>Relevant staff have clarity of responsibility for a patient at any point in time throughout the patient journey</p> <p>Care is implemented as planned despite movements between health professionals and settings</p> <p>Unexpected changes to care are known and complied with by all relevant parties</p> <p>Lack of conflicting views on care requirements</p> <p>Reduction in staff stress due to ambiguity and conflicting information</p> <p>Improvements in patient follow up post discharge - timeliness and numbers</p>	<p>Care integrates patient and family's wishes</p> <p>Families feel involved patients and their families in their care and decision making</p> <p>Increased patient and carer understanding of their care journey</p> <p>Increased staff understanding of person focused care</p> <p>Staff, patient and family are clear about their roles in the course of care</p> <p>Patient compliance with care linked to shared understanding and clarity of roles</p>
3. Measures of impact on patient outcome	<p>Care is escalated when required as per handover discussions</p> <p>Reduction in errors and adverse events caused by miscommunication, misunderstanding and confusion regarding responsibility for the patient</p> <p>Reduction in errors with the potential to cause harm</p>	<p>Errors in care planning, orders and prescriptions are detected before they are implemented</p> <p>Detection and reduction of incorrect care due to miscommunication or lack of communication</p> <p>Patients receiving the recommended treatment in the</p>	<p>No surprises for staff, patient or families during the course of care as a result of poor communication and shared understanding</p> <p>Avoidance of extended length of stay due to problems with coordination and lack of shared understanding</p> <p>Reduction in unplanned readmission due to</p>	<p>Reduced patient and family stress due to ambiguity / conflicting information / mismanagement of specific issues</p> <p>Patient complaints and feedback regarding poor care and communication</p>

	Safe	Appropriate	Continuous	Person centred
	Reduction in episodes of seclusion and restraint	timeframes as recommended at handover	misunderstanding/ miscommunication of post discharge care needs	
	Number of rescues secondary to completing handover			
	Time between events where a patient deteriorated due to incomplete telephone handover			
	Increase in incident reporting relating to handover			

4.5 Overall outcomes and impacts of the pilot program

The overall outcomes and impacts of the National Clinical Handover Initiative Pilot Program are summarised as follows.

The pilot program:

- raised the profile of clinical handover as a key safety and quality issue and established a national impetus for change
- fostered expertise and clinical handover champions for change
- embedded improved handover in a number of health services
- developed a range of tools for improving different types of handover across different settings
- reinforced the need for effective approaches to change, spread and sustainability
- contributed to jurisdictional handover priorities and policies
- created a body of published work on pilot processes, outcomes and lessons learned
- identified gaps in handover knowledge and practice for further investment and development.

This pilot program had a substantial impact in terms of raising the profile of clinical handover and establishing a national impetus for change. It fostered innovation and expertise, and was viewed by pilot sites as having delivered some sustained improvements in clinical care processes relating to handover. A number of excellent tools have been developed and tested and the project has made a practical contribution to the handover literature.

The importance of effective change management has been reinforced and valuable lessons on spread and sustainability gained. While the pilot program was not able to demonstrate improvements in patient care outcomes, this is an area recognised in the literature as requiring significant development and was unlikely to have been achieved over the course of a short pilot. The Commission has built a strong platform for the next phase of its program and this evaluation makes a number of suggestions for further work and investment in the 'Issues for the Commission' and 'Conclusions' sections of this report which follow.

5. Implications of the evaluation of the pilot program - key issues for the Commission

The evaluation has highlighted a number of specific issues the Commission could consider when developing future strategies and plans for clinical handover improvement, as these are likely to strongly influence the success of ongoing clinical handover improvement and the rollout of the National Health Service Standard for Clinical Handover. These are:

- end user focus
- developing a compelling case for change
- consumer and carer involvement
- future role of the Commission in supporting and promoting effective clinical handover.

These are discussed in detail in this section of the report and reflected in the recommendations.

5.1 End-user focus

The term “Clinical handover” encompasses a vast and diverse range of situations given that it includes “the transfer of professional responsibility and accountability for some or all aspects of care for a patient, or group of patients, to another person or professional group on a temporary or permanent basis” (National Patient Safety Agency, London, as cited in Australian Medical Association, 2006, p.8).

Within this broad term there are a number of types of handover that involve different participants, settings, methods, purposes and timeframes. Transfer of patient care can occur within an organisation or between organisations, and involve communication about immediate care of severely ill people in high-risk situations or about longer-term care involving need for co-ordination of several different types of community care providers. Many clinical handover situations will involve more than one type of health professional or discipline, but in hospital practice in particular, a vast number of clinical handovers also occur within the same profession at the time of shift changes.

The literature review produced for the Commission by the University of Tasmania eHealth Services Research Group in 2008 (Wong, Yee, & Turner, 2008) identified the following key handover scenarios in the literature:

- ambulance to emergency department handover
- inter-departmental transfer (such as Emergency Department to Intensive Care Unit) handover
- shift-to-shift medical and nursing handover
- inter-profession handover
- inter-hospital handover, and
- hospital to community handover.

In addition, clinical handovers also take place from the community to the hospital and between providers of community care. Given the differing degrees of complexity involved, each of these different situations has its own set of risks, barriers, and facilitators for change.

The Commission has identified 4 principles for handover (Handover requires preparation; Handover needs to be well organised; Handover should provide environmental awareness; Handovers must include the transfer of accountability and responsibility for patient care) (The OSSIE Guide).

New South Wales Health has largely modelled their key principles on those of the OSSIE Guide which incorporates the following aspects into their principles of: (Leadership Valuing handover,

Handover participants, Handover time, Handover place, Handover process) NSW Health Acute Care Taskforce, 2009).

While the OSSIE Guide is based on shift-to-shift handover in a hospital setting the Principles set out in the guide are applicable to all types of handover. Although the key principles and features of effective handover are likely to be similar across different types of handover, the specific strategies, tools and resources that are likely to be of most value in achieving an effective handover may differ. It is therefore advisable that any materials developed for specific clinical handover scenarios should be consistent with the set of overarching key principles articulated in the OSSIE Guide.

The broad scope of clinical handover has implications for future efforts to improve care. The nature of the pilot program was that clinical project leaders were enthusiasts with a specific interest in the topic. The pilot program funding supported them to spend time dedicated to improving clinical handover in their particular setting. These pre-conditions will not necessarily be met for more systemic attempts to improve clinical handover.

The importance of improving clinical handover will be one of a number of quality improvement messages in a crowded field. Generic resources are very useful for people in management or quality assurance positions who have responsibility for improvement across a range of clinical handover areas. But they may be less attractive to clinicians who want the information that is likely to be helpful for the specific type of clinical handover they are concerned about. Clinicians who want to improve handover practice, or who are asked to help lead this activity within their practice setting, may not have the time to search through the existing generic material or various project reports to find information that is directly relevant to the specific type of clinical handover they are aiming to improve.

Specific information also needs to be developed to guide consumers and carer involvement in handover.

While the pilot projects were multidisciplinary, at many sites nurses were the driving force in implementing change and in promoting spread. A particular challenge for the Commission will be how it develops and frames its future work and materials so that they engage the interest of doctors and of the institutions and organisations providing education and training to medical professionals.

The quality improvement literature highlights the need to target key groups with focussed messages and resources that are relevant to their situation (Grol, Wensing, & Eccles, 2005). The same information may need to be presented in different formats for different audiences (Sladek, Bond, & Phillips, 2010). Change management strategies should also be tailored to recognise barriers and adapted accordingly in specific situations (Baker, et al., 2010). A recent report of one (non-pilot) hospital's experience in spread of the use of ISBAR for clear communication noted that teaching craft-specific professional groups seemed to increase staff engagement and that specific strategies needed to be used for different groups including development of a shorter version of the training course for time-poor experienced clinicians (Finnigan & Flanagan, 2010).

The pilot program funded by the Commission has led to a rapid growth in the resources available to support more effective clinical handover. Some of these resources provide a comprehensive overview of clinical handover and strategies and tools for improvement, useful for quality managers and others with a keen interest in clinical handover.

Other resources are applicable in very specific clinical scenarios but at present much of this information is contained within the project reports and is not necessarily easy to find. The Commission will need to consider how it can identify which specific types of handover are priorities for improvement within the current broad scope of the pilot program and the best ways of presenting current material and developing new material that will appeal to relevant user groups.

5.2 Compelling case for change

Project leaders of the pilot programs had strong beliefs in the importance of improving clinical handover. Many could recall specific instances where patients had suffered as a consequence of poor handover and where unnecessary costs had been incurred because of duplication or delay in diagnosis and management. Others referred to the studies that supported the statement made in the literature review prepared for the Commission by the eHealth Services Research Group from the University of Tasmania: "clinical handover is a high risk scenario for patient safety with dangers of discontinuity of care, adverse events and legal claims of malpractice" (Wong, Yee, & Turner,

2008). But in a number of instances, people managing the pilot projects also reported difficulty in convincing others that there was a need to change clinical handover processes or that this was a priority for improvement.

Improvement efforts take time, effort, and resources and may have significant workforce implications. In many instances the case for change needs to be compelling if these barriers are to be surmounted. One difficulty is that, as the authors of an extensive review of published literature in the area of clinical handover have pointed out, it is not clear what magnitude of patient safety gains can reliably be expected from improvement, and without a substantial and consistent body of solid evidence it may be difficult to compel professionals to change practices that are habitual at an individual level and deeply embedded in local organisational culture (Cohen & Hilligoss, 2010).

While better evidence is needed, and the Commission will no doubt be seeking to promote and encourage research in this area in line with the functions outlined in the Bill currently before Parliament (National Health and Hospitals Network Bill, 2010) there are numerous instances where a solid body of research evidence on effectiveness has failed to alter clinical practice.

However other types of evidence and levers can be used to build a compelling case for change. A nationally consistent agreed set of measures and tools for audit could help demonstrate ways in which current local practice differs from national or international norms or acknowledged best practice. Individual stories or coroner's reports can provide momentum for change, particularly if the examples and risks are viewed as being relevant to the particular health care setting. Benefits for staff may relate to reduction in stress, improvements in staff relationships or increased confidence in clinical decision-making. There may also be potential benefits in terms of reduction in costs from more efficient management or reduced duplication requirements. Some pilot projects measured staff perceptions of changes in these areas, although none attempted to provide estimates of savings.

Factors that contribute towards a compelling case for change are likely to differ for different groups. Further work that models system costs and benefits, or which provides information about inefficiencies in current practice may provide additional incentives for management to support change. The Commission has already indicated its intention to include clinical handover standards in accreditation requirements. Other levers that may help reinforce the case for change may include incorporation of clinical handover requirements in credentialing or registration requirements or incorporation into performance management schemes.

5.3 Consumer and carer involvement

While some projects actively sought to engage consumers and carers and to obtain their input and feedback (for example, TeamSTEPPS®, St John of God CHOCCYS, Griffith University Bedside Handover, and Hunter New England ISBAR) most did not include direct consumer involvement.

The draft National Safety and Quality Health Service Standard for Clinical Handover identifies the desirability of consumer and carer involvement in handover and asks for evidence of mechanisms to demonstrate patient and, where relevant, carer involvement in clinical handover. This forms an important component of consumer participation in healthcare more broadly. However, patient perception and involvement in handover is one of the areas where evidence about roles, benefits and risks remains uncertain and under-researched (Wong, Yee, & Turner, 2008). For example, evidence about attitudes, benefits and consequences of bedside handover is largely unexplored.

The role a patient could be expected to play in handover obviously differs according to their health status and the clinical situation – handover at hospital discharge has different expectations and requirements than handover following surgery. The Commission should consider refining its requirements about the role of patients and carers in handover. Future projects and research could be directed in this area.

As a separate issue, consumer involvement in project planning and oversight of any future projects in this area should be actively sought, including in projects or work aimed at identifying sets of process and outcome measures. Consumer input can provide a different perspective on the effectiveness and success of handover. The Commission could also consider how to harness consumer advocacy of the need for improvement and the ways in which consumer representatives involved in governance of various health service delivery organisations could play a role in promotion and oversight of clinical handover improvement.

Rather than develop a separate recommendation for consumer and carer involvement in handover, development and promotion of the consumer role has been integrated into a number of the recommendations in this report.

5.4 Future role of the Commission

During the pilot program the Commission played an important role for pilot projects over and above the provision of funding. Many pilot projects noted the kudos that involvement with the Commission brought and the ongoing support and advice provided by Commission staff when needed. The need to report progress and results was an external driver that helped maintain project momentum.

There are potential future roles for the Commission in relation to change:

- as an enabler of change – identifying the need for change and making it easy for on-the-ground change to occur
- as a promoter of change – advocating for clinical handover improvement to feature as a priority generally within the health care system
- as a driver of change – negotiating for system levers to be introduced that would support and reinforce improvement.

The proposed introduction of a National Health Service Standards is an example of the type of system lever that should help drive change through accreditation processes. There may be potential to use other system levers to increase the awareness, knowledge and performance of individual health professionals – for example, including standards for clinical handover requirements in credentialing and registration processes. Similarly, a substantial amount of work could be undertaken to advocate and actively market and promote clinical handover improvement, both in general, and specifically with the aim of making this a priority for health care delivery organisations, providers of undergraduate and postgraduate education and other national groups.

This pilot program has focused on ways to enable and foster change at a health service level. There is a significant body of work still to be done in this area, although there is now significant activity in many of the jurisdictions. Future improvement will require funding for dedicated staff to drive the change process, more targeted and tailored resources, and provision of support networks and expertise.

There is a program of work at a more basic level that will be important in providing the building blocks for change such as a national set of measures. There is also an internationally recognised need for scientifically sound and robust research that can help provide a reliable body of direct evidence about the effects and effectiveness of standardisation of handover procedures (Cohen & Hilligoss, 2010). There is potential for this evidence gap to be investigated through research in Australian health services.

Future evolution of the Commission's clinical handover program will require decisions about the strategies the Commission should pursue, how the Commission should best link with the activities being pursued at state and territory level and the balance of Commission activities between enabling change, advocating for change and driving change.

6. Conclusions and recommendations

The Commission has indicated that clinical handover will remain a priority for improvement for the foreseeable future and has demonstrated this with the trial and release of a draft National Safety and Quality Health Service Standard for Clinical Handover. This will require an ongoing role in actively promoting improvement in clinical handover and helping health services meet the national standard over this time.

The pilot program invested in practical initiatives designed to help health service leaders achieve change. Sustained systemic improvement is likely to require:

- further investment in change management at a clinical level
- continuing development of resources to support change efforts
- a planned approach to promotion and spread, and
- strong advocacy for clinical handover improvement to be incorporated into the work of other national groups, so that there are a range of system levers supporting improvement.

The tender documents for the pilot program stated the outcomes this program were to seek to achieve:

- significant, sustained and measurable reductions in communication gaps
- reliable measures of impact on patient outcomes
- national learning on handover across the continuum of care, and
- standardised operating protocols for handover based on the best available evidence and designed to accelerate systemic improvements.

The program has been more successful in realising some of these objectives than others. The Commission's pilot program has significantly advanced national learning on handover across the continuum of care and has enabled testing and development of approaches to improving clinical handover, tools and standard operating protocols. It has also helped promote development of policies and activities within other organisations and states and territories. These achievements have provided a strong base for the future work of the Commission in this area.

However it has not delivered on its objective of achieving reliable measures of impact on patient outcomes. The evaluation has also identified a need for further work to build a strong case for change, to target materials for different priority areas within the broad general field of clinical handover, to help support change in different settings and to actively market the importance of change and the resources available to support it. The recommendations are designed to suggest ways in which the Commission may address these issues.

6.1 Need for reliable measures

The lack of reliable measures of impact on patient outcomes emerging from the pilot program is not a reflection on the approaches taken by the individual pilot projects. Development of these types of measures was not a primary objective of any of the funded projects. While many of the projects developed measures as part of their evaluation, in the main these were process measures related to the specific intervention being implemented at the pilot site or measures of perceptions of improvement (Table 4 and Attachment E). Demonstrating impacts on patient outcomes would have been extremely difficult in the relatively short time periods during which these projects were undertaken.

Across the projects there were some common themes relating to safety, appropriateness and continuity of care and the extent to which care is centred on the needs of patients, their families and/or carers. The Commission has an opportunity to build on the work undertaken during the pilot program to further research and develop an agreed national set of process and outcome measures, in conjunction with consumers, clinicians and managers. These could include specific indicators

relevant to different settings and types of handover. A number of suggestions regarding measures, as derived from the evaluation and the literature, have been made in Section 4.4 of this report.

A set of measures could provide health services with a means to measure their baseline performance and the effectiveness of their improvement efforts, help make the case for change and provide valuable support for the Commission's Clinical Handover National Safety and Quality Service Standard implementation. It would also help build the international knowledge base about the relationship of interventions to measurable patient safety outcomes.

RECOMMENDATION 1: That the Commission develop a set of process and outcome measures that could be used to assess effectiveness of clinical handover and to guide health professional and health service improvement efforts.

6.2 Developing the compelling case for change

Establishing a compelling case for change is a key task of any improvement initiative. Factors that help build this case for change are likely to differ for different craft groups. Research evidence about impact on patient care and well-being is one type of evidence to support a case for change. However a range of other types of information can also be used in advocating for change including presentation of specific cases of patient harm, identification of advantages in terms of reduction in stress for staff, and economic benefits accruing from more efficient management of patients or reduced duplication in diagnosis and care.

Some pilot projects measured staff perceptions of changes in these areas, although none attempted to provide estimates of cost savings. Further work that models system costs and benefits, or that provides information about how current practice differs from international norms or acknowledged best practice may provide additional incentives for management to support change. The Commission has already indicated its intention to include clinical handover standards in accreditation requirements. Other levers that may help reinforce the case for change may include incorporation of clinical handover requirements in credentialing or registration requirements or in performance management schemes.

Information that supports the case for change should be tailored so that it is of direct relevance to different target groups (such as consumers and carers, managers, medical professionals, nursing professionals, education providers etc). A series of brief summaries designed to emphasise aspects that will appeal to different target groups could help build commitment to change.

RECOMMENDATION 2: That the Commission identifies persuasive evidence that supports the case for change to current clinical handover practices. The Commission could also explore the potential to use other levers to increase motivation to improve current practice.

6.3 Targeting and tailoring

The generic term "clinical handover" encompasses a broad range of clinical situations from shift-to-shift nursing and medical handover through to multidisciplinary handover between different organisations and groups of health care providers. The projects funded by the Commission reflect the diversity of clinical handover scenarios. While the information and resources needed in each different clinical scenario will have much in common and should conform to key handover principles, specific needs and types of information required will differ depending upon the type of handover and the groups of people involved.

Quality improvement literature emphasises the importance of identifying specific groups of clinicians and tailoring resources for each user group, so that messages are targeted, extraneous information is removed and information is presented in styles and formats that are appropriate for each of the different audiences. At present the tools and resources produced by the pilot program are not collated or presented in a way that is focussed on the needs of clinical end users interested in improving specific types of handover.

The available resources do not provide analysis of the issues around engaging consumers and carers in handover across various settings. Patient perception and involvement in handover is an under-researched area where evidence is lacking. Attitudes, benefits and consequences of bedside handover are largely unexplored. The role a consumer could be expected to play in handover obviously differs according to health status and the clinical situation. Further research in

this area is required. Information about the role consumers could and should play could be clarified for each of the specific common handover situations.

The next stage in evolution of the Commission's program could be to identify priority areas for improvement within the broad general domain of clinical handover. For each of these handover situations the Commission should tailor and package materials for specific clinical target groups so that it is easy and quick for people to find the information that is of most relevance to them. Information, resources and examples relevant to specific high priority clinical handover scenarios could be abstracted from the comprehensive resources and project reports on the Commission's website and repackaged and supplemented with additional information to provide tailored "change packages".

For example a change package for clinicians wanting to improve handover between aged care homes and hospitals might contain:

- surveys about what is known about current practice in Australia
- information from literature reviews on the handover risks and solutions specific to interactions between aged care homes and hospitals
- persuasive reasons for changing current practice in this setting (the "compelling case for change") including benefits of improving handover at patient, staff and system level. For example the leaders of the NEVDGP project noted that aspects of staff satisfaction improved during their project - Aged Care Home staff felt more confident in their management of transfers to hospital and telephone calls from Emergency Departments were more respectful
- strategies for involving consumers and carers in handovers between aged care homes and hospitals
- a short guide to planning and implementing change based on sections 2 -6 of the OSSIE Guide but tailored for the Aged Care-Hospital interface and using examples from the two Commission pilot projects in this area. This could include information such as that contained in the appendices to the NEVDGP report on stakeholders and how to engage them, barriers and issues that may occur and suggested resolution strategies
- tools and resources that have proved useful for improving clinical handover in this situation. Again the NEVDGP report has information on the tool which was trialled as part of the project but the report also contains other suggestions such as a self descriptor sheet for aged care homes that would reduce likelihood of a mismatch between the care required by a resident discharged from hospital and the capacity of the home to provide this care
- suggested indicators to measure improvement and ways to undertake audits of current practice and any improvements in care. A shortened version of the GP Partners audit could be valuable in this section.

Advantages of this kind of approach are:

- specific clinical groups can quickly and easily find relevant information
- materials can be developed so that, while they are tailored for specific groups and situations, they are all consistent with the set of overarching nationally agreed and consistent core set of principles within the OSSIE Guide for Clinical Handover Improvement endorsed by AHMC in October 2010
- at an organisation or state level, the availability of tailored information means that quality improvement efforts can focus on managing the change rather than in finding and collating relevant information and tools
- capacity to schedule regular reviews of the currency and applicability of the material
- use of the materials can be promoted to relevant consumer and clinical industry groups, and

- gaps in the resources on offer are more readily identifiable.

RECOMMENDATION 3: That the Commission identify a number of specific clinical handover situations where improvement is a priority and develop easy to find “change packages”. These “change packages” should contain information, tools and examples relevant for that particular situation and be targeted to be of direct relevance to the consumers and clinicians involved.

6.4 Networks of expertise

The pilot projects clearly and almost universally demonstrated that even when resources, tools and standard operating procedures are readily available, achieving clinical handover improvement requires a process of change management.

Most leaders of pilot projects stressed the need for persistence, resilience and the importance of access to expertise and advice to support them in their change management processes. While some project leaders and staff have moved onto other areas and do not have an ongoing involvement with clinical handover issues, others have continued to develop expertise in the area through doing further research or extending their involvement in practical improvement initiatives.

The project leaders are significant resources developed through the pilot program. Following the workshops organised by the Commission, and their own dissemination efforts, many of the project leaders report contact from others who are looking for help and advice.

These leaders and change champions could be a valuable long-term source of knowledge whose expertise would be useful to others attempting to change clinical practices or undertake organisational improvement efforts that would help meet the Commission's national clinical handover standard. Some people already fulfil this function within their own networks or state but the Commission has an opportunity to foster a broader, more formal national network of people to assist with the next phase of clinical handover improvement. Activities could range from dedicated workshop sessions at Commission conferences to webcasts or opportunities for one-on-one discussions. A network of this nature might also help build partnerships for future research and research translation efforts.

RECOMMENDATION 4: That the Commission identifies people who have led successful clinical handover improvement projects and formally harnesses their expertise so that they can provide advice and assistance to others.

6.5 Rural and regional issues

Pilot projects that aimed to achieve change in rural and regional settings identified a number of common challenges. Many smaller services have limited on-site 24 hour medical cover and after hours communication can be difficult because of poor mobile phone coverage or long travel times. Rural services may experience difficulties in recruiting and retaining skilled staff, and there is often heavy reliance on visiting medical staff including general practitioners. These features of rural practice can create additional practical difficulties in achieving change over and above those experienced in metropolitan areas.

RECOMMENDATION 5: That the Commission undertakes a needs analysis that focuses on the specific challenges experienced by rural and regional health service providers. It should also aim to identify the kind of assistance that would be of most value in helping services in these areas meet the future National Health Service Standard for Clinical Handover.

6.6 Planning, promoting and monitoring spread

In most cases it was not possible to gain objective measures of the use of resources produced by the pilot projects. A number of projects focused on producing transferable resources and many project leaders actively disseminated information and tools beyond their original sites. However, formal planning for spread and development of indicators that could be used to assess the extent to which this had occurred was not a required deliverable from any of the projects.

The series of workshops sponsored by the Commission were popular within the sector. Project leaders reported keen interest from people attending and received a number of requests for resources both during and after the events. However, there was little quantitative information to measure uptake or spread nationally as there was no method for recording or monitoring requests for resources during the life of the projects or subsequently. Developing a formal plan for promoting, managing and measuring national spread would be a logical next extension of the Commission's pilot program.

Use of information technology will be one of the methods used to assist spread. While the types of information technology used in future will differ according to specific target groups the website is likely to continue to be a key method for making resources available. The Commission's website currently presents the large amount of clinical handover information and resources resulting from the pilot projects in a way that reflects the commissioning process. While some resources are easy to find, others are not. Potential users may have to search through project reports to find material that may be of relevance to them. There is currently no capacity to monitor downloads. While monitoring website accesses and downloads is at best a crude proxy for use, incorporation of the capacity to do this into any future website redesign would provide one means of assessing the extent to which there is demand for specific resources.

RECOMMENDATION 6: That the Commission develops a national plan for spread of clinical handover improvement activities and resources. This should incorporate a set of indicators for monitoring to assess uptake of specific resources and effectiveness of the plan in general.

6.7 Involving all sectors

Many jurisdictions have been active in promoting clinical handover improvement before, during and after the Commission's pilot program (Figure 1). The South Australian Department of Health has made a significant commitment to build on the TeamSTEPPS® program funded by the Commission and is developing a comprehensive clinical handover policy.

Queensland Health have produced a clinical handover strategy for 2010 – 2013 with six themes encompassing culture change, a patient centred focus, and a commitment to implementing improved clinical handover systems and measuring and reporting on progress.

New South Wales Health has made a strong investment in meeting the Garling Report recommendations on clinical handover improvement with development of key principles, templates and measures. Other states and territories are trialling pilot programs and building on the work of the last few years. The Commission's agenda for improvement is becoming embedded at a jurisdictional level.

Involvement of the private sector and Divisions of General Practice in the pilot program was a real strength of the program – it brought another dimension to the projects that were undertaken and provided the potential for different pathways for spread. Each sector links with others, and for systemic change to occur all needed to continue to be engaged and included in the Commission's activities. Many projects involved collaboration with Universities and this has led to inclusion of clinical handover in some undergraduate nursing curricula. As part of their strategy for sustainability, SA Health has been working to gain integration of teamwork and communication training into university courses for health professionals in that state.

However, providers of post-graduate education and training, in particular the Medical Colleges, have not been engaged in the same way with the Commission's pilot program. Research commissioned by the Australian Medical Association in 2003 and quoted in the 2007 guide to improving patient safety found that it was generally accepted that handover in Australia is neither well taught nor well practiced. The messages that doctors receive on the importance of clinical handover from their health service delivery organisations and from the body that represents doctors' interests should be reinforced by the professional associations responsible for setting standards and providing post-graduate education and training. While some Colleges have placed an emphasis on this area, many do not feature clinical handover principles and protocols in their courses or on their websites. The next phase of the Commission's work in this area could seek to engage the professional Colleges in recognising the importance of taking action to improve clinical handover.

The Commission should also consider how best to harness consumer advocacy and support for clinical handover improvement, and should promote the involvement of consumers in quality improvement planning and oversight.

RECOMMENDATION 7: That the Commission continue to promote and support initiatives that lie outside of the State based public health service delivery system. As well as sectors such as general practice, community health and private health care, the Commission could work with groups whose support for clinical handover improvement could reinforce efforts of health care providers e.g. professional Colleges and Associations, registration and credentialing bodies, and consumer organisations.

6.8 Future investment decisions

This report has highlighted a number of areas where future investments in improving clinical handover could be made. These include:

- development of a robust set of process and outcome measures
- measurement of current practice using the nationally agreed measures
- investigation and modelling of system costs and benefits
- development of targeted change packages for specific types of handover
- a formal national network of experts who can promote and assist change
- redesign of the Commission's website so that information can be easily found and data on use of resources can be captured
- active marketing of clinical handover improvement within a formal plan for spread, including use of innovative internet based approaches
- extension of initiatives to the postgraduate sector
- continuing support for local improvement efforts across all sectors.

All projects highlighted the difficulties of attempting to introduce change, the need for dedicated time and resources to support the change management process and the importance of the funding provided by the Commission. Future clinical improvement efforts are also likely to require dedicated time although the resources needed may lessen as the national "bank" of tools, information and expertise grows.

Some states and territories have already made strategic decisions about the type of clinical handover improvement activities they will support and how they will go about doing this. Clearly it would be sensible for the Commission to continue to work with specific states in areas that are state priorities. Some of the recommendations for investment made in this report may fit into this category.

The evaluation does not recommend investment in any particular type of clinical handover tool, standard operating protocol or approach. Evaluations undertaken by individual projects and this evaluation of the pilot program as a whole show that there are some tools and approaches which were clearly perceived to be of value at the pilot sites and which have proved attractive to other sites and other organisations. These include the adoption of various forms of flexible standardisation based on SBAR for various types of handover scenarios, the Yellow Envelope for Aged Care / Emergency Department handover, the focus on improving teamwork and communication that is provided by TeamSTEPS®, and the SHARED approach adopted in the MATER for obstetric and maternity handover.

However there were few objective, robust, comparable measures of improved processes and outcomes resulting from the use of these tools. In the absence of an agreed common set of measures for clinical handover, and without ongoing monitoring of performance and cost, the evidence for supporting one approach over others is not available. The body of international research evidence is also insufficient to support any one approach over others.

Tools that have broader application in support of improving handover such as the 'Leading Clinical Handover' online education package, the HELiCS reflexive video review of handover and the GP Partners aged care to and from hospital audit package also have the potential to make the case for change and equip staff with ideas and information for improvement.

The Queensland online education course may require the development of a short version – as originally suggested by the project team – to make it more universally appealing and practical and to combine this with a marketing strategy to boost the numbers of health professionals aware of and completing the education. Similarly, the GP Partners aged care 'to and from hospital' audit tool may require a simplified version to be developed that makes it easier for aged care facilities to use it as part of their standard audit routine. HELiCS has been shown to be a powerful tool for change, but requires careful and expert implementation guidance. A successful roll out of these tools more broadly would require targeted strategies and investment.

While the data available are insufficient to make evidence based recommendations, a pragmatic approach would be to support the use of tools and approaches that are perceived to improve handover, where use has been sustained at the pilot site or sites and has spread beyond these sites, and where the cost and risks of implementation are low.

RECOMMENDATION 8: That the Commission consider a number of areas for future investment in clinical handover by building on the outcomes of the pilot program and aligning future national investment decisions to state and territory policies and priorities for clinical handover.

6.9 Summary

The National Clinical Handover Initiative Pilot Program had a substantial impact in terms of raising the profile of the importance of clinical handover and establishing a national impetus for change. It fostered innovation and expertise, and was viewed by pilot sites as having delivered some sustained improvements in clinical care processes relating to handover. It has helped identify gaps and opportunities for further research and development work. While it did not achieve all it set out to do, this is because the initial objectives were highly ambitious.

To date, the international research investment has failed to identify reliable measures of impact on patient outcome or to produce strong research evidence that quantifies the benefits associated with particular approaches, tools or standard operating protocols. The Commission has built a strong platform for the next phase of its program and several of the specific initiatives it fostered have potential for broader implementation and further investigation of their effects on patient care. The pilot program outcomes will continue to make a significant contribution to improving the safety and quality of patient care.

Attachment A – Evaluation methods

This Attachment A contains the following:

- program logic
- list of success criteria and evaluation questions
- stakeholders, and
- consultation tools.

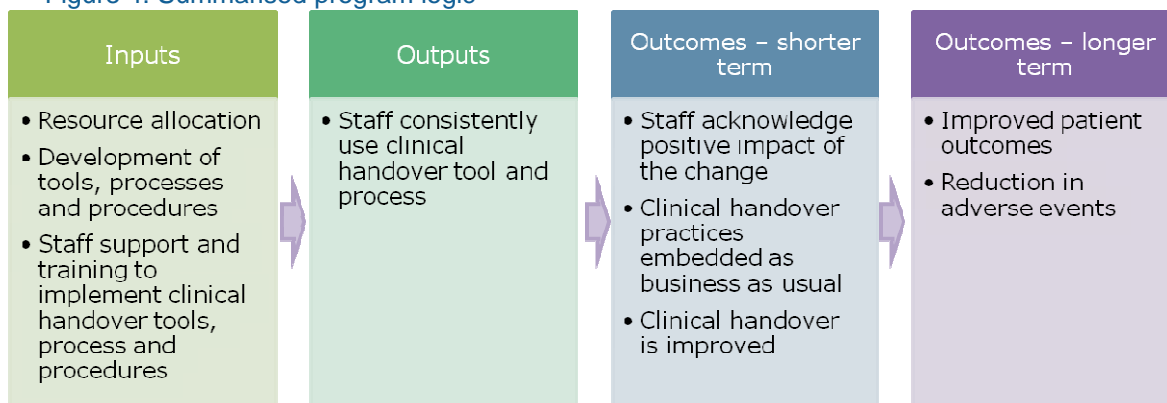
Program logic

A range of program logics were developed in the initial stages of the evaluation to facilitate understanding of the National Clinical Handover Initiative Pilot Program including logics based on Bennet and Funnell models. The Funnell logic in particular was used to identify details in each of the following domains:

- hierarchy of outcomes
- success criteria
- factors affecting success within program control
- factors affecting success outside program control
- evaluation question
- data sources.

For the purposes of this report a summarised schema was developed to capture the program's inputs, outputs and outcomes. This is included below.

Figure 4: Summarised program logic



Success criteria and evaluation questions

Success criteria

The success criteria identified are detailed below:

- Resources are earmarked to clinical handover practice
- Clinical handover tool is likely to be health care /pilot site specific
- Staff are fully trained and understand what is required
- All relevant staff use the tool when required
- Staff activities and use of the tool is likely to be health care /pilot site specific
- Staff are positive and engaged in using the clinical handover tool
- Health care professionals have the skills, knowledge and attitude to adopt clinical practice handover
- Clinical handover practice is business as usual
- Clinical handover practice is sustainable and spread to other health care settings
- Fewer adverse events due to clinical handover.

Evaluation questions

The evaluation questions identified are detailed below and are grouped by input, output and outcome.

Input

1. Were the resources made available for the pilot the only resources available for clinical handover activities? How were (other) resources secured (in addition to Commission funds)? What skills were required? What has happened to these staff?
2. What material investments, time investments were required?
3. What communication strategies and promotional materials did you employ and how effective were they for implementation and maintenance?
4. What was the purpose of your pilot? Was it successful?
5. What made you decide on this tool or approach to clinical handover? How were the tools designed?
6. In what way has the clinical handover tool been tested? What were the outcomes?
7. Have consumer (reps) been involved in the pilot?
8. Have you used the OSSIE Guide? What other resources have you consulted?
9. Was training required during the pilot? Is there an ongoing need for training? Did you use internal or external training resources? What type of training did you use? Was the training effective?

Output

10. Have staff been supported by management to use the tool?

11. What is the level of commitment by staff to use the tool? Do staff find it useful/useable? How often and by whom has the tool been used?
12. What is involved in the use of the tool?
13. How much did the tool cost? Who bears the cost? Does the expected benefit outweigh the cost? Is there an ongoing cost in doing clinical handover? In terms of ongoing costs, who made the decision to continue? Will you continue to use this tool?
14. If required, more site specific questions about the type of activities they were involved in. How effective were these?

Outcome

15. Would you implement the same tool again? Why?
16. Do staff see the benefits of using the clinical handover tool? Have there been any difficulties? How have these been overcome?
17. Has the project made a difference? How?
18. How could the project have been enhanced?
19. How do medical, nursing, allied health views of the project differ?
20. Was the tool easily embedded into daily procedures?
21. Which aspects of the project were difficult? What problems arose while implementing the changes? Have there been any negative aspects of introduction/use?
22. How did the target group experience the intervention and the changes?
23. What type of skills, knowledge and attitude are required about clinical handover and the use of tools to support best practice?
24. Is clinical handover and the use of a tool now business as usual, or is further cultural change necessary to achieve this outcome?
25. Was the project a success –and how do you define success?
26. How did you measure improvements? How effective were these? What are the specific measurable changes and targets?
27. What specific strategies have been used to embed this change within the
28. organisation/daily business?
29. Has the intervention spread beyond the initial ward/unit/organization/state? How did this happen? - Was there a planned approach to spread? Within the organisation? Externally?
30. What level of knowledge do managers/clinical leaders/staff within other similar units have of the new processes?
31. If you had to ensure clinical handover was adopted in your organisation; you had to report on the success of it and whether it was working regularly, what would you do to institute such a system?
32. Where are the gaps with this tool and with handover more generally? What remains to be done?
33. How could the Commission make it easier or facilitate improved clinical handover practice?

34. What role do state, territories and private sector organisations play in supporting these activities? What advice do they need to inform future resource allocation to clinical handover?
35. What other activities are in place to support national effort in clinical handover?

Stakeholders

Stakeholders consulted during the evaluation are included in the tables below. Stakeholders included the Australian Commission on Safety and Quality in Health Care, Clinical Handover Pilot Sites, the Commission's Expert Advisory Group and various State and Territory health departments, health care settings and professional bodies.

Australian Commission on Safety and Quality in Health Care

Name	Position	Contact details Email
Ms Tamsin Kaneen	Project manager (former)	Tamsin.kaneen@health.gov.au
Ms Emma Fitzgerald	Project contact officer	Emma.fitzgerald@health.gov.au
Dr Suellen Allen	Project manager (from 12 October)	Suellen.allen@health.gov.au
Prof Chris Baggoley	Chief Executive Officer	

National Clinical Handover Initiative Pilot Program sites

Organisation	Name
South Australian Department of Health in collaboration with the University of Tasmania	Ms Christy Pirone
Albury-Wodonga Private Hospital (Ramsay Healthcare)	Ms Sally Squire
University of Queensland	Prof Lynn Robinson
Mater Health Services Brisbane Limited	Ms Sara Hatten-Masterson
GPpartners	Ms Helen Hoare
Griffith University Research Centre for Clinical Practice Innovation	Prof Wendy Chaboyer
Tasmania: Department of Health and Human Services	Assoc Prof Paul Turner
North East Valley Division of General Practice	Ms Clare Chiminello
Deakin University	Ms Bernice Redley
Hunter New England Health	Dr Rosemary Aldrich
West Australian Country Health Service	Ms Jill Porteous
St John of God Health Services	Ms Allison Campbell
University of Technology, Sydney	Prof Rick Iedema
South Australian Department of Health	Ms Christy Pirone

Expert advisory group






Organisations	Name	Title
Queensland Patient Safety and Quality Improvement Service. Note: advised on UQ project.	Dr John Wakefield, Chair	Senior Director
Victorian Aboriginal Health Service Note: lead on NEVDGP project.	Dr Mary Belfrage	Director
Research Centre for Clinical and Community Practice Innovation, Griffith University Note: lead for Griffith Uni project.	Prof Wendy Chaboyer	Director
Health Services Performance Improvement Branch, NSW Health Note: oversees NSW Health's large handover key principles project. Was not directly linked to a pilot project.	Mr James Dunne	A/Area Performance Manager, Project Director State-wide Redesign Program

Organisations	Name	Title
Clinical Safety and Quality Unit, Mater Health Services Brisbane. Note: lead on the Mater project.	Ms Sara Hatten-Masterson	Project Manager
Royal Hobart Hospital / University of Tasmania. Note: was the medical lead on RHH/UTAS project.	Dr Kwang Chien Yee	VMO
Safety and Quality Clinical Systems Unit, Department of Health, South Australia. Note: lead the TeamSTEPPS and SafeTECH projects.	Ms Christy Pirone	Principal Consultant
Hunter New England Area Health Service. Note: involved in HNEAHS project.	Ms Jenny Carter	Operations Manager, Patient Flow Unit
School of Nursing and Social Work, Faculty of Medicine, Dentistry and Health Sciences, University of Melbourne. Note: Wrote the handover chapter in the Commission's 2008 national report, Windows into Safety and Quality in Healthcare. Was not directly linked to a pilot project.	Prof Elizabeth Manias	Associate Head (Research)
Consumer representative. Note: was consumer representative on the TeamSTEPPS project.	Ms Stephanie Newell	Consumer representative
Australian Healthcare and Hospitals Association Note: Led an AHHA reference group on clinical handover that developed a position paper on handover. Was not directly linked to a pilot project.	Ms Annette Schmiede	Director
Office of Safety and Quality in Health Care.	Ms Lyn David	A/Director

State, Territory and other organisations

Organisation	Name
Victorian Quality Council	Mr Paul Ireland
New South Wales Health	Mr James Dunne
Queensland Health	Dr John Wakefield
South Australia Health	Ms Christy Pirone
Northern Territory Health	Dr Alan Rubin
Western Australia Health	Ms Lyn David
Tasmanian Department of Human Services	Ms Alice Birchall
Australian Capital Territory Health	Ms Elizabeth Tricket
Calvary Health Canberra	Ms Michelle Austin

Attachment B – State and territory policies and activities since 2005

Jurisdiction	Policy, framework, strategy	Guidelines, procedures	Programs / pilot projects	Health care settings	Clinical handover tools	Areas of policy focus
Victoria Victoria Department of Health and Victorian Quality Council (VQC)	<p>Clinical Handover was identified as a key priority in the first two terms of the VQC (2001-2008).</p> <p>In its third term (2008-12) the VQC retains a focus on improving clinical handover through its strategic priority of improving the patient journey.</p> <p>In 2009 Victoria released the Victorian Clinical Governance Policy Framework: Enhancing Clinical Care; and A Guidebook to support the policy.</p>	<p>In February 2006, a clinical handover information sheet outlining generic concepts was developed and circulated to Victorian health services.</p>	<p>In 2006-2007, the VQC funded the Royal Children's Hospital (RCH) Junior Medical Staff (JMS) Handover project through the Victorian Travelling Scholarship program.</p> <p>In 2007 a pilot project was conducted in four health services (3 metropolitan and 1 regional public hospital) to trial the tools for shift-to-shift medical handover.</p> <p>In 2010 the VQC piloted a paper-based standardised inter-facility patient transfer form in four metropolitan and regional health services.</p> <p>In 2009 the Department commissioned a report into Inter Hospital Transfers with a view to informing work to strengthen clinical handover processes in those situations.</p> <p>In 2010, the VQC is piloting TeamSTEPPS™ in 3 metropolitan and 2 rural public hospitals.</p>	<p>Public hospitals.</p> <p>Metropolitan and regional.</p> <p>Medical shift-to-shift handover.</p>	<p>A set of standardised clinical handover tools was developed based on the outcome of a clinical handover workshop held on 29 November 2006.</p> <p>The following tools were piloted in four Victorian public health services.</p> <p>For more information:</p> <p>http://www.health.gov.vic.au/qualitycouncil/downloads</p> <p> Suggested CH organisational readiness checklist (29kb, pdf).</p> <p> Suggested CH template (28kb, pdf)</p> <p> Suggested content for CH policy (33kb, pdf)</p> <p> Suggested content for CH protocol or guidelines (33kb, pdf).</p> <p> Suggested Key Performance Indicators (30kb, pdf)</p>	<p>Shift to shift, acute to community and inter-hospital transfer were identified in the 2006 survey as the highest priority areas.</p> <p>Three main areas were identified in the survey for future:</p> <ul style="list-style-type: none"> • training in clinical handover and communication skills • standardisation of clinical handover format and supporting systems such as guidelines and • key performance indicators

Jurisdiction	Policy, framework, strategy	Guidelines, procedures	Programs / pilot projects	Health care settings	Clinical handover tools	Areas of policy focus
Performance, Acute Health and Rural Health Branch	Effective discharge from acute public hospitals in Victoria		<p>Under the four year (2008-12) Redesigning Hospital Care Program (RHCP), several hospitals have applied process redesign methodologies and implemented strategies to improve the discharge processes.</p> <p>In 2010, the department established the Acute Medical Inpatient Advisory Committee to provide expert advice to assist the Government's decision making in relation to policies and programs for acute medical inpatient services in Victoria's acute public hospitals. The committee has prioritised effective discharge as a focus for improvement.</p> <p>The strategy will build on</p>	<p>Acute hospital</p> <p>Metropolitan and regional</p> <p>Transfer of care from acute public hospitals</p>		<p>Policy focus on three elements of effective discharge:</p> <ul style="list-style-type: none"> • use of indicators for effective health service performance • variation in discharge practices • service models.
New South Wales Health	<p>NSW Health <i>Caring Together: The Health Action Plan for NSW</i></p> <p>Two recommendations of the Garling Inquiry relating to clinical handover:</p> <p>R 55 (ward rounds with specialist and allied health staff); and</p> <p>R 56 - handover: at bedside with mandatory information; time for in roster; written or</p>	<p>NSW Health Guideline (11 September 2008): Term Changeover - Ensuring an effective handover of patient care.</p> <p>Improving Junior Medical Officer (JMO) clinical handover at all shift changes Clinician edition.</p>	<p>Safe Clinical Handover program launched 2009.</p> <p>Appendix D of the NSW 'Implementation Toolkit' for Clinical Handover refers to a number of clinical handover models:</p> <ul style="list-style-type: none"> • ISBAR: framework for communication⁶. • VITAL©: Nursing shift to shift and ward transfer handover. • BEDSIDE PAEDIATRIC UNIT NURSING HANDOVER. • PVITAL: Bedside shift to shift handover, utilising the clinical file. 	<p>NSW Area Health Services</p> <p>NSW public hospitals</p>	<p>http://www.archi.net.au/e-library/safety/clinical/nsw-handover</p> <p>'Implementation Toolkit' for Clinical Handover: a 'how-to' booklet aimed at those reviewing of their local clinical handover processes in line with the standard key principles for clinical handover.</p> <p>The toolkit contains further background regarding the case for change, expanded points for the standard key principles,</p>	<p>Areas for future focus include:</p> <ul style="list-style-type: none"> • Junior Medical Officers (JMO) • General Practice • Critical Care to Ward • Deteriorating patient

⁶ Based on the ISBAR Revisited project in the Hunter New England Area Health Service funded under the Commission's pilot program

Jurisdiction	Policy, framework, strategy	Guidelines, procedures	Programs / pilot projects	Health care settings	Clinical handover tools	Areas of policy focus
	e-copy). New South Wales Health (NSW Health) Policy Directive (28 September 2009: Clinical Handover - Standard Key Principles.		<ul style="list-style-type: none"> SBAR: Communication framework for nursing on all wards. THE PATIENT SAFETY HANDOVER CHECKLIST (PSHC) <p>ACT SHARP: Communication for escalating management of a deteriorating patient.</p>		<p>summarised process redesign methodology, examples of existing clinical handover models, supporting templates and many useful links.</p> <p>Note: a number of mnemonics and checklists are suggested in the toolkit.</p>	
NSW Centre for Clinical Excellence (CCE)	The CEC forms a major component of the NSW Patient Safety and Clinical Quality Program that was designed to provide a comprehensive quality improvement and patient safety program across NSW.		<p>Communicating for Clinical Care project was trialled between October and December 2006.</p> <p>The trial focussed on multidisciplinary groups of staff, working in a patient care team, facilitated by ward/department level managers. The aim of the Communicating for Clinical Care project was to produce a range of teaching tools for use at the clinical unit and ward level, to teach and embed the knowledge, skills and behaviours</p> <p>http://www.cec.health.nsw.gov.au/moreinfo/betweentheflags.html</p> <p>The NSW Health program—<i>"Between the Flags"</i> resulted in significant resources regarding identification, management and communication of the deteriorating patient.</p> <p>Processes for clinical handover align with this work.</p>	NSW public hospitals		CEC Clinical Incident Management Report (2009) identified a number of issues associated with transfer of care.

Jurisdiction	Policy, framework, strategy	Guidelines, procedures	Programs / pilot projects	Health care settings	Clinical handover tools	Areas of policy focus
Queensland Health Patient Safety and Quality Improvement Service	2010-2013 Clinical Handover Strategy. (Clinical Handover was highlighted in <i>Patient Safety: From Learning To Action</i> First Queensland Health Report on Clinical Incidents And Sentinel Events (2007). Ineffective communication (including ineffective clinical handover) was identified as a root cause in over 60% of reported sentinel events.)	The strategy does not mandate a particular tool or mnemonic.	In 2006 the Queensland Health Patient Safety Centre funded the National Clinical Handover Initiative Pilot Program for improving the effectiveness of handover through implementing evidence-based interventions at individual, team and system levels.	Seven metropolitan and regional public hospital sites in QLD.	Several of the pilot sites involved in the program provided valuable data and learnings that informed the development of tools and strategies to reduce gaps in the clinical handover practices at a state-wide level and improve the safety of care delivery.	The six themes of the strategy are: <ul style="list-style-type: none"> • implementing systems to improve clinical handover • building a culture that supports effective clinical handover • building capacity among staff • delivering support to districts for sustainable change • measuring and reporting on progress using sound governance processes • keeping a patient centred focus.
South Australia <ul style="list-style-type: none"> • SA Health – Safety and Quality Unit • Clinical Handover Advisory Group 	The South Australian Clinical Handover Action Plan. The South Australia Clinical Handover Policy Directive: identifies policy commitments to effective and structured clinical handover, clinical standards that should be met in the implementation of the policy, the responsibilities of all	The SA Clinical Handover Action Plan identifies actions against four elements of the Australian Commission on Safety and Quality in Health Care, Draft National Safety and Quality Healthcare Standards, Clinical Handover Nov 2009. The policy directive identifies national guidelines, such as the OSSIE Guide, and reports prepared for	The SA Draft Policy Directive identifies reports prepared for projects funded under the Commission's National Clinical Handover Initiative Pilot Program: TeamSTEPPS and SafeTECH	Public hospitals	Team STEPPS ^R is being implemented state wide	The SA Action Plan states: "Effective communication is the function of: a clear structured process; an enabling environment; respectful behaviour/ culture; clear roles, accountability, expectations; a planned approach to communication and handover; effective communication mediums; health literacy and knowledge and a

Jurisdiction	Policy, framework, strategy	Guidelines, procedures	Programs / pilot projects	Health care settings	Clinical handover tools	Areas of policy focus
	SA Health employees, relevant legislation, and other documents that support the policy.	projects funded under the Commission's National Clinical Handover Initiative Pilot Program. A practical operational guide for the implementation of electronic tools for clinical handover is also planned.				multi-faceted continuous process.
Western Australia, Health	WA Clinical Handover Network was established by the WA Office of Safety and Quality in Healthcare in July 2010 to improve clinical handover (CH) processes in WA hospitals, and align these processes with national standards. Planning a state wide clinical handover policy in 2011.	Site-specific protocols and procedures.	iSoBAR for inter-hospital transfer was trialled as part of the WA Country Health Service/Royal Perth Hospital project funded under the Commission's pilot program. Site-specific clinical practice improvement programs are being conducted across the state. Royal Perth Hospital, in association with Curtin University, has conducted a clinical handover research project as part of a national project led by the University of Technology Sydney.	WA Public hospitals: metropolitan and country.	iSoBAR	Key principles of all types of handover Deteriorating patient
Tasmania, Health	Planning state wide policy	-	-	Public hospitals: metropolitan and country	-	.
Australian Capital Territory, Health	ACT Health Safety and Quality Framework	Patient Identification Policy and SOPs Admission and Discharge Policies and SOPs Transfer Policies and SOPs	2010 Effective clinical handover communication: Improving patient safety, experiences and outcomes 2010 Calvary Public Hospital pilot project ACT Health Clinical Handover Working Group	Acute and community settings	ISBAR ISOBAR WHO Surgical Safety Checklist	All health professionals

Jurisdiction	Policy, framework, strategy	Guidelines, procedures	Programs / pilot projects	Health care settings	Clinical handover tools	Areas of policy focus
			Early Recognition of the Deteriorating Patient Program			
Northern Territory, Health	Planning a territory wide policy	-	-	-	-	-

Professional Colleges – policies guidelines and procedures

Organisation	Policies, guidelines, procedures	Other relevant resources
Australian and New Zealand College of Anaesthetists (ANSCOA)	<ul style="list-style-type: none"> PS4 Recommendations for the Post-Anaesthesia Recovery Room PS10 Guidelines on the Handover of Responsibility During an Anaesthetic PS20 Recommendations on Responsibilities of the Anaesthetist in the Post-Anaesthesia Period PS39 Minimum Standards for Intra-hospital Transport of Critically Ill Patients PS52 Minimum Standards for Transport of Critically Ill Patients 	
Australian College of Emergency Medicine	<ul style="list-style-type: none"> PS39 Minimum Standards for Intra-hospital Transport of Critically Ill Patients PS52 Minimum Standards for Transport of Critically Ill Patients 	
Royal College of Nursing	The RCN does not have policies or guidelines on clinical handover	3LP Life Long learning program, has articles on the subject of clinical handover
Royal Australasian College of Physicians	The RACP does not have a policy or guideline on clinical handover	
Royal Australasian College of General Practitioners	<p>The RACGP recently released the 4th edition of the RACGP Standards for general practices, which includes a new criterion on clinical handover.</p> <p>Criterion 1.5.2 Clinical handover states: <i>Our practice has an effective clinical handover system that ensures safe and continuing healthcare delivery for patients.</i></p>	<p>The RACGP has been conducting familiarisation sessions on the new edition of the Standards to general practice staff and surveyors. Discussion on how to implement a safe handover system is one of the topics of the sessions.</p> <p>The RACGP has specific training requirements in the RACGP Curriculum related to handover skills and continuity of care. Handover skills are specifically mentioned in the acute care statement, and the patient safety statement, but much of clinical handover is included within the context of continuity of patient care, both within the general practice setting, and when passing and sharing patient care with other health care providers. In this context continuity of care - which includes patient clinical handover - is seen as a basic skill in the curriculum.</p>
The Royal College of Pathologists	<p>RCPA Fellows predominantly do not work directly with patients, except those directly qualified with the Royal Australian College of Physicians).</p> <p>RCPA does not have a direct policy for handover but there are general references made in their curricula concerning handover.</p> <p>Guideline 8/2004 The pathology Request-Test-Report-Cycle for requesters and Pathology Providers covers the responsibilities of medical practitioners, both treating practitioner and pathologists.</p>	

Organisation	Policies, guidelines, procedures	Other relevant resources
The Royal Australian College of Obstetricians and Gynaecologists	The RANZCOG does not have guidelines on clinical handover	RANZCOG Integrated Training Program. Standard 6 Provision of Core Levels of Experience relate to handover RANZCOG Specialist Obstetrician Locum Scheme includes an agreement that they will participate in a comprehensive handover at the commencement and end of the locum period.
The Australian Nursing Federation	ANF Policy on admission and discharge to hospital: All health services should have in place admission and discharge protocols as these are fundamental to ensuring safe, adequate and continuing care across all health delivery contexts and to ensuring the effective use of resources	
Australian College of Midwives	Guideline about how and when midwives should consult and refer, not specifically about handover per se. but they do provide guidance about how and when midwives should consult and refer: http://www.midwives.org.au/scripts/cgiip.exe/WService=MIDW/ccms.r?PagelId=10037 http://midwives.rentsoft.biz/lib/pdf/Consultation%20and%20Referral%20Guidelines%202010.pdf	

Attachment C: Detailed summary of key features of the Clinical Handover Pilot Projects



Project category	Project title	Health care settings	Type clinical handover	Handover tools / mnemonic
Category 1	Bedside Handover and Whiteboard Communication	Public hospital. Metropolitan Ipswich Hospital (QLD), Peel Health Campus (WA), Gold Coast Hospital (QLD)	Shift-to shift Bedside handover, whiteboard patient flow	Bedside handover - Standard Operating Protocol (PDF 194 KB) Whiteboard communication - Standard Operating Protocol (PDF 202 KB)
		Griffith University Research Centre for Clinical Practice Innovation, 2008		
	Implementing written and verbal handover to ensure optimal transfer of patients from country to metropolitan health services	Public hospitals, country and metropolitan WA Country Health Service (WACHS), six of seven regions and Royal Perth Hospital (WA)	Inter-hospital	Inter-Hospital Patient Transfer Form (PDF 53 KB) iSoBAR Promotional Materials (PDF 53 KB) iSoBAR e-learning educational toolkit (ZIP 467 KB) Help file on how to install and run the electronic toolkit (TXT 4 KB)
	Inter-professional Communication and Team Climate in Complex Clinical Handover Situations (in the Post Anaesthesia Care Unit): Issues for Safety in the Private Sector	Victorian Private hospitals, metropolitan. Deakin University in collaboration with Epworth, Cabrini and Alfred Hospital (control)	Intra-hospital, post anaesthesia to ward	Handover ID card (PDF 2540 KB) A3 Booklet on Using tools to evaluate the quality of interprofessional clinical handover (PDF 713 KB)
	Revolving doors - Effective communication in the handover of mental health patients to community health practitioners	Private hospitals St John of God Health Services Ltd (NSW Services)	Private mental health patients discharged from inpatient hospital services () to community practitioners	Hospital Discharge Summary Booklet (PDF 195 KB) Roles and responsibilities in completing the clinical handover (discharge) process (PDF 93 KB) Algorithm for Planned Patient Discharge Process (PDF 82 KB) Community Practitioner Referral Form (PDF 169 KB)
	SHAREing Maternity Care – Clinical Handover	Two private hospitals, metropolitan.	Midwife to the Visiting Medical Officer (VMO) when a change in	SHARED Graphic (PDF 272 KB) SHARED Poster (PDF 257 KB)



	between Visiting Medical Officers and Midwives	Mater Health Services Brisbane Limited (QLD)	the woman's condition is diagnosed and, referral from the VMO to the recovery nurse/midwife post-Caesarean section	SHARED Swing Tag (PDF 163 KB) SHARED Sticker (PDF 68 KB) SHARED Resource Guide (PDF 636 KB) SHARED phone handover for communicating a critical situation, or change in patient condition (PDF 71 KB) SHARED Carepath Inserts Post C-Section Recovery Room Handover (PDF 53 KB) SHARED Carepath Inserts Post Operative Recovery Room Handover (PDF 53 KB) SHARED Carepath Inserts Well Term Newborn (PDF 42 KB)
	Transfer to Hospital Envelope	Residential Aged Care Homes (RAH) and Hospitals (emergency departments) Victoria	Inter-facility	Aged Care Transfer-to-Hospital Envelope with Template (PDF 268 KB) Procedures for Transfer-to-Hospital Envelope (PDF 56 KB) Minimum Information Set Transfer Form (PDF 53 KB)
	ISBAR revisited: Identifying and Solving BARriers to Effective Handover in Inter-hospital Transfer	The Maitland Hospital (sending hospital) and the John Hunter Hospital / Royal Newcastle Centre campus (receiving hospitals Hunter New England Area Health Service, NSW)	Inter-hospital Transfer	ISBAR Poster (PDF 136 KB) ISBAR Notepad (PDF 18 KB) ISBAR Promptcard template (PDF 46 KB) ISBAR Project Toolkit (PDF 222 KB)
	The PACT Program - Communication Training and Team Training to Support Handover	Albury Wodonga Private Hospital, NSW	Shift-to-shift (nursing) and between nurses and Visiting Medical Officers	SBAR communication tool (PDF 39 KB) Using the SBAR tool (PDF 13 KB) Handover prompt card (PDF 26 KB) PACT poster (PDF 2255 KB)
Category 2	SafeTECH – Safe tools for electronic clinical handover	Public hospitals, metropolitan. Obstetrics and Gynaecology and General Medicine. South Australia SA Health University of South Australia	Various – including shift-to-shift, inter-professional	Safe use of electronic handover tools (PDF 1828 KB)
Category 3	TeamSTEPPS®	Metropolitan hospitals: an emergency department, inpatient mental health facility, general medical ward, paediatric anaesthesia short-stay ward. Rural: general medical ward, South Australia	Various including discharge from hospital to community, inter-hospital, inter-departmental, shift-to-shift	http://teamstepps.ahrq.gov/index.htm



		SA Health		
	Development of e-Learning Strategy for Safe Clinical Handover	Not specific, aimed at clinical leaders and/or managers with influence over the design and implementation of clinical handover solutions.		Leading Clinical Handover online education program
		University of Queensland Centre for Health Innovation and Solutions, Queensland Health Patient Safety Centre and Med-E-Serv Pty Ltd		
	The Development of SOPs and Educational Resources for Shift-to-Shift, Medical and Nursing Handover	General Medicine, General Surgery and Emergency Medicine at the Royal Hobart Hospital, Tasmania	Intra-hospital, nursing and medical handover	Stakeholder Engagement Protocol (PDF 195 KB) Minimum Data Set (PDF 58 KB) Standard Operating Protocol (PDF 472 KB) Training Materials (Nursing - General Medicine) (PDF 1131 KB)
Category 4	The Use of Reflective Video to Improve Handover	Public hospitals, metropolitan Four hospitals each focusing on a different department: Emergency, Adult Intensive Care, Spinal Injury Rehabilitation Service and Paediatric Intensive Care. New South Wales, & Victoria	Medical ward rounds, nursing handovers, inter-professional communication, interdepartmental communication, handovers among junior staff members, end-of-week	HELiCS Booklet (PDF 5102 KB) Case Study 1: Emergency Department (PDF 1470 KB) Case Study 2: Intensive Care Unit (PDF 2007 KB) Case Study 3: Spinal Rehabilitation Unit (PDF 1853 KB) Ethical Governance (PDF 921 KB)
	Improving Residential Aged Care Facility to Hospital Clinical Handover	Residential Aged Care Facilities (RACFs) and Hospitals (emergency departments), Brisbane Queensland	Inter-facility transfer	Admission Audit Tool (PDF 44 KB) Discharge Audit Tool (PDF 35 KB) Guidelines for Audit Tools (PDF 55 KB) Clinical Audit Toolkit (PDF 698 KB)


Attachment D: CLINICAL HANDOVER IMPLEMENTATION CHECKLIST


Ten Steps to implementation of an improved clinical handover approach



Implementation Steps	Elements	Clinical handover – specific examples
 <p>1. Establish a compelling case for change</p>	<ul style="list-style-type: none"> • Develop a brief, initial statement of the problem that will capture people's interest • Provide the supporting information or evidence that will be most persuasive for each of the specific groups who need to support the project. Different brief summaries of the case for change may need to be provided for each target group • Find evidence that change can bring improvement • Specify why it is important to do something about this now – identify the tension/urgency for change 	<p>Information to 'make the case' may include:</p> <ul style="list-style-type: none"> • Specific cases where poor handover has resulted in patient harm • Problems with staff relationships or confidence resulting from poor handover practices • Examples of duplication, inefficiency or costs for the organisation resulting from poor handover practices • Data that demonstrate the contribution of poor handover to adverse events or increased costs • Information from the literature regarding effects of improved handover and examples from similar organisations where handover works effectively • Need to comply with organisational or jurisdictional priorities • Need for organisations to meet new Safety & Quality standards • Availability of support or expertise to support change
 <p>2. Enlist influential leaders and champions</p>	<ul style="list-style-type: none"> • Include senior clinicians who are opinion leaders with the groups whose behaviour needs to change • Ensure support of senior managers who can assist in gaining the necessary resources to make the project happen • Fully involve members of the group whose practice will need to change • Ensure leaders & champions will commit their time, effort & support to making change happen • Involve people who will work constructively with each other & the project team 	<ul style="list-style-type: none"> • Work with senior managers to make clinical handover an organisational priority • Canvass different professional groups for their views on current handover practice to identify those interested in supporting change • Ensure that senior opinion leaders from each key professional group involved with handover are represented. Work with them to develop information and strategies that are tailored to meet the styles and needs of each group. • Aim to include reporting on progress and outcomes of the clinical handover improvement project in the agenda of important committees and meetings • Enlist the support of senior managers to get the resources to make the clinical handover project happen and help overcome organisational obstacles • Publicise the proposed changes to handover throughout the organisation in ways that show senior people are strongly committed • Identify the networks inside and outside the organisation that could be used to promote the project and ensure some leaders are well connected into these networks

Implementation Steps	Elements	Clinical handover – specific examples
 <p>3. Determine governance arrangements</p>	<ul style="list-style-type: none"> • Ensure governance arrangements for the project are consistent with those within the organisation where the project is taking place and at a level where the project will have a strong organisational profile • Establish a reporting & accountability framework that is clear to everyone involved • Define the roles of each member of the project team and identify clear levels and types of delegation • Gain agreement on the way in which any conflict or disagreement will be managed • Identify how patient/consumer input will be incorporated into the project • If multiple organisations are collaborating, ensure the arrangements applying to each organisation are clear 	<ul style="list-style-type: none"> • Align the clinical handover project with the safety and quality framework of the organisation and with other similar projects • Assign clinical handover to the relevant executive sponsor and organisational safety and quality committee • Link the project to the organisational quality plan • Link the project to a relevant accreditation standard • Convene a project oversight group involving key stakeholders and chaired by an influential clinician • Clarify and assign project roles, including the roles of consumers and carers, depending on the type of handover that is being addressed • Determine the communication channels to be set up between the project group, the responsible committee and the professional and consumer groups involved
 <p>4. Establish goals</p>	<ul style="list-style-type: none"> • Specify the desired changes and outcomes from the project • Identify the group or groups of people whose behaviour will need to change (the target group) • Specify the behaviour change that is required • Identify the measures that will be used • Set an initial target that is likely to be achievable within the resources available • Develop a project timeline for goal achievement 	<ul style="list-style-type: none"> • Agree the definition of effective clinical handover and how this can best be measured • Link desired changes to organisational values and strategic goals • Work with stakeholders to develop a rich picture of what improved handover will look like and the desired flow on effects in terms of care processes and outcomes • Identify how these effects will be measured using quantitative and qualitative data. These include: <ul style="list-style-type: none"> ○ process measures: the extent to which the project effects changes in the way handover is conducted, what is discussed and how responsibility and information are transferred; ○ outcome measures of the impact on patient care in the areas of safety, appropriateness, continuity and person centeredness of care (see Step 10). • Set realistic targets for: <ul style="list-style-type: none"> ○ The implementation and sustainability of a small scale pilot ○ Rollout of the new handover approach across all relevant areas of the

Implementation Steps	Elements	Clinical handover – specific examples
		organisation
 5. Analyse current issues	<ul style="list-style-type: none"> Describe the current situation and the problem with current tools & practices Identify the stakeholders Map the processes involved Identify the barriers and drivers to change. 	<ul style="list-style-type: none"> Establish current baseline performance in terms of the clinical handover outcomes wanted Describe current handover practice in detail – how, when and where does it take place, who is involved, who provides leadership, how long does it take, what information is exchanged, what documentation is there? Ensure all stakeholders view the proposed change to clinical handover as useful & necessary – if not, revisit the compelling case for change Identify barriers and drivers to change with key individuals, brainstorming with a small group, running a focus group, surveying staff, observing clinical practice in action. Barriers to changing handover practice may include: <ul style="list-style-type: none"> clinician factors (e.g. awareness, attitudes, motivation, knowledge, skills) patient factors team or care processes (e.g. clarity of roles & responsibilities, workload, team interactions) organisational or system factors (e.g. policies, staffing, resources, culture, physical environment) Drivers to change will include: <ul style="list-style-type: none"> Involving a clinician with a pre-existing interest in or experience with improving handover Emphasising the fit for purpose nature of the handover approach Linking the desired improvement to the organisational values Ensure the differing perspectives of all people or organisations involved in the handover are identified Find ways to ensure that the proposed change to handover practice is fit for purpose, practical and viewed as an improvement by staff
 6. Develop the plan for change	<ul style="list-style-type: none"> Further define specific goals and set targets for change Select appropriate process & tools for the environment, the information to be communicated and the stakeholders involved Identify how measurement of change will happen Develop strategies to address barriers & enhance drivers for change, ensure strategies are tailored to the identified barriers Identify expertise and 	<ul style="list-style-type: none"> Select the handover tool and approach based on best fit for the environment, the purpose of improving handover and what specifically is to be achieved, keeping it as simple as possible: Engage opinion leaders in the choice of tool Scan external information (such as the ACSQHC website, jurisdictional websites, professional colleges and associations, other similar organisations) on relevant handover tools and approaches (be aware that some jurisdictions and organisations have mandated tools and approaches) Decide if the handover situation and desired results support the use of a generic tool such as ISBAR, or an adaptation of this, or a home grown tool designed for a specific handover situation Convene a persistent and committed leadership and implementation team with a dedicated

Implementation Steps	Elements	Clinical handover – specific examples
	<p>project team required</p> <ul style="list-style-type: none"> • Allocate budget and resources • Plan <i>process</i> change: <ul style="list-style-type: none"> ○ Develop concrete short term plan for the pilot ○ Identify location & length of pilot ○ Identify critical points, timelines and deadlines ○ Plan for sustainability and spread • Plan <i>people</i> change: <ul style="list-style-type: none"> ○ Identify specific ways that opinion leaders can practically contribute to and promote the project ○ Ensure affected staff are fully involved in pilot planning and implementation and evaluation ○ Training and information ○ Develop marketing strategy 	<p>project leader</p> <ul style="list-style-type: none"> • Develop a budget considering rostering changes, training, handover tools and materials, marketing materials • Enhance drivers and reduce barriers by: <ul style="list-style-type: none"> ○ Emphasising the ‘fit for purpose’ and practical nature of the new handover tools and approach ○ Making handover an organisational priority ○ Ensuring influential leaders are involved, including a well networked, credible, respected clinician for each professional group ○ Appointing a persistent and well respected project manager to drive the change day to day ○ Substantial “bottom-up” involvement of clinicians and administrative staff and collaborative engagement with local organizations and national groups where relevant ○ Planning for quick wins – a tangible demonstration of the advantage of change in the short term such as time saving, streamlined process, better information exchange • Plan for sustainability and spread: <ul style="list-style-type: none"> ○ Identify the links to organisational structures and processes and other safety & quality priorities ○ Develop easy to identify, use and remember tools, reminders and training materials ○ Include potential for sustainability and spread in PDSA cycle evaluation ○ Select a handover approach that will be easily adaptable to other parts of the organisation
 <p>7. Develop the change package</p>	<ul style="list-style-type: none"> • Develop a package, using a mix of media that informs and supports the implementation of the pilot. The package should include specific, tailored examples and language to target different stakeholders. 	<ul style="list-style-type: none"> • The change package should include information that can be used for meetings, presentations, marketing and training, and include: <ul style="list-style-type: none"> ○ Data and anecdotes to make the case for change ○ Benefits of change ○ Strength of evidence ○ Examples of where else has this worked ○ Specific examples for different professional groups ○ The handover tools and business rules of how they are to be used – a description of the new process, roles and responsibilities of handover ○ A measurement tool ○ Marketing materials. • Use the change package to spread the word regarding the opportunity for improvement and benefits of changing the handover system via meetings, professional networks, newsletters

Implementation Steps	Elements	Clinical handover – specific examples
		<p>and presentations – ensure as many staff as possible have the opportunity to hear about it through their local communication channels</p> <ul style="list-style-type: none"> • Keep it simple and use both data and anecdotes illustrating where poor handover has adversely affected patients and staff • Include examples from other organisations and the literature to illustrate where improvements in handover have achieved: <ul style="list-style-type: none"> ○ Improved patient care as a result of shared/better understanding between staff, patients and carers ○ Avoidance and reduction in adverse events related to poor handover ○ More appropriate and integrated care ○ Improved staff relations as a result of more effective and efficient communication ○ Improved staff and patient confidence due to a clear understanding of roles and expectations of care implementation and responsibility • Use mnemonics, colourful reminders and posters and simple prompts to support marketing and use of the new approach
 8. Pilot the change	<ul style="list-style-type: none"> • Pilot the change in one part of the organisation using short Plan Do Study Act cycles • Establish exactly who needs to do what to make the required change, and ensure that they are equipped to do so • Organise the data collection and observation • Implement the new approach with regular evaluation and review to tackle and resolve barriers as they arise, • Make best use of the drivers for change and identify and celebrate the quick wins 	<ul style="list-style-type: none"> • Nominate leaders and observers for each handover • Tailor training for specific professional and craft groups • Ensure those involved are clear and equipped (rostering, physical space, tools and training) to fulfil their new role, and have had the opportunity to develop how the new approach will work 'on the ground' • Ensure there is a handover change champion present at each handover to lead, remind and promote the new way • Remove aspects of the 'old' way that are not included in the new approach (such as taping, telephone handover, documentation duplication) • Observe as many handovers as possible to evaluate the extent to which handover is occurring as per the business rules • Collect qualitative and quantitative post data • Review progress regularly, seek feedback from stakeholders and remove barriers as they arise • Allow time for attitude change to occur • Collect qualitative and quantitative 'pre' data on the current situation – the process and impact of handover, including: <ul style="list-style-type: none"> ○ degree to which the current process follows the desired handover principles and practice ○ adverse events and near misses relating to poor handover (may not all be reflective of changes due to problems with attribution) ○ improvements in appropriateness,

Implementation Steps	Elements	Clinical handover – specific examples
 9. Sustain & spread	<ul style="list-style-type: none"> Implement the plan for sustaining the new approach at the pilot site and spreading to other parts of the organisation in a phased approach over time. 	<p>continuity and person centeredness of care (see step10 for further detail)</p> <ul style="list-style-type: none"> Sustain the changes at the pilot site: <ul style="list-style-type: none"> Embed in organisational structures, routines and job descriptions Highlight and reinforce the gains in communication effectiveness and the flow on effects for patients Incorporate user feedback to remove the bottlenecks and streamline process Link the handover principles/process to other safety initiatives such as recognising the deteriorating patient Spread the new system: <ul style="list-style-type: none"> Develop organisational policy or procedure linked to policy on handover principles and approach Develop a related competency and embed in staff job descriptions and appraisals Demonstrate the adaptability of the approach to other areas of the organisation Market good news stories on ease of use, practicality and benefits to patients and staff Tap into the change leaders' and organisational networks and links Communicate the pilot outcomes through formal and informal channels: <ul style="list-style-type: none"> standard items on organisation-wide and profession specific meeting agendas publications presentations newsletters awards
 10. Measure, evaluate and improve	<ul style="list-style-type: none"> Regularly evaluate the extent to which handover is conducted as per the policy, principles and business rules and achieves specified goals. Regularly report the evaluation data to stakeholders and key committees. Develop an ongoing system to remove barriers, enhance drivers and improve the handover process and tools as required. 	<ul style="list-style-type: none"> Improved handover can positively impact the safety, appropriateness, continuity and person centeredness of patient care. Examples of areas for measurement across these areas involving both qualitative and quantitative data: <ul style="list-style-type: none"> i) Measures of use of appropriate approach, organisational support, adherence to and satisfaction with changed handover processes: <ul style="list-style-type: none"> Staff understanding and acceptance of handover and communication as a key safety tool Allocated leadership for clinical handover is enacted as per the policy and governance intent Compliance with handover tools, dataset and business rules/principles ii) Measures to ascertain the extent to which improved handover has impacted on care

Implementation Steps	Elements	Clinical handover – specific examples
		<p>processes and created required preconditions for quality care:</p> <ul style="list-style-type: none"> • Patient-specific risks are identified and monitored • Care is carried out as planned for each patient • Duplication and redundancy in investigations, care and treatment are avoided • Shared understanding between treating health professionals, the patient and family regarding the course of care, discharge date and post discharge plans • Relevant staff have clarity of responsibility for a patient at any point in time throughout the patient journey • Improved staff confidence <p>iii) Measures of impact on patient outcome</p> <ul style="list-style-type: none"> • Reduction in errors and adverse events caused by miscommunication, misunderstanding and confusion regarding responsibility for the patient • Patients receiving the recommended treatment in the timeframes as recommended at handover • No surprises for staff, patient or families during the course of care as a result of poor communication and shared understanding • Avoidance of extended length of stay due to problems with coordination and lack of shared understanding • Patient complaints and feedback regarding poor care and communication

The checklist contents are derived from the Clinical Handover Pilot Evaluation and the following references:

- Carey M, Buchan H, Sanson-Fisher R. *The cycle of change: implementing best evidence clinical practice*. International Journal for Quality in Health Care 2008; pp. 1–7.
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Attachment E: Pilot site measures

Project category	Project title	Health care settings	Reported process or outcome measures
Category 1	Bedside Handover and Whiteboard Communication	Public hospital, metropolitan	<p>Bedside Handover Improvement Strategies:</p> <p>Outcome measures reported were:</p> <ul style="list-style-type: none"> improving accuracy and service delivery; promoting patient-centred care proportion of medication errors, falls and pressure ulcers that resulted in harm as reported in clinical incident report patient's perceptions of the benefits and limitations of bedside handover <p>White boards: one tool to improve patient flow:</p> <p>Outcome measures reported were:</p> <ul style="list-style-type: none"> perceived outcomes of the use of whiteboards relating to timely referrals, improved patient flow, timely and better discharge planning
	Implementing written and verbal handover to ensure optimal transfer of patients from country to metropolitan health services	Public hospitals, country and metropolitan	The number of times the minimum dataset was used on transfer from rural hospitals to the Royal Perth Hospital.
	Inter-professional Communication and Team Climate in Complex Clinical Handover Situations (in the Post Anaesthesia Care Unit): Issues for Safety in the Private Sector	Private hospitals, metropolitan	<ul style="list-style-type: none"> Adverse incident data: incidents attributed to handover and detected at handover. Team climate and safety attitudes in PACU.
	CHOCYS: Effective Communication in the Handover of Mental Health Patients to Community Health Practitioners, St John of God Health Care	Private hospital	<ul style="list-style-type: none"> Discharge date greater than 48/24 prior discharge Discharge summaries faxed in less than 48/24 post discharge Patient phone f/u within 7/7 Psychiatrists discharge summary sent w/in 14/7 GPs and patients overall satisfaction with clinical handover.
	SHAREing Maternity Care – Clinical Handover between Visiting Medical Officers and Midwives	Private hospital, metropolitan	<ul style="list-style-type: none"> Adequate' MR documentation (legibility, time and signature) Post implementation staff satisfaction Patient satisfaction Incidents related to handover .

Project category	Project title	Health care settings	Reported process or outcome measures
	Transfer to Hospital Envelope	Residential Aged Care to hospital	<p>Main outcome measures were use of the Envelope when Aged Care Home residents were transferred to hospital emergency departments and staff perceptions of:</p> <ul style="list-style-type: none"> • use, usefulness and ease of use of the Envelope • the impact of using the Envelope on clinical handover • the potential for ongoing use and sustainability • the need for clinical handover
	ISBAR revisited: Identifying and Solving BARRiers to Effective Handover in Inter-hospital Transfer	Public hospital, metropolitan	<ul style="list-style-type: none"> • self-assessed clinician confidence and skill in clinical handover pre and post ISBAR training session covering measures of confidence, skills, systems approach, ease of use, surety mean scores for approximately 260 clinicians surveyed were statistically significant for all variables • identified barriers to effective clinical handover suggested by ISBAR training participants • perceptions of quality of clinical handover at baseline and during the implementation phase (sending and receiving medical officers; non-medical officers) • patients and carers experience of communication concerning their inter-hospital transfer • PFU staff assessment of elements of communication concerning inter-hospital transfer • File audit reports on notation and inclusion of information on 40 patients' records to show changes in certain types of information during the implementation phase. • Adverse events - incidents reported and type of incident reported based on an analysis of the IIMS data for the TMH and BDH.
	The PACT Program - Communication Training and Team Training to Support Handover	Private regional hospital	Staff perception re improvements to handover process and outcomes.
Category 2	SafeTECH – Safe tools for electronic clinical handover	Public hospitals, metropolitan	<p>Suggestions for baseline evaluation:</p> <ul style="list-style-type: none"> • safety culture surveys • patient complaints and/or satisfaction • teamwork assessment questionnaires • average time of handover • number of times staff are called to clarify the plan of care • audit of documentation of the management plan in the medical record <p>Suggestion for outcome measures:</p> <ul style="list-style-type: none"> • clinical incidents reported as a consequence of handover • patient feedback • staff feedback • length of stay • number of delays in treatment/investigations as a consequence not being handed over

Project category	Project title	Health care settings	Reported process or outcome measures
Category 3	TeamSTEPPS	Public hospitals, metropolitan	<ul style="list-style-type: none"> • frequency of use of ISBAR in handover • elements of minimum dataset used • ISBAR documentation in case notes • use of ISBAR for nurse calls to medical staff • number of rescues secondary to completing the ISBAR minimum dataset • time between events where a patient deteriorated due to incomplete telephone handover • use of ISBAR in discharge summary letters • number of patients receiving the recommended treatment in the timeframes in the 'recommended' section of ISBAR handover or escalation call • measures of effectiveness of handover or briefs that identify tasks to be completed by the home team and therefore reduce calls to the night cover • measures of effectiveness of handover or briefs that identify tasks to be completed by the home team
	Development of e-Learning tool for 'Leading Clinical Handover	NA	Measures of user satisfaction with the course, the degree to which it met learning needs and increased participant understanding of clinical handover.
	The Development of SOPs and Educational Resources for Shift-to-Shift, Medical and Nursing Handover	Public hospital	<p>From the consultation, suggested measures included:</p> <ul style="list-style-type: none"> • behavioural change • nurse / clinical satisfaction with handover • patient satisfaction / patient safety outcomes • cultural awareness • organised workflow <p>Objective measure suggested – e.g. fasting time on surgical ward</p>
Category 4	The Use of Reflective Video to Improve Handover	Public hospitals, metropolitan	<p>Changes made in participating hospitals:</p> <ul style="list-style-type: none"> • Moving from office based to bedside handover with more patient involvement • Single disciplinary to multidisciplinary ward rounds • Avoidance of potential adverse events through the implementation of bedside handover.
	Improving Residential Aged Care Facility to Hospital Clinical Handover	Residential Aged Care to hospital	<ul style="list-style-type: none"> • % residents discharged with information back to the RACF • Nursing discharge summary completion rate • Medications available on discharge • GP contact details included • Use of yellow envelope.

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