



THE UNIVERSITY OF
NEW SOUTH WALES



CENTRE FOR CLINICAL GOVERNANCE RESEARCH

EVALUATION OF THE SAFETY IMPROVEMENT PROGRAM IN NEW SOUTH WALES: STUDY NO 2 (a)



REPORT ON THE SIP TRAINING PROGRAMS

The Centre for Clinical Governance Research in Health undertakes strategic research, evaluations and research-based projects of national and international standing with a core interest to investigate health sector issues of policy, culture, systems, governance and leadership.

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1 ABBREVIATIONS AND DEFINITIONS

1.1 Abbreviations

AHS	Area Health Service
CCGR	Centre for Clinical Governance Research at University of NSW
CEC	Clinical Excellence Commission
DOH	NSW Department of Health
IIMS	Incident Information Management System
RCA	Root Cause Analysis
RIB	Reportable Incident Brief
SIP	Safety Improvement Program
SAC	Severity Assessment Code

1.2 Definitions

Clinical Practice Improvement	A combination of tools, techniques, skills and attributes designed to enhance care inputs, structures, cultures, processes, outputs or outcomes.
Culture	The configuration of attitudes, values, beliefs, meanings, behaviours and practices which together can be seen to be definitive of 'what people are' or 'where people come from'. Culture can be seen as a 'state' or something people possess, while it appears more fruitful to regard it as performance and also a process.
Ethnography	A research technique used for describing what human beings do in selected settings, usually comprising 'participant observation', field notes, narrative accounts, interviews, and other qualitative research methods.
Evaluation	The systematic examination of a policy, program or project aimed at assessing its merit, value, worth, relevance or contribution.
Formative Evaluation	Evaluation conducted during a course of a policy's, program's or project's life.
Innovation	The rate, propensity, capacity and effectiveness in adopting new ideas, practices or behaviours.
Organisational Culture	The collective set of relationships in organisations that differentiate one group from another in terms of dress, attitudes, values, behaviours, beliefs, language and shared meaning.
Summative Evaluation	Evaluation conducted at the end of a policy's, program's or project's life.
Triangulation	A multi-method research or evaluation design which adduces converging or diverging evidence drawn from pluralist sources to illuminate an object of inquiry.

2 EXECUTIVE SUMMARY

This report presents the results of the first part of study 2 in the evaluation of the Safety Improvement Program (SIP) in New South Wales. This study provides an analysis of a triangulated observational evaluation of two SIP training programs. We conducted this component of the evaluation in between September and December 2004. The report found that the SIP training course was based on sound and effective educational principles. It also found that the SIP effectively addressed key issues associated with the RCA process, and that it was generally well regarded by participants.

3 INTRODUCTION

3.1 Overview

The NSW Department of Health (DOH) and the Clinical Excellence Commission (CEC) have commissioned the Centre for Clinical Governance Research (CCGR) at University of New South Wales to conduct a formal evaluation of the Safety Improvement Program (SIP). This is a program to enhance safety in New South Wales. The DOH has commissioned this evaluation as part of its knowledge management program in safety and quality under CCGR’s contract to Develop and Evaluate a Knowledge Management Program for Quality Branch. The CEC is interested in the extent to which the SIP will make health care in NSW safer and better under CCGR’s contract to conduct a Research and Evaluation Program into Safety and Quality.

The Evaluation Protocol for this project noted: “SIP is a comprehensive safety program introduced to the NSW health system in 2002. It aims to improve patient safety by focussing on health care incident management. The objectives of SIP are:

- To make health care safer through constantly correcting system vulnerabilities by understanding why errors occur.
- To develop a culture where health care incidents are identified, reported, investigated, analysed and acted upon in a supported environment.
- To implement an information system that assists health care workers to achieve the first component.”

The overall evaluation of SIP takes the form of 12 inter-related studies (Table 1). This report documents the outcomes of study 2(a). It provides the results of a triangulated observational analysis of the effectiveness of the SIP training program. This component of the evaluation was conducted by Ms Jo Travaglia, Dr Rick Iedema, Mr Peter Nugus, Ms Debbi Long and Ms Nadine A. Mallock.

TABLE 1: Evaluation Studies

STUDY	TITLE	COMMENTS, ACTIONS AND TIMEFRAMES	LED BY/TEAM
Study #1	Literature Review	<ul style="list-style-type: none"> • National and international literature on patient safety and RCA processes • Appraisal of the evaluation process through the extant literature 	Peter Nugus, Jo Travaglia, Jeffrey Braithwaite
Study #2	Review of education and training program	<ul style="list-style-type: none"> • 2 a) Triangulated review of educational value of RCA program • 2b) Meta-analysis of SIP training program evaluation forms 	Jo Travaglia, Mary Westbrook, Peter Nugus, Rick Iedema, Debbi Long, Nadine Mallock

Study #3	Achievements of aims and objectives and stakeholder satisfaction	<ul style="list-style-type: none"> • Questionnaire to all course participants • Review of course evaluations 	Mary Westbrook, Nadine Mallock
Study #4	Ongoing applicability of training to participants	<ul style="list-style-type: none"> • Questionnaire to all course participants • Survey of international SIP programs to benchmark the current program in an international context 	Nadine Mallock, Mary Westbrook, Jeffrey Braithwaite
Study #5	Satisfaction of Faculty members	<ul style="list-style-type: none"> • Detailed interviews with faculty staff 	Debbi Long
Study #6	Program outcomes at local, area and state levels	<ul style="list-style-type: none"> • Review of RCA data submitted to the DOH • Questionnaire to all course participants • Interviews with key stakeholders 	Jo Travaglia, Jeffrey Braithwaite, Mary Westbrook, Nadine Mallock, Marjorie Pawsey
Study #7	Lessons learnt	<ul style="list-style-type: none"> • 7 a) In-depth observation and review of RCAs in situ • 7 b) Focus groups 	Rick Iedema, Rowena Forsyth, Christine Jorm, Peter Nugus
Study #8	Return on investment	<ul style="list-style-type: none"> • Questionnaire to all course participants • Interviews with key stakeholders 	Jeffrey Braithwaite, Jo Travaglia, Mary Westbrook, Nadine Mallock
Study #9	Effectiveness of SIP Committee	<ul style="list-style-type: none"> • Observation of Steering Committee • Review of outcomes 	Nadine Mallock, Jeffrey Braithwaite
Study #10	Management of RIB process	<ul style="list-style-type: none"> • Focus group • DOH data • Interviews with key stakeholders 	Jeffrey Braithwaite, Jo Travaglia, Nadine Mallock, Marjorie Pawsey
Study #11	Reporting processes	<ul style="list-style-type: none"> • Focus group • DOH data • Interviews with key stakeholders 	Jeffrey Braithwaite, Jo Travaglia, Nadine Mallock, Marjorie Pawsey
Study #12	Branch functions and actions	<ul style="list-style-type: none"> • Focus group • DOH data • Interviews with key stakeholders 	Jeffrey Braithwaite, Jo Travaglia, Nadine Mallock, Marjorie Pawsey

3.2 About this report

The training of health services staff in the assessment, analysis and reporting of incidents is one of the five key strategies of the NSW Department of Health's (DOH) Safety Improvement Program (SIP). The Department conducted 24 SIP training courses between November 2002 and December 2004.

The first 18 courses, run between November 2002 and November 2003, were conducted within individual Area Health Services (AHS). One course each was conducted for the state-wide Ambulance and Correctional Services¹. During 2004, an additional four courses were conducted at a central location in Sydney, both as a cost efficiency measure and as a way of providing training for new AHS employees. The original 20 courses have been designated by their AHS name at the time (e.g. Southern Area Health Service SIP Training), while the 2004 courses have been designated SIP 1 – 4.

From 2005, responsibility for training has been decentralised, and the courses will be conducted by the AHS themselves. The DOH has commissioned a SIP Train the Trainer program, which is being designed by the Cognitive Institute, a private provider of communication skills and risk management training to healthcare professionals. An additional training program, the last one provided directly by the DOH, was held on the 16 and 17 March 2005, in Sydney. The majority of participants were future SIP trainers, and were chosen by their respective AHSs.

Observers from the Centre for Clinical Governance Research, UNSW, attended SIP courses three (3) and four (4), held on 13 and 14 September, and 7 and 8 December 2004. The aim of the study was to conduct a triangulated observational analysis of the effectiveness of the SIP training program. The specific issues investigated were 1) course structure 2) course content 3) educational environment and materials 4) educational processes and 5) learner interactions. This report presents the combined findings from both teams.

¹ Please note that in this study subsequent use of the term “AHS” is used to denote the state-wide Ambulance and Correctional, as well as Area Health, Services (AHS).

4 METHODS

4.1 Aim

The aim of the study was to conduct a triangulated observational analysis of the effectiveness of the SIP training program.

4.2 Method

Researchers from the Centre for Clinical Governance Research (CCGR) attended two training sessions. Three observers attended SIP training course number three (3), held on the 13 and 14 September 2004. Two different observers, also from the CCGR, attended SIP training course number four (4) held on the 7 and 8 December 2004.

The observers evaluated the full courses, attending all course presentations, and participating in all activities including small group work and discussions. They each independently reviewed the content, process and organisation of the program and the course materials. Observers also informally spoke to other participants and Faculty members about their experiences during the course. They made field notes of their observations, and compared these at several later meetings. The findings that follow emerge from the final set of field notes.

5 FINDINGS

5.1 Course structure

Aims and Objectives

The aim of the NSW SIP training course is:

“... to alter the way we think about error and to create a broader understanding of the human factors of health care, the dynamics of working in teams and how to apply a systems approach when investigating incidents in an organisation.”

TABLE 2: Objectives of SIP Training

OBJECTIVES
<ul style="list-style-type: none"> • To provide an overview of the SIP in NSW • To identify and prioritise adverse and sentinel events • To use and understand the critical steps in undertaking a Root Cause Analysis • To formulate recommendations that address the causal and contributing factors • To 'close the loop' through implementation and evaluation of actions and recommendations

SIP Faculty

The NSW Faculty members are drawn from the Clinical Excellence Commission, the DOH Quality and Safety Branch, and from Area Health Service. In September and December 2004, these were:

- Dr Paul Douglas: Clinical Excellence Commission and Hunter Area Health Service
- Ms Sarah Michael: Quality and Safety Branch, DOH
- Dr John Overton: Clinical Excellence Commission
- Dr Tom Hugh: Clinical Excellence Commission.

Participants

In the 2004 SIP courses the DOH allocated each AHS a set number of places per course. Approximately 80 participants were present on the first day of each course, with a small decrease on the second day of the course observed.

Where the full complement of places was not taken up by any individual AHS, additional places were then offered to the other AHS. The result was that a range of participants from across metropolitan and rural AHSs attended each SIP course. In a few cases a team or part of a team from an individual AHS attended.

Professionals from a number of disciplines and roles including medical, nursing, and allied health staff, as well as managers, participated in the courses observed. Participants also had a broad range of experience: some participants had never undertaken an RCA, some had participated in some capacity or other on one or a number of RCAs, yet others were very experienced RCA conveners who were about to undertake the ‘Train the Trainer’ program. This range of experience presented a particular challenge to the Faculty, who had to accommodate a wide range of learning needs.

Organisation

Pre-course organisation, including applications and information directions was handled by a staff member of the CEC/DOH. All the information provided was clear, comprehensive and sent in a timely manner. The pre-course materials included timetables, map of the training location and suggestions about accommodation options. Applications and queries were processed speedily, as were confirmations of acceptance.

The course was conducted over two days. The first day commenced at 8am with registration, and finished at 6pm. The second day began at 8 am with an earlier, 3.30pm finish. This was explained by Faculty both as a modification brought about because previous participants had felt exhausted from the amount of information being provided and processed and as a reward to participants for hard work. From the perspective of the NSW DOH, the earlier finish was organised in order to expedite travel for participants coming from locations outside of Sydney.

The courses were conducted at the Macquarie Graduate School of Management (MGSM), Macquarie University, North Ryde. MGSM is located in within the park-like grounds of the University. Participants could choose to stay at the MGSM, at the Travelodge within the grounds, or at nearby hotels. Accommodation costs were not met by the DOH. The facility was chosen for its suitability for the training with a large room and several breakout rooms, central location and Sydney, and with parking and accommodation available.

Participants were greeted by Faculty members and CEC staff on arrival. While education/information sessions were held in a large group, small groups (designated as “meetings” in the course agenda) comprised approximately 8 individuals. As they signed in, each person was given a name tag with an identifying sticker, to denote membership of a specific small group. This was done so as to ensure a mixture of participants from each AHS across the groups. These small groups stayed together throughout the small group sessions, but dispersed in the large group meetings, often sitting at tables with colleagues or acquaintances.

Coffee was provided on arrival, as well as morning and afternoon tea, and lunch. During breaks, comfortable areas were available where participants could meet in small groups or discuss issues such as previous experiences with RCA teams. The standard of food was high and provided free of charge.

Just-in-Time Training

It should be noted that along with the standard SIP course, staff from the DOH and CEC, as well as AHS Patient Safety Managers (PSMs) also provided just-in-time training. These sessions were conducted on-site at the AHS, usually in response to requests from management. They are significantly shorter than the standard SIP training, sometimes taking as little as an hour.

5.2 Course content

Table 3 indicates the topics covered in both of the training sessions observed. The content of the course was consistent with its stated aim and objectives.

TABLE 3: Teaching Sessions September and December 2004

FACULTY AND SESSIONS	
Presenter	Session Title
Day 1	
Ms Sarah Michael	Welcome and Introduction
Dr Paul Douglas	Objectives Where this fits Why bother? Brief overview of the full RCA process Severity Assessment Code
Ms Sarah Michael	Getting started on the RCA process and Meeting 1
All Faculty	Meeting 1 Group work
Dr John Overton	Gathering information
Ms Sarah Michael	Meeting 2 (part 1) – Video, overview
All Faculty	Meeting 2 (part 1) – Group work
Dr Tom Hugh	Human factors – Introduction and communication
Day 2	
All Faculty	What did we learn on day 1?
Ms Sarah Michael	Meeting 2 (part 2) – Overview
All Faculty	Meeting 2 (part 2) – Group work

FACULTY AND SESSIONS	
Dr Paul Douglas	Beyond Blame
Dr Paul Douglas	Meeting 3 – Causal statements
All Faculty	Meeting 3 – Causal statements group work
Dr Tom Hugh	Barriers
Dr Paul Douglas	Meeting 3 – Recommendations, measures
All Faculty	Meeting 3 – Recommendations group work
Dr Paul Douglas	Wrap up and evaluation

Conceptual content of course

Staff from the NSW DOH Quality and Safety Branch developed the SIP training program in consultation with Dr Jim Bagian, Director of the of the US Veteran’s Affairs’ National Centre for Patient Safety (NCPS). The NSW course is based directly on the NCPS course, with modifications reflecting the NSW medio-legal and social context. What follows are the core concepts identified during the course, in point form²:

TABLE 4: Core Concepts Addressed in SIP Course

CORE CONCEPTS	
<ul style="list-style-type: none"> ▪ Location of SIP in NSW Health 	<ul style="list-style-type: none"> ▪ The SIP has developed, at least in part, out of the NSW Quality Framework. The Clinicians’ Toolkit provides an overall governance and performance framework ▪ The framework includes a range of policies, indicators, tools, review and reporting systems, all of which are being utilised as ways of improving quality and safety ▪ SIP is a joint initiative of DOH Quality and Safety Branch and ICE/CEC to manage quality, whilst the Toolkit provides the process to improve the quality and safety of care provided
<ul style="list-style-type: none"> ▪ Rationale for SIP 	<ul style="list-style-type: none"> ▪ While controversy continues about the rates of adverse events, there is strong evidence from key inquiries and country specific studies (including Australia) which indicates that medical errors and adverse events are a significant problem

² Please note that these points do not necessarily reflect the amount of time spent on each concept in the course, as many concepts, such as those involved in conducting an RCA, included significant amount of discussion and practice time for each step in the process.

CORE CONCEPTS

- Incident reporting
 - The SIP is structured to address the wide varieties of “incidents” and adverse events which occur
 - While sentinel events cause the greatest harm and receive the greatest attention, it is recognised that health services can often learn the most from other types of “continuously occurring” incidents and near misses
 - Systems approach
 - A system approach to medical error moves the focus away from the “blaming and shaming” of individuals
 - Blaming has been shown to prevent disclosure of errors from health staff
 - SIP tools
 - Severity Assessment Codes (SACs), Reportable Incident Briefs (RIBs) and Root Causes Analyses (RCAs) have been implemented to assist health services to determine the “...most basic cause that can be reasonably identified, and that the management has control to fix.”
 - Appropriateness of RCAs
 - RCAs are not appropriate in all circumstances. There are a clearly defined set of indicators which flag whether an RCA should not be commenced or that it should cease immediately, and alternative action taken
 - These include: if there has been a criminal act; if there has been a purposefully unsafe act; if an act is related to alcohol or substance abuse on part of the staff member and’ if the event involves alleged or suspected patient abuse of any kind
 - RCA process
 - The RCA process involves the convening of a team of 3 – 5 members, with a designated leader
 - Analysis of the adverse event should be commenced within 7 days of its occurrence
 - Teams undertake a series of interviews to determine the root causes of the event
 - The also provide final report with recommendations for future preventative actions. These reports are signed off by the AHS’s CEO or their delegate within 45 days of the commencement of the RCA
 - On average the process can be completed in three meetings, and will take 6–10 hours per person
 - RCA meeting 1
 - In the first meeting the team identifies the sequence of events and what is known and what is not known and needs to be known
 - Between the first and the second meeting, team members are expected to find out the missing information, which will include interviewing, i.e. “gathering information” from key participants

CORE CONCEPTS

- RCA meeting 2
 - Meeting two involves the creation of a detailed timeline/flow diagram with all relevant information
 - This focuses on answers to the “how, what and why” questions from the cause and effect diagram
 - RCA meeting 3
 - In meeting three, the team determines the root causes of the event, focusing on systems factors, constructs causation statements for each crucial root cause and develops actions and recommendations
 - There are five rules of causation which lead the team through the final process
- Human Factor Analysis
 - Human factor analysis recognises that when highly training and strongly motivated people interact with complex technology, *“error is embedded in normality”*
 - Error models such as James Reason’s “Swiss cheese” or the domino model tend to oversimplify events, but provide a way of thinking about the multiple factors and time frames involved
 - The prevention of errors is affected by the absence (or presence) of a safety culture, error-related behaviour patterns including group think, error-engendering conditions, assertiveness and attitudes (particularly health professionals)
 - Substitution tests are also used to assist with considering causes of error. These include: *“What would I have done, all things considered?”* and *“What would a reasonable person have done, all things considered?”*
- Causes of adverse events
 - The most significant root causes of surgical adverse events at the time of the training were (in order from the highest to the lowest):
 - Communication problems (verbal/written/cultural)
 - Non-compliance with protocols
 - Knowledge, skills, competence and supervision
 - Work environment and scheduling
 - Patient factors
 - Equipment and safety mechanisms

CORE CONCEPTS	
<ul style="list-style-type: none"> ▪ Support following SIP training 	<ul style="list-style-type: none"> ▪ SIP training is followed up by regular meetings with Patient Safety Managers (who are employed in each AHS) as well as follow up visits within 6 months of training ▪ Phone contact is provided by the DOH as required ▪ There is also a sharing of patient safety information through the ICE website and DOH Safety Alerts
<ul style="list-style-type: none"> ▪ SIP issues 	<ul style="list-style-type: none"> ▪ The most common SIP issues are: the initiation of RCA teams; where recommendations go; whether information is privileged; confidentiality and resource implications ▪ The biggest risk, according to the Faculty, is that of “no action”
<ul style="list-style-type: none"> ▪ Organisation of RCAs 	<ul style="list-style-type: none"> ▪ Each AHS will have a central RCA co-ordinator, and each Area is expected to build up a pool of RCA ‘experts’ ▪ Each person participating in RCA training will be involved in at least one to two RCA teams before they can act as a team leader ▪ In order to maintain their skills, it is expected that each individual be involved in at least three RCAs per annum

5.3 Educational environment and materials

Learning environment

During large group work, participants were seated at tables of approximately 12 people, with three rows of four tables across the room. Overall the large learning space was pleasant and the room was comfortable in temperature, with good lighting and few distractions.

The audio-visual system was appropriate for the educational approach and content of the SIP course. Most participants had a clear view of overheads, although this was more difficult for those at the back of the room. Use of microphones ensured people could hear the speakers well, although there was no evidence of a loop system for the hearing impaired (this may have been provided). Each table had a steady supply of water, refreshments and writing materials.

The “large” learning space was slightly small for the number of participants who attended. In practice this meant that there was not really enough room to move around, or to get easily out of chairs (without disturbing others). Interaction during presentations was largely limited to people sitting nearby and, when directed, to the whole table. The closeness of the tables may actually have limited some interactions. The seating arrangements may also have made it difficult for some participants to observe some of the presentations. The small break away rooms for small groups were well formatted, and set out appropriately for the assigned tasks.

Course materials

The material provided to support the course included a resource manual (NSW Health and Institute for Clinical Excellence, 2004a) comprising slide print-outs and activity handouts. Included in the package were the Severity Assessment Code (SAC) sheet and the Checklist Flip-chart for Root Cause Analysis Teams (NSW Health and Institute for Clinical Excellence, 2004b). Additional readings were also included. The manual was given to participants upon their arrival at the course.

The slide printouts contained in the manual were largely the same as those of the speakers. In some instances, however, the speakers' slides had been updated (or deleted) while the printouts in the manual reflected earlier courses. There was occasionally lack of clarity as to where a particular section was located in the manual.

The layout of the slides allowed for participants' notes, and many appeared to be supplementing what was printed, taking extensive notes on speakers' presentations. There were more resources in the workbook than were pointed out in the session. To make full use of the resources, participants would have to take the time after the course to go through the manual and acquaint themselves with the appendices and extras. Very little comment was made of the additional readings in the manual by the Faculty.

Instructions for the small groups were included in the manual (pp 51-54), and were clear. Not everyone in the small groups, however, followed the instructions, despite the fact that these were clearly articulated at the meeting, with the objectives of each breakout group presented in the last slide of each session. In some cases participants noted that this was because they hadn't been aware that the instructions were there.

Coverage and timing of content

Overall the course had significant depth and breadth to cover its objectives. Its core, both conceptually and in terms of the amount of time spent on the topic, was the process of conducting RCAs.

Given the centrality of the RCA process to SIP it is understandable that the bulk of the training program was focussed on learning about, and practicing, the process. This meant, however, that of the 12 hours 30 minutes available training time (including time for evaluation) 9 hours 15 minutes were spent on RCAs and related processes. There was two hours for introduction, 1 hour 45 minutes on human factors, including communication, 10 minutes for reviewing day one's activities, 35 minutes on barriers to preventing adverse events and 45 minutes for a wrap up and evaluation.

A few participants commented on their individual need for more in-depth discussion, practice or consideration in a number of areas. These included: human factor analysis including the role of organisational and safety cultures; methods for gathering data from individuals involved in incidents; barriers to errors; how to "gather the gold" from evidence on near misses; strategies and support for overcoming barriers and resentments to the RCA process.

It appeared to the researchers, that in a small number of large group sessions the information provided did not lead directly into the next small group task, such as in the case of data gathering. As a result there was little opportunity to discuss the content or to practice skills which related directly to this facet of the course.

5.4 Educational processes

Learning activities

The course employed a wide range of adult learning strategies and activities. These included:

- Large group, didactic sessions
- Think-pair-share activities in large group
- Paper and pencil tasks
- Audio-visual presentations of cases
- Audio-visual “snippets” which were entertaining and reinforced learning points
- Demonstrations with both Faculty and participant involvement
- Question and answer sessions
- Guided small group work
- Feedback/discussion presentations from small groups
- Energiser activities.

Learning activities were managed effectively and efficiently. They were based on solid adult learning principles and reinforced the content effectively.

Audio-visual materials

DVDs and video clips were used effectively through out the program, both to provide practice examples and to underscore points of discussion. Audio-visual equipment mostly worked smoothly, and appeared adequate to requirements. A more detailed discussion of the content of these materials will be addressed in the following section.

Three main DVDs were utilised in the learning process. One was based on an Australian case study of an adverse event, the second on a UK vincristine incident and the third on the experiences of US health professionals who were involved in adverse events. Participants were prepared for each video by a Faculty member, via an introduction about the video’s content and intent.

The UK vincristine video was used extensively and formed the basis of the RCA small group activities. The Australian scenario was essentially dealt with in the large group, but was used as a training case throughout the sessions. The US video, which was highly emotional, ran for ten minutes, and was followed by ten minutes discussion.

All of the presented video examples were clinical, primarily involved doctors, with peripheral nurse involvement, with the exception of the US video which showed the impact on some nurses who had been involved in adverse events. None showed allied health, primary or community care examples.

Presentations

The four Faculty staff appeared to have clearly defined roles and demarcated responsibilities for teaching particular sessions. All had different, but complementary, presentation styles. There was a strong sense of expertise and experience in dealing with RCAs. The Faculty presented as knowledgeable in their subject. There was an understanding of the difference between the way an RCA should ideally work, and some of the constraints that may lead to less than ideal circumstances in practice.

The course was run on almost an equal mix of didactic input and practice session. Faculty spoke to their PowerPoint presentations, combining information on the screen with anecdotes and examples from the field.

Material was mostly presented clearly, and at a rate that appeared to be appropriate to most participants. The wide variation in participants' knowledge presented a potential challenge for the Faculty, and was mostly well handled.

During presentations, speakers were open to comments and questions from the participants. Due to the large amount of material to deliver in a compact amount of time, however, question and discussion time was of necessity limited. Within this constraint, Faculty were excellent at eliciting questions, moderating discussion and facilitating exploration among participants.

The sessions were punctuated by activities which could earn tables of participants points towards prizes which were handed out at the end of the day. These activities included a variety of "IQ" tests, and associated games. The intent was to reinforce participants' adherence to the timetable, to provide stimulus when energy levels were flagging (such as after lunch) and to build group spirit. These appeared to work well, and were mostly appreciated by participants, although they may not have suited all learning styles.

Accuracy of language use

There were occasional confluences of language use that lead to minor levels of confusion amongst participants. For example, there appeared to be a conflation of "RCA" with "Safety Improvement". The course was labelled a "Safety Improvement Course", however most of the participants referred to it as "RCA training". RCA is one of a number of safety improvement tools: this aspect may be at risk of being lost in this conflation.

5.5 Learner interactions

Large group participation

All presenters asked participants to feel free to comment or ask questions during the process. In the large group, however, given the depth of information covered, this did not occur frequently. No individuals, groups (or professions) seemed to dominate the large group.

In general, organisation of feedback to the large group from the small group sessions (labelled “meetings” in the timetable) was seen as being an effective way of allowing for some additional discussion and participation by group members. Each group presented at some point in the process, but not every group each time. This effectively avoided the frequently experienced “sit and wait” processes while all groups repeat virtually the same information. Faculty also provided supportive feedback after each small group presentation.

Small group meetings

There was much more opportunity to interact at the small group level, and this occurred as the groups worked their way through the RCA process. After each major didactic session on RCAs, the larger groups broke up into smaller groups to practice the skills and “enact” an RCA. Roles were changed around in different sessions, so that various group members could experience being the group leader, or the group recorder (or scribe). Faculty members dropped in on small groups to offer advice, encouragement and to answer questions.

Based on general discussion with participants, there was agreement that the small group sessions were highly effective at allowing people to put into practice the knowledge they had gained in previous sessions, and in most cases to try out the associated skills. There were however, some issues raised by participants and observers.

These included: some participants felt confronted by the case example used; there was a lack of background information on the case example which may have caused confusion for some individuals; and minor process issues surfaced from time to time. For instance, Faculty members were available to small groups only for a limited time in each session; some groups ran out of time, as is often the case; some small groups worked together better than others; as occurs often, sometimes 1–2 individuals took the lead in the group because they had previous experience in RCAs; some concerns were expressed by some about their ability to write real-world causal statements; and the dispersal of people in the large room, once they had returned from their breakout groups, may have slowed down further discussion on their learning in the groups.

Dissonance of some participants’ experience

The researchers observed that there were some instances in which the experiences of the participants in terms of what was happening with RCAs in their own AHS was described by the participants as being at odds with Faculty perceptions. For example, the first slide on p102 in the manual provides a “summary of RCA obligations”, one of which is that the “manager and team involved in incident informed in regards with RCA”. Faculty members stated “This is happening”. One participant shook her head firmly and said in an undertone “This is not happening”, to which a number of people at her table nodded in agreement.

Later in that session the Faculty member commented “When managers get involved they are more likely to sign off”. Earlier, in an informal discussion during a coffee break, a number of participants commented that managers get involved, and they may be very enthusiastic during the RCA process, but then “...*turn round and refuse to sign off.*”

Resource implications (p102 of the manual) seem to be at odds with on-the-ground experience: the slide states “Time for participants has not been a problem”, and time was estimated by Faculty as 30-45 hours per RCA. Many participants felt that time was a particular challenge in undertaking RCAs.

A small number of participants expressed concerns, in small groups and during breaks, about the impact of participating in RCA teams, including the possibility of retribution and long term impacts on their careers. This is despite the assurance of the Faculty of the support of the DOH and the AHS Executives for the program.

6 DISCUSSION

Five observers from CCGR attended two SIP programs at the end of 2004. The observers come from a range of social science, adult education and training and health services research backgrounds. All observers have adult education experience; two have higher degrees in adult education and training. Each observer recorded individual findings on, and analyses of, the program attended based on a set of key areas as reflected in the structure of this report. These findings were then compared and collated by a single researcher, who sent the report back to observers for verification.

In evaluating the SIP training program observers were cognisant of the literature on the evaluation of adult education and training, as well as that pertaining to the implementation of, and training relating to, safety improvement programs. An analysis of this literature is provided in study 1 of this evaluation, and so is not replicated here. Overall this education was judged to be excellent. Faculty is highly skilled, the educational processes are sound, and participants are challenged, enjoyed the experience, and learned a great deal. Materials provided in support of the training are uniformly good and professionally presented.

A modification of Scriven’s work on illuminative evaluation (Athanasou, 1995) provided some key questions which guided the observers. It provides a framework for a detailed commentary on the major findings:

TABLE 5: Discussion of Findings

EVALUATION QUESTIONS	DISCUSSION OF FINDINGS
<ul style="list-style-type: none"> ▪ Why was the course introduced? 	<ul style="list-style-type: none"> ▪ The course met its stated aims. The structure of the training, however, meant that less time was spend on the first part of the aim that is, developing a “broader understanding of the human factors of health care” and more on working in teams and applying a systems approach to investigating incidents
<ul style="list-style-type: none"> ▪ What are its intended outcomes? 	<ul style="list-style-type: none"> ▪ The course also met its objectives. The last objective of 'closing the loop' through implementation and evaluation of actions and recommendations was restricted to practice in writing recommendations, and a comparatively uncritical representation of the way in which recommendations are being implemented in the field ▪ Analysis of outcomes is addressed in Study 3 of this report

EVALUATION QUESTIONS	DISCUSSION OF FINDINGS
<ul style="list-style-type: none"> ▪ How was the course implemented? 	<ul style="list-style-type: none"> ▪ The course was implemented in an appropriate educational style, one which met adult education theories of learning and teaching ▪ Some minor areas of tension existed in coverage of information, the need for greater depth in some topics, the relevance of examples used, the management of the small groups, and the representation of the outcomes of, and systemic responses to, RCAs ▪ The length of the course, 2 days, is at slight variance with the standard 3 day course for both the NCPS in the US, and the NPSA in the UK. The NPSA, like the NSW DOH, also offers a range of shorter courses, although the NPSA also offers more specialised courses (i.e. for mental health practitioners). Its 3 day course is run one day a month for three months, so that individuals can practice their skills in between.
<ul style="list-style-type: none"> ▪ How do participants feel about the course? 	<ul style="list-style-type: none"> ▪ Feedback from participants was, on the whole extremely positive about the course ▪ Study 2(b) provides more detailed information on participants' responses to the course
<ul style="list-style-type: none"> ▪ Who are the key stakeholders? 	<ul style="list-style-type: none"> ▪ Key stakeholders are DOH, CEC, the Faculty, the AHS and the participants. Information from each of these groups is presented in the other studies in this evaluation
<ul style="list-style-type: none"> ▪ What are the social costs and benefits of the course? 	<ul style="list-style-type: none"> ▪ The key social benefits of the course are the interactions between participants across facilities, AHS and rural and metropolitan areas, and between discipline groups. ▪ The main social cost may be where individuals have led small group proceedings and other individuals were not able to express their concerns or participate as fully as others
<ul style="list-style-type: none"> ▪ What constraints are operating? 	<ul style="list-style-type: none"> ▪ The standard length of the course may be a constraint for some people who would benefit from more interaction or discussion ▪ The number of participants able to attend any one course, which will be addressed by the new AHS based courses ▪ Participants have to physically attend the course (there are no computer or web based versions of the course)

EVALUATION QUESTIONS	DISCUSSION OF FINDINGS
<ul style="list-style-type: none"> ▪ What are the advantages and disadvantages of the course? 	<ul style="list-style-type: none"> ▪ Advantages included (as well as all the positives identified above) the: <ul style="list-style-type: none"> - ability of participants to mix across AHS and facilities - quality of the teaching - removal of participants from workplaces to allow them to concentrate on the tasks at hand - follow up provided by the DOH and PSM ▪ The disadvantages of the course include the: <ul style="list-style-type: none"> - under-representation of some topics or issues because of this, including the conflation of SIP and RCA - lack of examples from disciplines and units other than acute clinical (e.g. mental health and community health) - some lack of acknowledgement and utilisation of different levels of expertise of participants - pressure of time to discuss “real world” implementation and barriers
<ul style="list-style-type: none"> ▪ How will the evaluation findings be used? 	<ul style="list-style-type: none"> ▪ As the course will no longer be provided in its current format, the key findings are those relating to content, which can be considered by those developing both the train the trainer program, and by the DOH in providing future advice on content of these courses.

7 CONCLUSION

The SIP training course, as designed and implemented by the NSW DOH, and the CEC, was an efficiently run and appropriately designed training program which effectively met its objectives and the needs of its target group. It has made a strong contribution to the creation of a knowledgeable cohort of personnel about SIP and RCAs in New South Wales.

That said, a small number of concerns was raised by participants or observed by researchers. These related to: the relatively short length of the course; its appropriateness for individuals with previous experience in RCAs (although many of these may have been asked or chose to participate because they wished to become trainers); the coverage of more complex and controversial topics; the depth of some topics (in particular: human factor analysis, including the role of organisational and safety cultures, methods for gathering data from individuals involved in incidents, barriers to errors, how to “gather the gold” from evidence on near misses, and strategies and support for overcoming barriers and resentments to the RCA process); the actual or potential interactions between learners in the small group settings; and the transferability of learning to the workplace in the face of potential resistance.

A key issue in this study has been how these findings can inform the transfer and future development of the course once it is handed to the AHS themselves. As identified in the discussion, this transfer can have many positive outcomes. The AHS should be able to provide local examples and contexts for the training. AHS should also, potentially, be able to provide ongoing support, coaching and mentoring to RCA teams and individuals.

While the DOH and CEC hands over ownership of the SIP training process to AHS, they should retain a role in providing leadership and direction about the overall content and quality of the SIP training, as well as its ultimate outcomes. A state-wide perspective ought to be maintained on the need for new or extension courses, and to facilitate discussion about the range of possible educational modes, as well as content, which could be used to support RCA teams across AHS. Most importantly the DOH and CEC must monitor the number of staff and trainers trained and barriers to, or ramifications for, the participation in RCA teams.

8 REFERENCES

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