



THE UNIVERSITY OF
NEW SOUTH WALES



CENTRE FOR CLINICAL GOVERNANCE RESEARCH

EVALUATION OF THE SAFETY IMPROVEMENT PROGRAM IN NEW SOUTH WALES: STUDY NO 7(a)



REPORT ON LESSONS LEARNED FROM
CONDUCTING RCAs

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 7 in the evaluation of the Safety Improvement Program (SIP) in New South Wales. This study provides an analysis of the *Lessons Learnt from Conducting RCAs*. It became clear from our research that RCAs offer great potential for learning, but that the process confronts clinicians with a range of challenges when it comes to arranging and executing the requirements of an RCA. The opportunity for learning inherent in the RCA process is contingent upon clinicians being able to overcome the challenges that RCAs pose for them. We see these challenges as including the following seven aspects. First, selecting clinicians into working parties is difficult, because people need to be found who have some practical experience of the problem, but also enough managerial influence to be able to extract feasible accounts, and sufficient political credibility, confidence and stamina to be able to bring the investigation to a meaningful conclusion. Second, those invited onto the working party need to feel they are not disrupting their own relationships with others by being put in charge of investigating their colleagues' errors, or feel that they are jeopardising their own career chances. Third, working party members need to be able to manage for and among themselves their clinical colleagues' sometimes divergent or incomplete accounts about what went wrong. Fourth, formulating recommendations that are politically recommendable and practically executable is a delicate balancing act. Fifth, the RCA procedure that requires RCA working group parties to work within the constraints of document management goes against common understandings of and approaches to research investigation, leading to questions and at times challenges by clinical experts. Sixth, line management is confronted with having to support the recommendations coming out of RCA investigations, part of which may be reassessing and renegotiating specific recommendations and their merit, adding to an already challenging managerial task. Seventh and finally, ensuring that clinicians act on recommendations that are agreed on is a highly complex matter. This is due not just to clinicians' claims to expert status, expertise and professional autonomy, but also due to the absence of mechanisms through which sustainable change is adequately monitored.

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 7(a). It provides an analysis of the lessons learnt from conducting RCAs. This component of the evaluation was conducted by Dr Rick Iedema, Dr Christine Jorm, Mr Peter Nugus and Ms Rowena Forsyth.

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

This report summarises the main findings from our observations of two RCAs at a teaching hospital and from in-depth interviews with the staff of the hospital's Clinical Practice Improvement Unit and numerous formal and information discussions with clinicians and researchers. The first RCA targeted a medication error, and the second targeted an incorrectly administered scan.

It became clear from our research that RCA's offer great potential for learning, but that the RCA process confronts clinicians with at least seven major challenges when it comes to arranging and executing the requirements of an RCA. The opportunity for learning inherent in the RCA process is contingent upon clinicians being able to overcome these challenges.

4 METHODS

Our methods included observing RCA working group parties as they met and discussed the critical incidents, discussing the critical incidents with the Quality Coordinator, and tape-recording and transcribing these exchanges. We collected three hours of tape-recorded data and transcribed and content analysed this data. In addition, we collected three hours of non-tape-recorded observational data, whose analysis is also included in this report.

5 FINDINGS

It became clear from our research that RCAs offer great potential for learning, but that this learning is contingent upon clinicians overcoming at least seven challenges as they go about arranging and executing the requirements of an RCA. These seven challenges are as follows.

First, selecting clinicians into working parties is difficult. This is because people need to be found who have some practical experience of the problem, but also enough managerial influence to be able to extract feasible accounts from clinicians originally involved in the critical incident. Thus, RCA team members need to have sufficient organisational credibility, personal confidence and stamina to be able to bring the investigation to a meaningful conclusion. From our observations it became clear that inviting clinicians on to an RCA working party was far from straightforward and unproblematic. On the contrary, the organiser of the working party (the Quality Coordinator) had to think carefully about the consequences of appointing specific people. This person agonised over whether to choose some people over others, weighing up the advantages and disadvantages of some members compared to others. Some people may be too far away from where the event occurred, not just in terms of experience and technical knowledge, but also in terms of political and personal influence. The RCA Guidelines regarding this issue notwithstanding, it is therefore crucial that the Quality Coordinator selects team members who have the knowledge to comment on the clinical area, as well as command some power to influence those who are responsible for acting on recommendations coming out of the RCA.

We are shown the NSW Health RCA Guidelines and [he] points to 3:17, 'Team Leaders', Point 6 "Establish clear boundaries with others interested in the RCA process and actions. Only the Director has the authority to non-concur with an RCA team action and request a revision to any action. Do not put department heads or administrative gate-keepers in the position of editing, revising or censoring the RCA action plan." The RCA team convener comments: "this is rubbish, you have to get people with power on board or your recommendations don't go anywhere".

Equally, and also in contrast to the formal guidelines, we found that the Quality Coordinator needs to recruit clinicians who are sufficiently close to those who were at the centre of the critical incident. This was found to be important for managing the ways the investigation is done and the recommendations are framed, such that stakeholders who are 'inside' the domain where the critical incident occurred do not set themselves up in opposition to what the working party is trying to achieve.

The Quality Coordinator expected [name of doctor who has been invited onto the RCA working party] to be 'an issue' because of the potential outcome of this critical incident that occurred in their department, but then there was the lead-up to the incident as well in another department, so the person working there who was also on the team could also be defensive. All this 'sensitive' information was factored in as team selection was finalised and supporting documentation for the first meeting was prepared.

Second, we found that those invited onto the working party need to feel they are not disrupting their own relationships with people by being in charge of investigating their colleagues' critical incidents, or feel that they are jeopardising their own career chances. Thus, with regard to the case reviewed, for the doctor invited onto the RCA working party there is the risk that his or her participation is read as siding with outsiders and thereby as a challenge to internal departmental relationships and allegiances. Equally, for the nurse there is a risk of being seen to be acting against the interests of her professional fraternity. These tensions need to be anticipated and managed, not just by the doctor and nurse invited onto the RCA team, but also by the person organising the RCA team and planning its likely unfolding, the depth of its inquiry, and the strength of its recommendations.

It is in this way that the Quality Coordinator and the clinicians invited onto the team negotiate a mutually acceptable *tenor* for the investigations and the recommendations. The term *tenor* here refers to the degree to which issues are probed and relationships are put under pressure. Central then to this part of the process is working out in advance whether the RCA will be a collaborative and perhaps somewhat forgiving exercise or whether it will be a more inspectorial and controlling one. While the formal distinction between criminal and erroneous behaviour may provide some guidance on this issue, for less clear-cut cases it is down to the practical insight that the RCA convenor has into the nature of the error event and the kinds of people involved that will be central in determining which approach is appropriate for what circumstances.

Our informants note that there is a delicate trade-off between political credibility of the RCA (i.e. involving high powered people who can legitimate its findings/recommendations) and the investigative enthusiasm and higher levels of availability of less senior people.

Third, working party members need to be able to process and manage for and among themselves clinicians' different and sometimes divergent accounts about what happened. An important part of this is understanding others' clinical areas and making informed judgments about them. These tasks require considerable research and consultation, and often consume more time than is allowed for in the formal RCA procedures laid down in the NSW Health Manual.

This challenge begins as soon as the RCA convenor prepares the documentation needed to enable the team to reconstruct the timeline of the critical incident and begin documenting the contributing factors. Critical questions that arise during this part of the process include: were the nurses able to establish from available medical record information whether the patient had any pre-existing conditions or history of problems with the medication; how much time elapsed between ED and theatre and who checked up on the patient when and did what; what information did the clinicians have in theatre, and so on. The answers to each of these 'objective' questions are not always unambiguous. It is for that reason that different accounts need to be recorded and respected as well as reconciled.

Fourth, making recommendations that are both politically recommendable and practically executable is a delicate balancing act. Having people from the relevant departments on the RCA working party is one way of averting suspicion of and non-engagement with the investigations and recommendations. That said, the processes of agreeing on who should be interviewed about what facet of care, and how to formulate recommendations that should lead to changes in practices, are complex. We found that in our research the convenor was the person who was best placed to anticipate any risks of political-personal fall-out and identify any opportunities for organisational learning. This was because s/he knew the organisation and its personnel very well: s/he knew the boundaries of different people's flexibility; the limits of learning and change in particular units and departments, and the technical and practical constraints likely to affect any recommendations proposed. Our main finding here is that a knowledgeable Quality Coordinator is central to accomplishing RCA investigations that can benefit the organisation and its members.

One informant asks, what cases do you pick to do an RCA on: SAC 1s? The problem with these is that they all cause too much anxiety and defensiveness. Focusing on PSAC1s much better – there is less anxiety because the problems are hypothetical. As a consequence there will be better learning.

Fifth, the RCA procedure requires RCA working group parties to work within the constraints of legal and document management processes with interviews, research and additional information kept and notes made. The only output of the RCA process is a set of recommendations. We found that particularly with doctors, this practice goes against common understandings of and approaches to research investigation and is likely to attract contestation of the RCA process in general and of its recommendations in specific.

One clinician commented that “We have been informed that the process of [RCA] enquiry is confidential, and several explanations are given. However I find this difficult to understand”.

While the RCA procedure recognises that it is important to have impartial and outsider experts commenting on the practices of the hospital that are at the heart of an investigation, to constrain the documentary evidence before distilling the investigation down to recommendations denies the recommendees' transparency into the reasoning behind the recommendations proposed.

Sixth, we found that line management is now confronted with having to support the recommendations coming out of RCA investigations. An inevitable facet of this is reassessing and renegotiating specific recommendations and their merit for these managers' units or departments, such that they can be seen to be knowledgeable about these recommendations' substance. This adds to an already challenging managerial task.

Seventh and finally, ensuring that clinicians act on recommendations that are agreed on is a highly complex process. This is not just because managers' roles in this regard have not yet been redesigned, but also due to clinicians' propensity to defend their expert status and professional autonomy, as well as a lack of agreed mechanisms through which change is adequately, defensibly and sustainably monitored.

We are shown a letter from a senior staff specialist who had been the target of past RCA recommendations. The letter calls attention to the RCA process not being familiar to clinicians generally and therefore being in need of explanation, as well as questioning the right of RCA working group members to offer advice about an area of practice outside of their technical expertise. The information provided by external experts whom the RCA team consulted was seen to have no credibility because its source(s) could not be identified.

6 DISCUSSION

The way that RCAs have been introduced to NSW health care organisations signals that policy makers want to encourage local investigations of serious events. Particularly the way that RCAs bring people together from a range of disciplines into a situation where they can each contribute their expertise and views shows that policy makers see benefit in multi-disciplinary approaches to clinical problem-solving and relevant forms of clinical-organisation learning (Iedema, Braithwaite et al., in press). While the cut-off point between blameworthy and non-blameworthy behaviours remains difficult to identify (with the authority of RCA working parties therefore remaining contingent upon legal and personalising definitions of clinical error), the fact that RCAs institute relationships among clinicians across clinical silos in hospitals is a very positive sign. We found however that the success any RCA investigation and its recommendations remains conditional on the inter-personal, political and organisational acumen of the convenor, on the willingness and ability of working party members and investigated clinicians to share power, and on management's ability to absorb the implications of these 'horizontal' relationships and their innovative ways of resolving and reporting on systemic problems.

Admittedly, the RCA is but one example of how contemporary health care is moving towards 'horizontal' and multi-disciplinary kinds of communication, negotiation and design of care approaches. That said, and as we found when considering other facets of health care reform, it appears that good RCAs are those which are able to perturb the boundaries of what is acceptable without lapsing into conflict. For this to occur, we concluded, clinicians involved in RCAs need to be interpersonally competent, and skilled organisational players. It is these people's practical knowledge that ensures that RCAs can avoid the rocks and shoals of confrontation and undue compromise, and become opportunities for communication, learning and change.

As far as our study was concerned, the challenge for any RCA turned out to be that the players who were successful were also pragmatic, and compromising in their approach to RCA working party member selection, the depth and dynamics of RCA interviews and questioning, and the depth and tenor of their recommendations. The practical familiarity that these players had with their organization translated into delicate trade-offs and strategic targets set in advance of any formal outcome. In this context, their approach to 'establishing what happened' is a complex mixture of attempting to achieve morally-defensible trade-offs between the constraints of everyday working life and people's responsibilities.

7 CONCLUSION

Our study into lessons learned from doing RCAs revealed a number of benefits but also a number of tensions that were not touched on in the procedural documentations provided to those newly initiated into the process. Only if RCAs are coordinated skilfully by a knowledgeable team leader is organisational and clinical learning likely to take place on the part of the RCA team itself and potentially among clinicians originally involved in the critical incident. Only if line managerial responsibilities are able to absorb the new tasks arising from RCA recommendations and capitalise on the innovative nature of the RCA process, will RCAs benefit the organisation in a sustainable way. Our study was fortunate enough to be confronted with a very skilfully coordinated and managed set of RCA investigations, and provided hope with regards to their potential for practice improvement.

8 REFERENCES

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