

# Centre Projects

## A RESEARCH PROGRAM WITH THE CLINICAL EXCELLENCE COMMISSION, NSW TO PROSPECTIVELY STUDY THE COMMISSION'S PROGRAMS TO IMPROVE THE SAFETY AND QUALITY OF HEALTH CARE IN NEW SOUTH WALES: 2006 - 2007

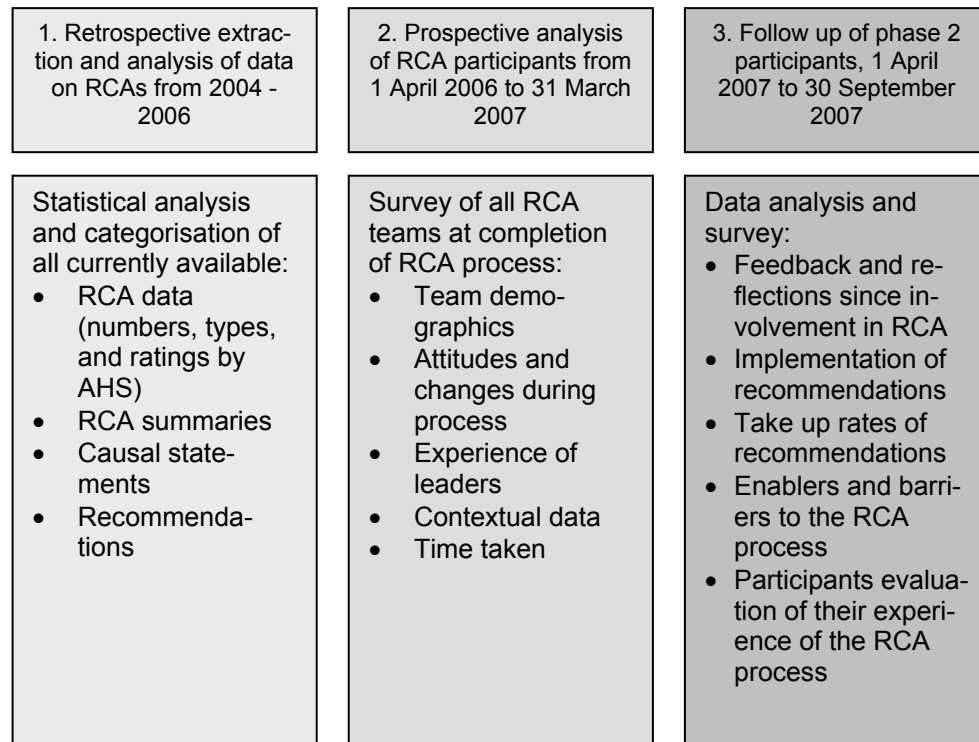
**Funding Source:** Clinical Excellence Commission, NSW

**Investigators:** Jeffrey Braithwaite, Rick Iedema, Mary Westbrook, Joanne Travaglia, Johanna Westbrook, Peter Nugus, Christine Jorm

**Duration:** 2006-2007

**Description:** In this phase of the CEC research program we will examine the impact of the root cause analysis (RCA) process, at macro (systems), meso (organisation) and micro (team and individual) levels. The framework will be implemented using a multi-method approach, centred on three major studies. The studies will be preceded by a literature review of the available evidence on RCAs. Diagrammed, the research framework looks like this (Figure 2):

### 2. A framework for the CEC research project 2006-2007



# Centre Projects

The four studies will be conducted sequentially. The research will be executed as follows:

## **Study 1: Review of the RCA literature**

The aim of this review is to assemble and analyse the available national and international literature on the use and impact of root cause analyses in health services, and relevant industries. In order to do this we will systematically review the safety and quality literature, and develop screening criteria for its assessment, as per the Centre's standard procedure. Special consideration will be given to identifying what the literature states on: differences in the RCA process (including expert versus general teams); RCAs versus alternative forms of incident analysis; and the contribution of and barriers to RCAs to enhancing systems of work in the health services.

The resultant collection of abstracts, articles and reports will be imported into Leximancer, a data analysis package, and diagram and report on the key themes in RCA research will be produced. This will be complementary to a more in-depth review of key literature.

## **Study 2: Retrospective extraction and analysis of RCA data**

The focus of this study is to conduct a retrospective extraction and statistical analysis of RCA data in NSW health services. The aim is to examine the available data produced by RCAs in NSW since inception of the program in 2004, and to review processes for the collection of RCA data at AHS level. Data will be collected directly from the Incident Information Management System, as well as from NSW Department of Health reports on incidents and adverse events and from NSW Area Health Service (AHS) reports on incidents and adverse events.

From available data we will analyse and compare, by AHS, for the period 2004 – 2006: Numbers, types, and ratings of RCAs and their trigger incidents; Numbers, types, and ratings of RCAs and their trigger incidents; RCA summaries, including level of detail and reporting narratives; RCA causal statements, including level of detail and reporting narratives; RCA recommendations including types produced and implementation; and quality of RCA outcomes.

# Centre Projects

## **Study 3: Prospective analysis of RCA teams**

This study will prospectively examine the experience of members of RCA teams, over a period of one year, from 1 April 2006 to 31 March 2007. No comparative national or international study of this type currently exists. The study will be conducted via on-line survey. At the completion of each RCA process around NSW, teams involved will be asked about: contextual data for the RCA process; RCA team demographics; time taken to participate in an RCA; RCA process, including perceptions of the efficiency and quality of the process; attitudes and changes during process, including inter-professional learning; the emotional impact of RCAs on participant; and the role of consumers.

The analysis of the experiences of RCA teams and processes will provide qualitative and quantitative data about the perspectives and experiences of participants who have recently been involved in an RCA process. The survey will ask participants to reflect on the RCA process, as a technical, team and inter-personal process, and to provide their viewpoint on the cost-benefit of participating in the process. These answers will be crucial for determining ways of promoting sustainability of RCA processes, and improving them over time.

## **Study 4: One year follow up of RCA teams and processes**

This final study will follow up the participants in study three. Again, no comparable national or international study could be identified. The follow up study will be conducted from 1 April 2007 to 30 September 2007, and will also utilise an online survey. The survey will examine participants' perceptions about: their experience of the RCA process; whether their attitude to the RCA process had changed since its conclusion; if and how the RCA recommendations were implemented; the value of RCAs; strength and weaknesses of the RCA process; enablers and barriers to the RCA process; RCAs as multidisciplinary learning sites and processes; and intended and unintended consequences of the RCA process.

The follow up of participants in RCA process will provide unique insights into participants' perceptions both of the process itself, and of its medium term impact. We will also be able to compare early perspectives with changes in viewpoint over time.