STAFF SURVEY ON PATIENT SAFETY

Government of South Australia

SA Health

SOUTH AUSTRALIAN COUNCIL FOR SAFETY AND QUALITY IN HEALTH CARE AND SOUTH AUSTRALIAN DEPARTMENT OF HEALTH

Results of a Survey designed by Communio and the Centre for Clinical Governance Research in Health for and with the South Australian health system

CONTENTS

1   ABBREVIATIONS AND DEFINITIONS

1.1   Abbreviations

ANOVA	Analysis of Variance
CAMHS	Child and Adolescent Mental Health Service
CNAHS	Central Northern Area Health Service
Communio	Communio Pty Ltd
Council	The South Australian Council for Safety and Quality in Health Care
CCGR	Centre for Clinical Governance Research in Health at University of NSW
CYWHS	Children's Youth and Women's Health Service
DASSA	Drug and Alcohol Services South Australia
Department	The South Australian Department of Health
FMC	Flinders Medical Centre
QI	Quality Improvement
RDNS	Royal District Nursing Service
SA	South Australia (South Australian)
SAAS	South Australian Ambulance Service
SAHS	Southern Area Health Service
SAQ	Safety Attitudes Questionnaire
SCS	Safety Climate Survey
WCH	Women's and Children's Hospital

1.2   Definitions

Adverse event	An event or omission which arises during clinical care and causes physical or psychological harm to a patient
Change	The capacity and actuality of adapting longitudinally to altered circumstances
Clinical incident	Any care which is not consistent with the routine care of the patient or the routine operation of the institution. A clinical incident can be an adverse event (where a patient is harmed) or a near miss (where serious harm could have occurred, but was avoided)
Clinical practice improvement	A combination of tools, techniques, skills and attributes designed to enhance care inputs, structures, cultures, processes, outputs or outcomes
Collaboration	An interactive, team or inter-professional orientation to building relationships or executing work
Culture	The configuration of attitudes, values, beliefs and meanings 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 a performance or process

Error	An error is the failure of a planned action to be completed, or the use of a wrong plan to achieve an aim
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
Health services research	The systematic examination of health care settings, institutions or organisations including quality, safety, structures, politics, cultures, financing, resource allocation and delivery systems
Human factors	The sum of individual characteristics, personality, learning and behaviour
Innovation	The rate, propensity, capacity and effectiveness in adopting new ideas, practices or behaviours
Near miss (error)	A near miss can be a 'true near miss' (where no harm was caused because the error was rectified before the error caused harm to a patient) or a 'no harm event' (where the harm was avoided by chance rather than intervention)
Organisational change	Macro (organisational-wide), meso (divisional or departmental) or micro (small-scale) adaptations and adjustments to institutionalised processes, procedures, structures and strategies
Organisational culture	The collective set of relationships in organisations describing 'the way we do things around here'
Organisational sub-cultures	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
Quality	Can be conceptualised implicitly or explicitly. Implicit conceptualisations include: (1) the adequacy of the process, (2) the nature of the outcome, (3) the relationship between process and outcome and acceptability of overall activity. Explicit conceptualisations include: (4) statistical ratings of outcome events (such as morbidity or death) or (5) panel scrutiny of proposed procedures for particular treatments. Most commentators suggest that the quality outcome should reflect consistency with expectations and the perceptions of the consumer
Patient safety	A whole system approach to the minimisation of harm affecting patients, clinicians and management extending the idea of 'clinical risk management'
Root Cause Analysis	A structured process for identifying the cause or contributing factors underlying adverse events or other critical incidents
Safety culture	Safety culture is the sum total of attitudes, values, beliefs, competencies, practices and behaviours determining the organisational and institutional capacity to minimise harm
Scientific method	A structured approach to enquiry which aims at causal explanations by generating theories, formulating testable hypotheses, and subjecting these to rigorous testing via empirical studies
Social systems	Two or more social factors interacting within a bounded environment
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

2.1   Background

In this project we examined patient safety attitudes of half the staff in the South Australian health system, capturing the views of 16,619 respondents, a 51.94% response rate.[i] The survey sample includes:

- 3,509 Administration/Clerical staff (21.1% of the total)

- 1,069 Medical staff (6.4%)

- 6,473 Nursing/Midwifery staff (38.7%)

- 1,602 Allied Health Staff (9.6%) and

- 3,966 other categories of staff (23.9%).

We conducted the survey based on the Safety Attitudes Questionnaire (SAQ), modified to meet specified South Australian needs, particularly the desire to canvass the views of three health care staff streams; those involved in direct care of patients, those providing indirect care eg administrative and support staff; and those working in the Central Office of the health system.

The SAQ measures six factors which are both valid and reliable indicators of attitudes and conditions known to affect patient safety; the perceived **Teamwork Climate** and **Safety Climate** of health workplaces; **Job Satisfaction** of health care staff, **Perception of Management** and **Working Conditions**; and their recognition of the effects of stress on work performance (**Stress Recognition**). Staff were also asked to write their suggestions for improving patient safety, which were collated.

Demographic data were gathered including each respondent's profession or occupation, primary work area (eg paediatrics, psychiatry), health region or service, and facility within that region. The dataset was subjected to extensive analysis and the relation of these variables to patterns of SAQ scores was explored extensively. Additionally results from overseas studies using the SAQ were used to benchmark the findings about the South Australian health system.

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[i] Adjusted for leave and other absences.

Universally studies have shown that patient safety is a challenge to health systems, but progress is often hampered by a lack of information, particularly systems-wide data concerning staff attitudes, work experiences and suggestions for improvement. Furthermore there are little data available against which to assess the effects of change and interventions. This project sought to rectify this deficit in South Australia.

2.2 Results and discussion

Scores on the SAQ factors range from a possible 1 (very unfavourable judgement) to 5 (very favourable assessment). For the total survey population all mean SAQ scores were in the second highest of the four score bands, 3.99-3.00, which indicates somewhat to slight agreement. Job Satisfaction had the highest average score (3.90), followed Safety Climate (3.88), Team Climate (3.82), Stress Recognition (3.67), Working Conditions (3.49) and Perception of Management (3.44).

Overall this is encouraging, and shows that staff generally have positive attitudes regarding issues conducive to patient safety. These results also indicate there is scope for improvement.

Chart 1: Number of times in six benchmarking comparisons that South Australian and international groups had higher scores on SAQ factors
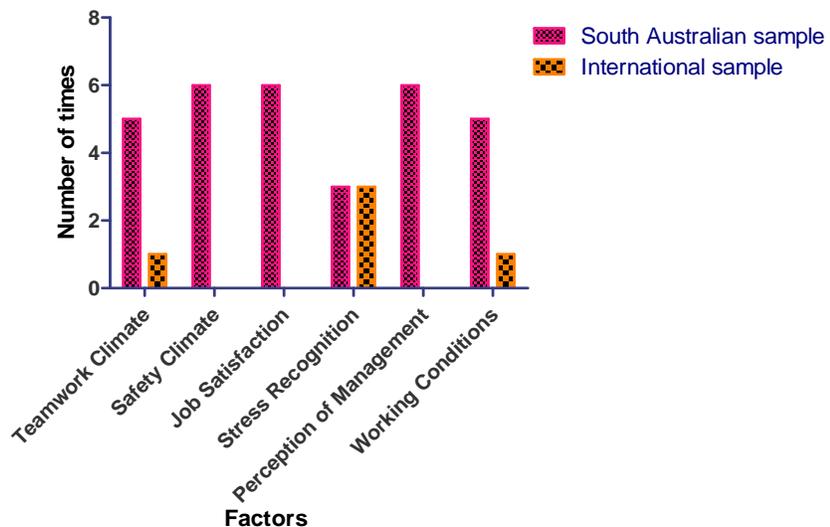
In the benchmarking component of the study we compared groups of South Australian respondents with equivalent samples from Sexton and Helmreich's research in the United Kingdom, New Zealand and the United States of America. Respondent groups investigated were ward, ambulatory care, operating theatre and ICU staff. Notably, these groups did not have the most positive workplaces in the South Australian data sets. Nevertheless these South Australians performed favourably against their international counterparts. Chart 1 summarises these findings, showing that the corresponding South Australian sample had higher scores on SAQ factors in more instances than their international counterparts. In effect we compared the number of times that the South Australian wards, ambulatory care, operating theatre and ICU settings had more favourable attitudes than their international counterparts.

The indications are, therefore, that the South Australian health system is doing relatively well in addressing patient safety. This provides sufficient evidence for us to suggest that South Australia is on the right track in its quest to tackle patient safety, but there is room for improvement, and further work to be done.

We have brought some of the results together in selected charts as a way of synthesising the dataset. Chart 2 compares the SAQ scores of direct and indirect care staff.

Chart 2: SAQ factor scores of health stream membership
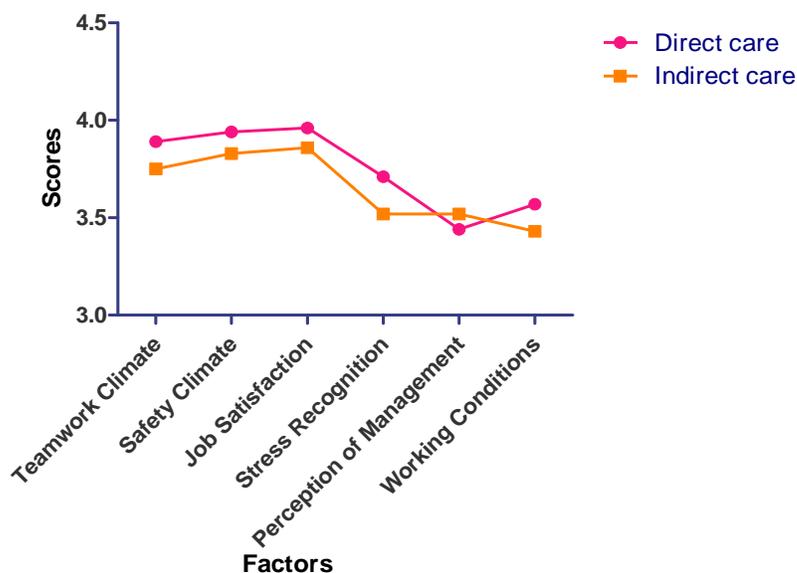
The data show that direct care providers had, with one exception (Perception of Management), higher scores on all scales than their indirect care counterparts; indirect care staff had more positive attitudes toward management than direct care staff.

Attitudes of the various professional and occupational groups showed a number of differences. Chart 3 compares the SAQ scores of the four largest health professional groups, viz, doctors, nurses/midwives, allied health and administration/clerical staff.

Chart 3: SAQ factor scores of professions from all provider streams
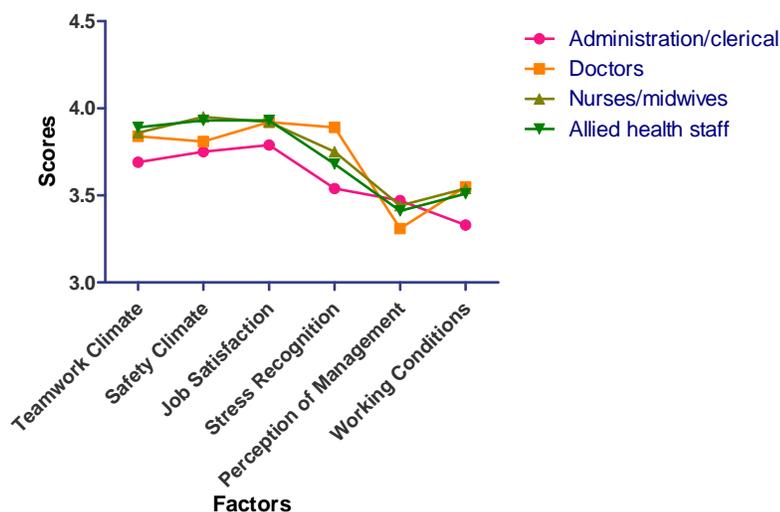
professions. Doctors, nurses/midwives and allied health professionals had similar scores on Teamwork Climate, Job Satisfaction and Working Conditions. Doctors were not as positive on Safety Climate as nurses/midwives and allied health staff. Doctors' Stress Recognition scores were higher than those of nurses/midwives whose scores were higher than those of allied health.

Some SA primary work areas, health regions and facilities in regions were identified as performing better or less well in terms of their SAQ score profile. Positive results were found particularly in terms of the Teamwork Climate, Safety Climate and Job Satisfaction scores with average scores of 4 or over occurring (4-5 is the highest SAQ score band). The primary workplaces of Rehabilitation, Primary and Community Health Care and clients' homes had mean scores of 4 or over on these scales and Child and Adolescent Mental Health and health/medical clinics had scores over 4 on Safety Climate and Job Satisfaction.

Among the services and regions RDNS had the highest ratings on most SAQ factors for both its direct care (four factors) and indirect care staff (five factors). Among direct care providers, RDNS and Country Health SA recorded mean Safety Climate scores of over 4; SAAS recorded the highest Job Satisfaction score and CYWHS the highest Stress Recognition score. No group of indirect care staff within the regions had mean scores in the 4-5 range in any health service or region (see section 5).

When the regions and services were examined in terms of the SAQ scores of direct care staff in the individual facilities it became apparent that in over half, the mean Safety Climate and Job Satisfaction scores were 4 or more and almost half of the Teamwork Climate scores reached this level. Services and regions with larger proportions of facilities with these higher score patterns were RDNS, SAAS and SAHS followed by CNAHS and Country Health SA and then CYWHS.

SAQ factor scores by health service and region show that in the case of direct care staff, attitudes were generally positive. They cluster quite closely, following a similar pattern (chart 4). With some limited exceptions, SAQ indirect staff scores in health services and regions also exhibited somewhat favourable attitudes. Chart 5 summarises this information.

Chart 4: SAQ factor scores of Health Services and Regions - direct care
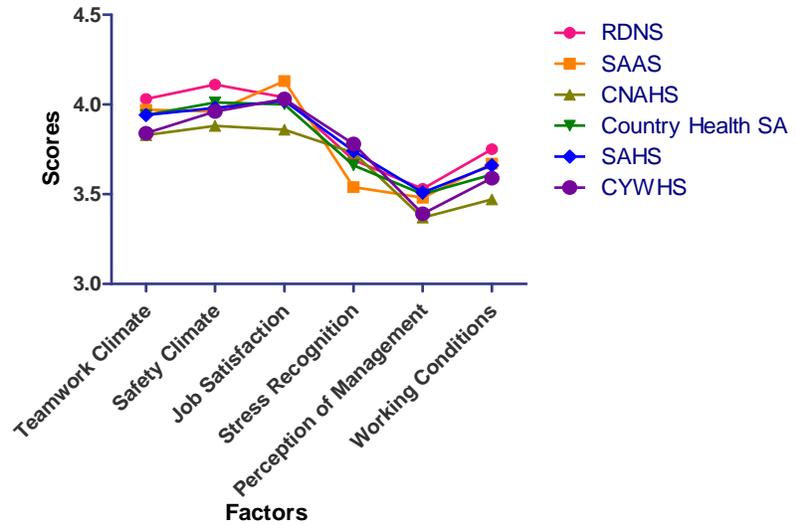
Chart 5: SAQ factor scores of Health Services and Regions - indirect care
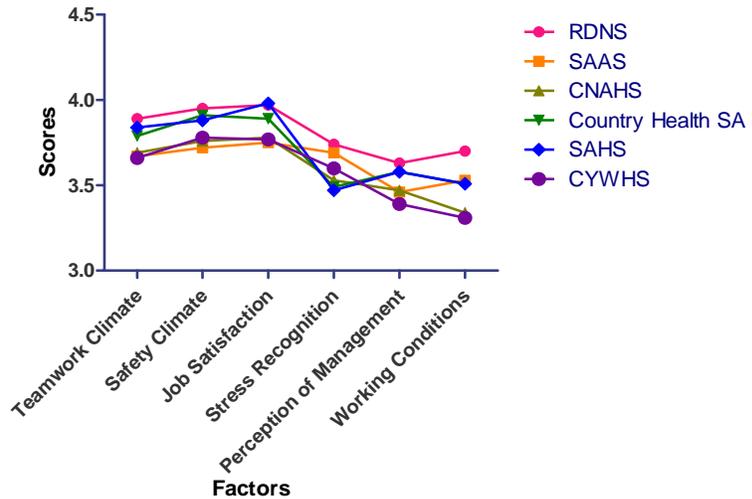
Eliciting staff suggestions about ways of improving patient safety was an important item in the survey. We reviewed more than 20,000 recommendations from all respondents, with almost half the sample contributing answers and conducted detailed content analysis of a random sample of 10%, or over 2,000 responses. Chart 6 shows the categories of responses and percentage of suggestions from the three staff groups. Staffing (skillmix, levels, quality and conditions) was considered the most important issue. Such suggestions should inform future policy initiatives and their implementation.

Chart 6: Percentage of staff suggestions for improving patient safety by provider group
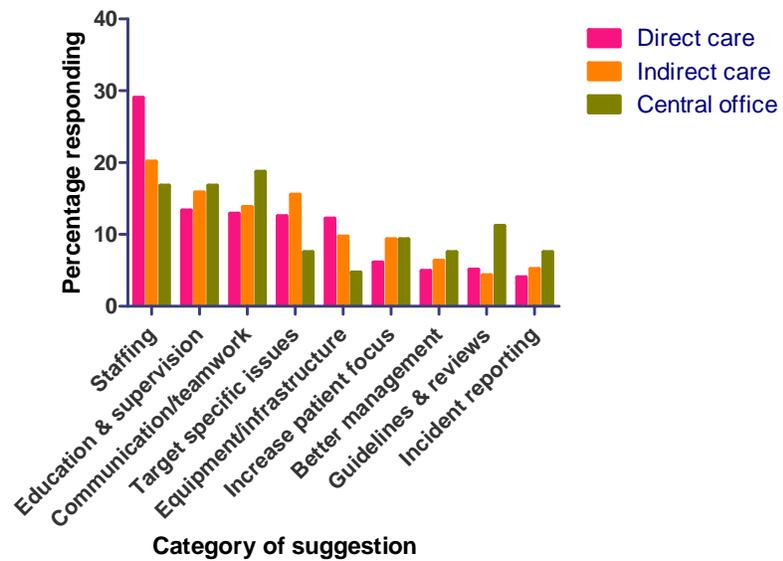
2.3   Recommendations

From the analysis summarised above, provided in more detail in later sections and the appendices, we have developed a series of recommendations. They cover a range of initiatives, many of which are being addressed in South Australia.

Teamwork Climate

R1. Review intervention strategies for further improving teamwork. Many staff recognise the importance of good teamwork. The third most frequent suggestion for improving patient safety made by staff was to improve communication and teamwork. Thus many should be most receptive to interventions aimed at achieving better teamwork. In developing intervention strategies reference should be made to research findings in the area of inter-professional learning. There should also be a recognition of research into differences in the attitudes of the various health professional groups which indicate that some professions are more receptive to teamwork and that different approaches to encouraging teamwork may be more effective with some professional groups than others. Interventions will need to be tailored to the profession, workplace and facility involved.

R2. Take action to improve the Teamwork Climate in work areas and facilities identified in the survey as having less positive Teamwork Climates. This could follow from investigation and identification of the qualities and practice that contribute to good teamwork amongst staff in work areas and facilities with higher Teamwork Climate scores.

Safety Climate

R3. Identify areas and facilities with less positive Safety Climate scores, investigate possible reasons for such ratings and design appropriate interventions bearing in mind practices in similar types of facilities within the health system which have higher Safety Climate scores.

R4. Implement safety improvement education programs for staff. These should be based on past programs in safety education which have been found to change and consolidate safety practices over time. Such courses should emphasise some safety practices which staff attach less importance to. When staff were requested to make suggestions for improving patient safety the two categories attracting the fewest responses were implementing guidelines, reviews and audits and improving incident reporting. While a greater proportion of Central Office staff advocated these strategies they were still relatively low in their hierarchy of suggestions.

R5. Examine opportunities to improve staff access to safety education initiatives. The second most frequent suggestion made by staff was for more education (particularly in-service courses). Thus staff should be very receptive to the implementation of courses aimed at improving patient safety.

R6. Monitor the effects of safety initiatives at health area and facility levels over time. In areas where these are less encouraging determine and remedy contributing causes eg practices of management, infrastructure problems.

R7. Review orientation processes for new staff.

Job Satisfaction

R8. Work with areas, facilities and professional groups with less favourable staff turnover and sick-leave against other indices of staff satisfaction. For most staff groups Job Satisfaction was relatively high and compared well with overseas levels in the benchmarking studies. It seems likely that improvements to staff's assessment of their Working Conditions and Perceptions of Management would further impact positively on Job Satisfaction scores.

R9. Take action to improve Job Satisfaction in areas with less favourable satisfaction scores. Most suggestions in this area focus on removing negative experiences that may decrease Job Satisfaction but increasing positive work experiences is also important. It was apparent from the number and type of suggestions made by staff about increasing patient focus in health care work that this is seen as an important and satisfying aspect of their work but issues at work eg staff shortages and excessive paper work constrain staff from providing the type and degree of patient care they consider to be desirable.

Stress Recognition

R10. Identify and implement appropriate system-wide education programs to assist staff in addressing stressful situations. Such programs should present research findings of the effects of stressors (eg long hours, frequent interruptions) on error rates. The acceptability of acknowledging the effects of stressors and strategies that can be deployed to reduce its harmful effects should to be explored. Such education needs to be tailored to the needs of both staff both lower and higher in organisational hierarchies. Policy and improvement initiatives from management can, by the practices they introduce and support, considerably reduce errors due to stress.

R11. Further investigate workplaces attracting high Stress Recognition scores to determine what if any intervention strategies may be needed. When assessing Stress Recognition a holistic assessment of the work place bearing in mind the type of work conducted there and the overall pattern of SAQ scores of its staff is desirable. High Stress Recognition scores in a facility with relatively high scores on other SAQ factors may indicate staff who are coping relatively well with stressors compared to a facility with high Stress Recognition scores and low scores on other factors. Consultation with staff in such a facility or profession would help identify problems contributing to high scores and should suggest strategies for reducing stress.

Perception of Management

R12. Take action to improve communication and access to management in areas and facilities with less favourable Perception of Management scores. Respondents' Perception of Management as canvassed in this scale may have referred to management in their facility, their health area or service and/or Central Office of the Department of Health and the focus no doubt varied according to respondent. From the suggestions staff made for improving patient safety, it is clear that their major preferences are for management to be accessible, to listen to problems, to support staff initiatives and to tackle problems eg managing poorly performing staff and handling staff conflict. Staff look to managers to provide leadership and vision.

R13. Increase feedback to staff. Review mechanisms for management of staff performance eg the management of a complaint or concern about a clinician. Provide feedback to staff following their notification of adverse events. Increase the range of avenues for communication between management and staff within health regions and services eg emails, newsletters, presentations, discussion forums, particularly in areas with few such mechanisms.

R14. Identify areas and facilities attracting very good or less favourable ratings on the Perception of Management scores to determine lessons learned and opportunities for improvement.

R15. Review opportunities for targeted training to senior staff in leadership and management. According to staff suggestions some managers are perceived as requiring managerial training. In-service education courses aimed at enhancing managerial skills could include ways to improve governance and communication, promote the vision and goals of the health system and facility and handle conflict situations.

Working Conditions

R16. Further investigate areas, facilities and professional groups with less favourable Working Conditions scores to identify areas/groups requiring follow up. .Some attracted relatively low ratings of Working Conditions, ranged from 4.38 to 2.83 throughout the health system. While staff suggestions on improving patient safety identified deficiencies in Working Conditions related to staffing and poor infrastructure and equipment there may be other Working Conditions issues which were not seen as related to patient safety hence not mentioned by respondents. These warrant investigation.

2.4   Concluding remarks

With the completion of this project South Australia has information about its staff's attitudes toward patient safety compared with international counterparts, a large database of staff attitudes and experiences relevant to patient safety and an extensive catalogue of suggestions from staff for improving patient safety. This information provides a platform for understanding where attention is needed, where positive and less positive attitudes lie, and what needs to be done to support patient safety in the future. The information in this report and the dataset will shape future policy and managerial activities.

3   BACKGROUND

3.1   Introduction

The South Australian Department of Health (the Department) and the South Australian Council for Safety and Quality in Health Care (the Council) are committed to the safety of patients and making continuous improvements in patient safety outcomes. Staff attitudes toward patient safety and the safety climates of health care facilities are fundamental elements in achieving such goals. It is therefore necessary to understand staff attitudes on patient safety and their perceptions of the safety factors operating in their work environments.

Currently there is no such systematic information about health care staff safety attitudes and climates available in South Australia (SA). Internationally, while there are many efforts to canvass staff about patient safety,[1] [2] few health systems have conducted a system-wide survey.

In 2008 as part of its commitment to improving patient safety, the Council sponsored a survey of SA health care staff attitudes toward patient safety in their state. An objective of the survey was to measure the patient safety culture of the South Australian health system in order to provide a baseline against which future findings and the effects of various safety interventions could be assessed. The survey aimed to identify priority areas for behavioural and structural improvements in the system as a whole and in various parts of the system.[3] [4] This report documents the survey conducted by Communio Pty Ltd (Communio) in conjunction with the Centre for Clinical Governance Research (CCGR) at the University of New South Wales on behalf of the Council and Department.

3.2   The project

The survey's purpose was to assess SA health care staff current attitudes toward factors in their workplace that are known to contribute to patient safety such as collaboration and communication between staff, organisational commitment to safety, attitudes toward errors, job satisfaction and effectiveness of management. The survey aimed to identify effective and problem areas in daily operations, other aspects of satisfaction and dissatisfaction with patient safety and the specific problems and successes of various occupational groups in SA Health. It also canvassed personal recommendations from staff as to how patient safety could be improved.

This provision of information about safety attitudes is of considerable strategic importance for SA Health. As baseline data on safety and quality are lacking, at the present time the tools are not available by which to assess whether SA Health's current initiatives are meeting an evidentiary test of whether, and the extent to which, the right things are being done to make safety and quality better, and what more needs to be done and where. Progress is hampered by this lack of information.

4   METHOD

4.1   Development of the Survey Protocol

A *Survey Protocol*[5] outlined the way it was proposed to proceed with the administration and analysis of the Safety Attitudes Scale (SAQ).[ii] This questionnaire is based on the work of Sexton and Helmreich et al.[6-8] This questionnaire tool was adapted for use in the survey. Ethics committee approval was sought.[9] The Human Research Ethics Committee approved the project on 24 July 2008.[10]

4.2   The survey process

The survey process had three delineated phases which were carried out between February 2008 and February 2009. The core tasks are detailed further in the Project Gantt Chart.[11] Diagrammed, the survey process looks like this (figure 1).

Figure 1: The survey process

Part 1: Preparation phase, March – September, 2008	Part 2: Administration phase September – December, 2008	Part 3: Reporting phase January – February, 2009
Core tasks ▪ Set up project management teams with Departmental, Communio and CCGR representatives ▪ Establish project steering groups (Project Reference Group, Project Control Group, Project Steering Committee) ▪ Agree final design of survey protocol and questionnaire ▪ Secure approval of the Project Steering Committee to proceed ▪ Secure ethics approval ▪ Liaise with staff on-the-ground to assist with administration	**Core tasks** ▪ Complete administration design ▪ Secure accurate lists of staff ▪ Develop and action communication plan ▪ Administer questionnaires to three populations: Direct and Indirect Patient Care Providers and Central Office staff ▪ Send returned questionnaires for processing ▪ Conduct data entry, data processing, and information quality checking ▪ Receive data files ready for analysis and reporting	**Core tasks** ▪ Analyse data ▪ Confirm reporting structure ▪ Draft report ▪ Circulate release draft of report for comments ▪ Update report in the light of input ▪ Finalise report ▪ Complete project ▪ Prepare documentation for the next survey ▪ Evaluate survey process ▪ Document main learning points

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[ii] The *Survey Protocol* was designed to meet the needs of SA and drew on developmental work conducted by Professor Jeffrey Braithwaite, Associate Professor Mary Westbrook and CCGR staff in conjunction with various health professional bodies and staff from 2003 to 2007, drawing on Sexton and Helmreich's work. The developmental work, 2003-2007, owes a debt to a range of individuals in Australia including Ms Maureen Robinson, Ms Sarah Michael, Ms Kathleen Ryan, Ms Michelle Wensley and Ms Jo Montgomery; and academic expertise and input from Professor Johanna Westbrook, Ms Nadine Mallock and Ms Nerida Creswick. The South Australian version of both the Survey Protocol and the survey instrument received generous input from staff, particularly Mr Phil Robinson, Dr John Brayley, Ms Christy Pirone, Ms Debra Petrys, Ms Tiffany Gill, Ms Rachel Strauss, Mr Patrick Smith and Ms Stephanie Newell.

The proposal was accepted that the survey be conducted as a census. All staff involved in direct or indirect care of patients including those working in Central Office of the Department were invited to participate. The benefit of a census is to achieve the highest possible response rates across the entire staff groups surveyed. A census approach had the advantages of securing a scientific sample, and of providing all staff with an opportunity to record their views and to provide free-text recommendations if they wish. This removed the difficulties associated with solely using a randomised, stratified sample across the heath system, and failing thereby to involve a majority of staff in multiple workgroups in the survey.

The census was undertaken between 24 November and 7 December 2008, leaving the survey open for a sufficiently long period to maximise opportunities to engage staff on rosters, days off and annual leave. It was widely advertised and staff throughout the health system assisted in publicising it, and participated by completing survey questionnaire forms. Staff were advised that a high level of participation was being sought as this would result in better information to guide safety improvement strategies across SA Health.

It is envisaged that SA will repeat this survey at regular intervals, and be able thereby to track longitudinal trends in attitudes toward safety. This is part of the Department's ambitions to have a strong safety culture and to monitor changes in safety culture across time. It is also a core component in understanding whether initiatives of staff and management are helping make patient care in SA safer and better.

4.3   The survey questionnaire

4.3.1. *History and content of the SAQ.* The questionnaire has been described by its designers as eliciting a snapshot of the safety climate of a health facility through surveying its staff (Sexton, Helmreich et al, 2006).[8] The SAQ had its origins in a questionnaire used in commercial aviation, the Flight Management Attitudes Questionnaire. The FMAQ "was created after researchers found that most airline accidents were due to breakdowns in interpersonal aspects of crew performance such as teamwork, speaking up, leadership, communication and collaborative decision making" (Sexton, Helmreich et al, 2006, p.3).[8] An Intensive Care Unit Management Questionnaire was derived from the FMAQ and this was further refined into the SAQ which has more general applicability across health settings.

The SAQ has been demonstrated to have sound psychometric properties of reliability and validity and the six factor model of safety themes it measures has been supported by confirmatory factor analyses.[8] Results obtained from the administration of the original questionnaire in 203 health sites have been published[8] and can serve as benchmarking data.

The SAQ now has 60 items from which six factor scores are derived. Only 30 of the items are utilised in the calculation of the factor scores, Definitions and examples of items contributing to the six factor scores are shown in table 1. Responses to the SAQ attitude items are made on 5-point scales ranging from "Disagree strongly" (scored 1) through to "Disagree slightly" (2), "Neutral" (3), "Agree slightly" (4) to "Agree strongly" (5). The SAQ concludes by asking respondents to write brief answers to the question "What are your top three recommendations for improving patient safety?"

The questionnaire was modified for use in Australia by CCGR.[12] Collaborative project committees with representatives of the Council, Department, the health system, Communio and CCGR further modified the tool to meet the needs of the SA health system.

Table 1: Definition of SAQ factors and examples of items contributing to factor scores

Factor definitions	Examples of items in the SAQ contributing to factor scores
Teamwork climate: Perceived quality of collaboration between personnel	▪ I have the support I need from other personnel to care for patients/clients ▪ The staff in my area work as a well-coordinated team
Safety climate: Perceptions of a strong and proactive organisational commitment to safety	▪ I would feel safe being treated here as a patient/client ▪ I am encouraged by my colleagues to report any patient/client safety concerns I may have
Job satisfaction: Positive feelings about work experience	▪ My health service is a good place to work ▪ I am proud to work here
Stress recognition: Acknowledgement of how performance is influenced by stressors	▪ Fatigue impairs my performance during emergency situations ▪ I am more likely to make errors in tense or hostile situations
Perception of management: Approval of managerial action	▪ My administration supports my daily efforts ▪ The levels of staffing in my area are sufficient to handle the number of patients/clients
Working conditions: Perceived quality of the work environment and logistical support (staffing, equipment etc)	▪ This health service does a good job training new personnel ▪ All the necessary information for diagnostic and therapeutic decisions is routinely available to clinical staff

Source: from Sexton, Helmreich et al (2006);[8] see also Sexton and Thomas (2003)[13]

4.3.2. *SA survey modifications of the SAQ.* In the SA survey three streams of health care staff were involved. Differences in their work roles necessitated the development of the three forms of the questionnaire listed in table 2. Copies of the three survey questionnaires are contained in appendix 1. The main, and relatively slight, difference between the three forms was in the wording of some of the SAQ attitudes items which was made appropriate to respondents' work roles and locations. Thus while an item in the Direct Care form might refer to "my clinical area", the Indirect Care form could refer to "my area" or "my health service" and the Central Office form might refer to "the health system".

Therefore a degree of caution needs to be exercised when comparing some of the results from the three groups of health care staff particularly when comparing responses from Central Office staff with those working in direct and indirect care locations. If the latter had been asked a question about the "health system" as opposed to their work area their answers could well have been different. Some changes were also made to the wording of SAQ items to take account of local word usage eg the phrase "patients/clients" was substituted for "patients".

Table 2: The three forms of the SAQ used in the SA survey

The ***Direct Patient Care Survey Form*** (the clinical form) for staff who "have direct responsibility for or interaction with patients – eg clinical staff such as nurses/midwives (including assistants in nursing/midwifery), doctors, allied health, paramedics and some pharmacy and laboratory staff who have direct contact with patients."

The ***Indirect Patient Care Survey Form*** (the non-clinical form) for staff who "don't have direct contact or interaction with patients, but have a responsibility for patient care eg managerial, administrative staff, support staff and staff in units such as laboratories, pathology, pharmacy and ancillary services."

The ***Department of Health Central Office Survey Form*** (the Central Office form) for "Department of Health (Central Office) staff located in the CBD, predominately in Citi Centre but also other locations such as Waymouth and Grenfell Streets."

Table 2 gives the instructions from the questionnaires which enabled staff to choose the questionnaire appropriate to their circumstances. It is important to note that this was a self selection process. It is possible that of two staff members with a slight contact with patients one might consider the Direct Care form appropriate to his or her circumstances while the other would select the Indirect Care form. In the case of Central Office responses the number slightly exceeded the number of staff listed in the Department of Health figures for December 2008. Some respondents seem to have incorrectly selected the Central Office form because they regarded themselves as working there as they work in the CBD eg ambulance officers were overrepresented in the Central Office respondents. The very large nature of the survey sample means that such aberrations would have a relatively minute effect on the overall results.

A further modification made to the SAQ for its use in the SA survey was the development of demographic questions pertinent to the SA health system and the specific aims of the survey. The demographic information collected by the questionnaire is listed in table 3. The precise wording of the demographic questions and the range of optional answers available to respondents can be seen in copies of the three forms of the questionnaires in appendix 1.

Table 3: Demographic information collected by the SA version of the SAQ

- Gender
- Age
- Aboriginality/Torres Strait Islander membership
- First language (English or other)
- Current employment (professional group)
- Organisational role (executive, senior manager, middle manager, line manager, team leader or supervisor, staff member)
- Number of years of experience in current position
- Number of years of experience in current profession
- Number of years of experience in the South Australian Health system
- Area health region or service where work eg Country Health SA, CNAHS, RDNS
- Service or facility where work eg Royal Adelaide Hospital, BreastScreen SA
- Primary work area eg aged care, intensive care, rehabilitation
- Portfolio work for (Central Office staff only) eg Workplace Development, Aboriginal Health

Additionally six questions about patient safety priorities of particular concern to SA Health (items 58-63) were added to the questionnaire and three items of less interest (which do not contribute to SAQ factor scores) were removed, realising a total of 63 items plus the open ended question canvassing suggestions for improving patient safety. The 33 items not utilised in the calculation of SAQ factor scores are also of interest to those involved in improving patient safety. Therefore using the process described in detail in appendix 4 these 33 scores were grouped according to their content and used to derive five subsidiary scores listed in table 4. These subsidiary scores lack the psychometric robustness of the six SAQ factor scores. However they complement the data provided by the factor scores. The items contributing to the scores and the method used in their calculation are reported in appendix 4.

Table 4: Subsidiary scores derived from the SAQ

Safety practices in my workplace: Views on how well patient safety is enabled
Communication: Judgements about the quality of workplace safety communication in the respondent's workplace
Personal knowledge and practices regarding safety: The respondent's knowledge about and actions regarding patient safety
Error reporting culture in my workplace: Assessments of how well error reporting is dealt with
Social support in my workplace: Perceived social cooperation and support

Source: Westbrook and Braithwaite (see appendix 4)

The questionnaire was answered anonymously. An electronic version of the questionnaire which was answered online was available in some locations whereas in others a paper version was used. When the SA Department of Health IT system is overloaded less essential work is not carried out. As a result when some participants pressed the 'save' button after the second, and longer, section of the questionnaire it was not saved. Participants and those conducting the survey were unaware of the problem at the time. Overall 4.6% of survey questionnaires were incompletely saved and these respondents' SAQ scores and suggestions were lost. Additionally some respondents failed to answer every item. If a missed item contributed to an SAQ factor score then the participant's SAQ factor score could not be calculated. Thus numbers responding to the different questions varies slightly. Percentages presented in the report are based on the number of participants who answered each question.

4.4 The survey sample

When questionnaire polling closed 16,619 survey forms had been submitted by SA Health staff. Of these 10,468 were Direct Care forms, 5,115 were Indirect Care forms and 1,037 were Central Office forms. With adjustments for staff on leave or absent for other reasons the total return rate for the survey was calculated to represent 52.8% of the SA health workforce working at the time of the survey. The numbers of responses from facilities throughout the SA health system are given in appendix 3. From the demographic information supplied in the questionnaires and the information available about the SA health workforce it was possible to investigate to some extent whether some professional groups were over or underrepresented in the final sample (See appendix 2). Detailed information about the demographic and work history details of the survey sample are given in section 5 below.

4.5 Data analysis

The number and percentages of respondents giving the various answers to the demographic items were calculated. Responses to the attitude items were expressed on 5-point scales from 1 (Disagree strongly) to 5 (Agree strongly). The responses for the 63 individual SAQ items are shown in appendix 8 for the total survey population and the three groups of health staff.

To calculate respondents' six safety scores (as described in table 1) their scores on the items contributing to each factor were added and then divided by the number of items contributing to the factor. In instances where items contributing to a factor score was negatively worded the item was reverse scored prior to the calculation of the relevant factor scores. For example, an item contributing to the Safety Climate factor score is the statement "In this area it is difficult to discuss errors". When calculating a person's Safety Climate score this item is reverse scored so that respondents who answer 1 (Disagree strongly) are given 5, those who answer 2 (Disagree slightly) are allotted 4 etc.

Details of the items that contribute to each factor score are given in section 5, which reports how various groups in the health system scored on the six factors. Respondents could potentially score from 5 to 1 on a factor score. Scores of over 4 are described as revealing most favourable attitudes. If a group has an average factor score of less than 4 but more than 3 their attitudes are described as somewhat favourable to slightly favourable. A factor score of less than 3 but greater than 2 indicates somewhat unfavourable attitudes. A score of between 2 and 1 reveals very unfavourable attitudes.

This method used to calculate the SAQ factor scores varies slightly from that used by Sexton, Helmreich et al (2006).[8] As described more fully in appendix 5 they follow the steps already described but then convert the factor scores to 100 point scales. It was considered that this makes the factor scores more difficult to comprehend and it is more appropriate to anchor responses to the five point scales. When benchmarking the present survey results against international studies of the SAQ, which are expressed on 100 point scales, we converted the SA scores accordingly (see section 5 and appendix 5). The text responses to the question asking for respondents' own recommendations for improving patient safety were content analysed using a nine category schema shown in table 5 and described in detail in section 5. As content analysis is a very time intensive process a 10% random sample of respondents was selected to have their suggestions content analysed. This provided sufficiently detailed information, as section 5 shows. When a respondent with an incomplete survey (due to the IT problem) was chosen for the random sample the respondent with the next ID number was selected to take their place.

Table 5: Coding categories in content analysis schema of suggestions for improving patient safety

1. Improve incident reporting
2. Increase staff education and supervision
3. Implement guidelines and reviews
4. Better leadership/management
5. Improve staff communication and teamwork
6. Improve staffing and staff conditions
7. Acquire equipment, infrastructure
8. Increase patient focus
9. Target specific issues

5 RESULTS

5.1 Demographics of the survey population

The survey respondents' answers to the introductory items of the survey revealed the demographic profile of the three health care staff groups who participated in the survey. As expected table 6 shows that there were many more female than male respondents. This gender difference was somewhat less pronounced among Central Office staff.

Table 6: Gender of health care staff groups

Gender	Groups of health care staff			
	Direct care	*Indirect care*	*Central Office*	*All respondents*
Male	19.5%	19.0%	31.3%	20.0%
Female	80.5%	81.0%	68.7%	80.0%
Total	100%	100%	100%	100%

Table 7 indicates that among all groups of health care staff the most common age group was 45-59 years, followed by 30-44 years. Indirect care staff tended to be older than providers of direct care and Central Office staff.

Table 7: Age of health care staff groups

Age (years)	Groups of health care staff			
	Direct care	*Indirect care*	*Central Office*	*All respondents*
15-29	15.9%	10.6%	16.4%	14.3%
30-44	35.2%	31.8%	33.8%	34.1%
45-59	43.6%	50.7%	44.3%	45.8%
60+	5.3%	6.9%	5.4%	5.8%
Total	100%	100%	100%	100%

Not surprisingly the work patterns of the three health care groups differed (see table 8). Direct care providers were more likely to have rotating, evening or night work patterns and almost half had a rotating work pattern.

Table 8: Work patterns of health care staff groups

Work pattern	Groups of health care staff			
	Direct care	*Indirect care*	*Central Office*	*All respondents*
Rotating	49.5%	11.7%	0%	35.2%
Days	46.3%	86.9%	100%	61.7%
Evenings	1.2%	1.0%	0%	1.1%
Nights	3.0%	0.3%	0%	2.0%
Total	100%	100%	100%	100%

The employment patterns of the staff groups also varied as shown in table 9. Central Office respondents were most likely to report a full-time employment pattern and direct care providers were least likely to work full-time. Direct care providers were the group most likely to work part-time and Central Office workers were least likely to be employed part-time.

Table 9: Employment patterns of health care staff groups

Employment pattern	Groups of health care staff			
	Direct care	*Indirect care*	*Central Office*	*All respondents*
Full-time	47.4%	62.1%	79.8%	54.0%
Part-time	44.3%	31.0%	15.0%	38.4%
Casual/ Temporary	5.9%	6.7%	4.8%	6.1%
Volunteer*	2.4%	0.1%	0.4%	1.6%
Total	100%	100%	100%	100%

* Most volunteers were part of SAAS's volunteer workforce

Item 5 in the survey asked, "Are you Aboriginal and/or Torres Strait Islander?" Of the total group of respondents 1.2% answered "yes" to this question. The percentage was highest among Central Office staff (2.6%), and lower among direct care providers (1.1%) and indirect care staff (1.3%).

Item 6 in the survey asked, "Is English your first language?" Overall 92.4% of health care staff said that English was their first language. This ranged from 95% of indirect care staff, 93.5% of Central office staff to 91.1% of direct care providers (the group most likely to have a first language other than English).

Item 7 asked respondents "Which profession or occupational group do you identify most closely with?" Table 10 shows the proportions of each staff group that were made up of the various professions and occupations. It shows 56.9% of the direct care group consisted of nurses/midwives, 10.3% of the indirect care group were nurses/midwives and 39.4% of the Central Office group.

Table 10: Professions and occupations: Percentages of health care staff groups made up by the professional and occupational groups

Profession/ Occupation	Groups of health care staff			
	Direct care	*Indirect care*	*Central Office*	*All respondents*
Administration/ Clerical	2.2%	53.9%	53.6%	21.4%
Medical	9.6%	0.8%	3.2%	6.5%
Nursing/ Midwifery	56.9%	10.3%	7.2%	39.4%
Allied health: Therapy	10.1%	2.0%	2.6%	7.2%
Allied health: diagnostic/technical	2.5%	2.8%	2.3%	2.6%
Ambulance/ Paramedic	5.6%	0.4%	4.0%	3.9%
Scientific/ Research	0.5%	3.3%	5.0%	1.6%
Pharmacy	1.0%	1.3%	0.8%	1.1%
Direct care worker (aged care)	4.0%	0.4%	0%	2.6%
Dentist	1.2%	0.4%	0%	0.9%
Other health worker	4.7%	6.7%	5.5%	5.4%
Other staff	1.6%	17.6%	15.8%	7.4%
Total	100%	100%	100%	100%

These data can also be considered in terms of the proportions of each professional group in the three strands as shown below in table 11. Here it is apparent that of the nurses and midwives surveyed in the SA health system, 90.8% work in direct care, 8.1% in indirect care and 1.2% in Central Office.

Table 11: Professions and occupations: Percentages of the professions and occupations working in the health care staff groups

Profession/ Occupation	Groups of health care staff			
	Direct care	*Indirect care*	*Central Office*	*Total*
Administration/ Clerical	6.6%	77.6%	15.8%	100%
Medical	93.1%	3.8%	3.1%	100%
Nursing/ Midwifery	90.8%	8.1%	1.2%	100%
Allied health: Therapy	88.9%	8.8%	2.3%	100%
Allied health: diagnostic/technical	60.8%	33.6%	5.6%	100%
Ambulance/ Paramedic	90.4%	3.3%	6.4%	100%
Scientific/ Research	17.8%	62.5%	19.7%	100%
Pharmacy	58.9%	36.7%	4.4%	100%
Direct care worker (aged care)	95.1%	4.9%	0%	100%
Dentist	85.9%	14.1%	0%	100%
Other health worker	54.9%	38.6%	6.5%	100%
Other staff	13.5%	73.1%	13.5%	100%

The survey asked participants "What best describes your role in the organisation?" Table 12 shows that greater proportions of staff at Central Office occupied the four highest organisational roles than was the case in the other staff streams. Direct care providers were least likely to hold these roles. Staff at Central Office were least likely to describe their role as "staff member" though this was the most frequently cited role among all groups particularly the direct care group (78.2%).

Table 12: Organisational roles within health care staff groups

Role	Groups of health care staff			
	Direct care	*Indirect care*	*Central Office*	*All respondents*
Executive	0.5%	2.5%	4.2%	1.3%
Senior manager	1.6%	5.4%	6.6%	3.1%
Middle manager	4.4%	9.7%	10.7%	6.4%
Line manager	3.5%	4.8%	5.4%	4.0%
Team leader/ Supervisor	11.8%	10.5%	10.0%	11.3%
Staff member	78.2%	67.1%	63.1%	73.8%
Total	100%	100%	100%	100%

Table 13 shows the number of years respondents in the three staff groups had occupied their current position. Central Office personnel tended to have spent less time in their current positions. They had the highest percentages in the <1 year and 1-2 years categories and the lowest in the 8-12, 13-20 and 20+ years categories. Direct care staff tended to have spent longer in their current positions than other staff groups.

Table 13: Number of years health care staff had occupied current position

Years	Groups of health care staff			
	Direct care	*Indirect care*	*Central Office*	*All respondents*
<1	13.5%	16.3%	24.75	15.0%
1-2	16.2%	18.9%	25.5%	17.6%
3-7	28.7%	30.7%	28.4%	29.3%
8-12	13.3%	13.5%	9.9%	13.2%
13-20	11.7%	10.2%	5.5%	10.8%
20+	16.6%	10.5%	5.9%	14.0%
Total	100%	100%	100%	100%

The survey asked participants the number of years they had worked in their current area of specialty. Table 14 shows that indirect staff tended to have spent longer in their current specialty than other groups of staff. Direct carers are more likely than other groups to have only worked in their specialty for a short period of time.

Table 14: Years health care staff had spent in current specialty

Years	Groups of health care staff			
	Direct care	*Indirect care*	*Central Office*	*All respondents*
<1	9.5%	5.7%	7.7%	8.3%
1-2	12.2%	8.7%	10.0%	11.0%
3-7	26.2%	22.5%	29.3%	25.3%
8-12	16.0%	18.5%	18.6%	17.0%
13-20	15.9%	17.8%	17.4%	16.6%
20+	20.1%	26.8%	17.0%	22.0%
Total	100%	100%	100%	100%

Respondents' numbers of years of experience in the SA health system are shown in table 15. Central Office workers were less likely than other staff groups to have worked for SA Health for a long period of time. They were more likely to have ticked the <1year and 1-2 years options and less likely to checked the two highest options (13-20 years or 20+ years). The direct and indirect staff groups had relatively similar work experience patterns. The option they most often chose was 20+ years.

Table 15: Number of years health care staff had worked in SA health system

Years	Groups of health care staff			
	Direct care	*Indirect care*	*Central Office*	*All respondents*
<1	7.9%	7.4%	15.5%	8.2%
1-2	9.9%	9.5%	13.1%	10.0%
3-7	23.0%	22.1%	22.3%	22.7%
8-12	13.8%	14.8%	13.6%	14.1%
13-20	15.6%	18.1%	14.4%	16.3%
20+	29.8%	28.2%	21.2%	28.8%
Total	100%	100%	100%	100%

A series of questions (items 12-16) explored in detail the work locations of direct and indirect health care staff. Initially staff were asked to identify whether they worked in RDNS (item 12) or SAAS (item 13) which of four state regions they worked for (item 14). Table 16 indicates the number of responses from each service or region and the proportions of direct and indirect forms completed in each region. However as indicated in table 16 some respondents from RDNS and SAAS also checked the health region in which they worked thus figures of the number of respondents from the CNAHS, Country Health SA and SAHS are somewhat inflated.

Table 16: Number of respondents from the six health services and regions and percentages of direct and indirect forms from each

Respondents	Health service or region					
	*RDNS**	*SAAS**	*CNAHS*	*Country Health SA*	*SAHS*	*CYWHS*
Number	498	934	5930	4000	3137	1192
Direct care providers %	77.3%	85.2%	66.9%	64.2%	68.5%	65.4%
Indirect care staff %	22.7%	14.8%	33.1%	35.8%	31.5%	34.6%

*296 RDNS and 481 SAAS staff also answered item 14 citing the region in which they worked.

Further questions investigated the actual facility within regions or services where respondents worked. Detailed tables of these are given in tables in appendix 2. Information about the primary work areas where direct and indirect care staff worked is listed in table 17.

Table 17: Primary work areas of respondents and percentages of direct and indirect care respondents from each area

Primary work area	Respondents		
	Number	*Direct care staff %*	*Indirect care staff %*
Regional/facility office	616	9.3%	90.7%
Many units/no specific unit	521	61.4%	38.6%
Aged care	858	84.6%	15.4%
Anaesthetics/Recovery	253	91.3%	8.7%
Ancillary/Domestic	261	5.4%	94.6%
CAMHS	101	79.2%	20.8%
Client home	351	92.9%	7.1%
Dental	414	74.9%	25.1%
Emergency	816	86.4%	13.6%
Health promotion	107	29.0%	71.0%
General ward	1802	90.6%	9.4%
Health/medical clinic	397	62.7%	37.3%
Intensive care (any type)	448	92.0%	8.0%
Laboratory	230	22.2%	77.8%
Medicine (non-surgical)	407	85.7%	14.3%
Obstetrics/Gynaecology	424	90.6%	9.4%
Paediatrics	357	87.4%	12.6%

Table 17: continued

Primary work area	Respondents		
	Number	*Direct care staff %*	*Indirect care staff %*
Pharmacy	153	52.9%	47.1%
Primary/Community Health	1230	75.4%	24.6%
Population health	80	33.8%	66.3%
Psychiatry	552	88.0%	12.0%
Radiology/Imaging	334	80.5%	19.5%
Rehabilitation	521	87.1%	12.9%
Research/Education	220	22.7%	77.3%
Quality/Safety	218	9.6%	90.4%
Surgery	447	80.8%	19.2%
Other work area	2473	33.6%	66.4%
Total	**14858**	**66.9%**	**33.1%**

5.2   Teamwork Climate scores

5.2.1. *The SAQ's Teamwork Climate Scale.* The Teamwork Climate scale measures respondents' perception of the quality of collaboration between personnel in their workplace (Sexton, Helmreich et al 2006).[8] Table 18 lists the items from the Direct Care form of the survey which contribute to the Teamwork Safety score. The equivalent items in the Indirect Care survey form and the Central Office form (see appendix 1) had the wording slightly amended to reflect the different work situations of these two groups of health workers. For example, item 3 in the Indirect Care form read "My input is well received in this health service" and the Central Office form read "Staff input is well received in the health system". The scores on the items may range from 1 (Disagree strongly) to 5 (Agree strongly). After scores on item 24 are reversed the six item scores comprising the scale are summed and divided by 6 to yield a respondent's Team Climate score. A score of 4 or over reveals a very favourable assessment of the team climate, a score of 3.99-3 indicates a somewhat to slightly favourable assessment while a score of less than 3 shows an unfavourable assessment, increasingly so as the score becomes less. The mean Teamwork Climate score of the total survey population was 3.82 (standard deviation 0.73). On average respondents' Teamwork Climate scores were in the somewhat-slightly agree score band.

Table 18: Items contributing to the Teamwork Climate score*

3. Clinical input is well received in my area.
**24. In my clinical area, it is difficult to speak up if I perceive a problem with patient/client care.
30. Disagreements in my clinical area are appropriately resolved (i.e., not who is right but what is best for the patient/client)
34. I have the support I need from other personnel to care for patients/clients.
35. It is easy for personnel in my clinical area to ask questions when there is something they do not understand.
38. The clinicians in my area work together as a well-coordinated team

*Items are from the *Direct Patient Care Survey Form* ** Item reverse scored

5.2.2. *Teamwork Climate scores of staff providing care directly or indirectly.* The teamwork climate scores from respondents in these two streams of health care staff are shown in table 19. Direct care staff had a higher mean score indicating that they rated teamwork in their workplaces more favourably than did indirect care staff. The spread of the scores in the two groups was similar as indicated by the standard deviations.

Table 19: Teamwork Climate scores for respondents answering direct and indirect survey forms

Statistics	Survey form	
	Direct Care	*Indirect Care*
Mean	3.89	3.75
Standard deviation	0.71	0.74

Scores range from 5 (high evaluation) to 1 (low evaluation)

5.2.3 *Teamwork Climate scores of Central Office staff.* Central Office staff often answered somewhat differently worded questions. These focused on the health system rather than individual facilities. There were also higher levels of neutral responses among Central Office staff suggesting that they may not have felt qualified to express a view on some issues. Such answers would have tended to lower the mean scores of group. The Central Office mean Teamwork Climate score was 3.25 with a standard deviation of 0.65.

5.2.4. *Teamwork Climate scores of different professional and occupational groups.* Twelve professional and occupational groups were compared in terms of their Teamwork Climate scores as shown in table 20. In nine of the occupations the majority of respondents provided direct care and in three the majority of respondents provided indirect care. The responses shown in the table are from the predominant care staff associated with each occupation. Direct aged care staff, dentists and ambulance/paramedics had higher Teamwork Climate scores than other groups. 'Other staff' and pharmacists had the lowest scores among the direct care groups. However all groups were within the upper half of the 3-4 band, the somewhat positive range of possible scores.

Table 20: Mean Teamwork Climate scores for professional or occupational group respondents 'identify most closely with' *

Direct Care Surveys		Indirect Care Surveys	
(Majority of profession answered direct form)	*Mean score*	*(Majority of profession answered indirect form)*	*Mean Score*
Direct care (aged care)	3.96	Administration/Clerical	3.75
Ambulance/Paramedic	3.95	Scientific/Research	3.68
Dentist	3.95	Other staff	3.65
Allied Health: therapy	3.93		
Other health worker	3.92		
Nursing/Midwifery	3.87		
Allied Health: diagnostic/technical	3.87		
Medical	3.85		
Pharmacy	3.70		

* Results are given for the survey form answered by the majority of the occupational group. Respondents who answered a different form from the majority of their group are not included in this table. Scores may range from 5 (high evaluation of teamwork climate) to 1 (low evaluation)

5.2.5. *Teamwork Climate scores for the main work areas of respondents.* Twenty-eight work areas were investigated as listed in table 21. The table shows the responses of the predominant care group (either direct or indirect care) in each work area. Home Care, Rehabilitation and Primary/Community health had the highest Teamwork Climate scores, all of which were over 4. Child & Adolescent Mental Health and Health/Medical Clinics had scores close to 4. No work area received a Team Climate score of less than 3.66.

Table 21: Mean Teamwork Climate scores for main work area of respondents*

Direct Care Surveys		Indirect Care Surveys	
(Majority of those working in area answered direct form)	*Mean Score*	*(Majority of those working in area answered indirect form)*	*Mean Score*
Client Home	4.12	Population Health	3.94
Primary/Community Health	4.02	Regional/facility office	3.79
Rehabilitation	4.02	Ancillary/Domestic	3.79
Health/Medical clinic	3.98	Research/Education	3.78
Child & Adolescent Mental Health	3.98	Quality/Safety	3.76
Dental	3.94	Health promotion	3.72
Paediatrics	3.93	Laboratory	3.69
Surgery	3.92	Other work area	3.66
Obstetrics/Gynaecology	3.87		
Aged care	3.86		
Anaesthetics/Recovery	3.86		
Radiology/Imaging	3.86		
Emergency	3.83		
General Ward	3.83		
Many units/no specific unit	3.79		
Peri-operative	3.77		
Medicine (non-surgical)	3.76		
Psychiatry	3.75		
Intensive care (any type)	3.73		
Pharmacy	3.68		

* Results are given for the survey form answered by the majority of respondents from that work area. Respondents from an area which answered a different form from the majority are not included in this table. Scores may range from 5 (high evaluation of teamwork climate) to 1 (low evaluation)

5.2.6. *Teamwork Climate scores of respondents with different organisational roles.* Higher organisational roles tended to be associated with positive evaluations of teamwork climate (table 22). The executives in both the direct and indirect and care groups had the highest scores. The direct and indirect staff members had scores that were among the lowest in their care staff streams. The four top direct care managerial groups had Teamwork Climate scores higher than 4 but only one indirect managerial group (executives) was as favourable in its Teamwork Climate evaluations.

Table 22: Mean Teamwork Climate scores for respondents with different organisational roles

Organisational Role	Survey form	
	Direct Care	*Indirect Care*
Executive	4.16	4.17
Senior manager	4.05	3.95
Middle manager	4.04	3.75
Line manager	4.06	3.84
Team leader/ Supervisor	3.94	3.72
Staff member	3.86	3.72

Scores may range from 5 (high evaluation) to 1 (low evaluation)

5.2.7. *Teamwork Climate scores and age of respondents.* All age groups of direct care providers had higher Teamwork Climate scores than did their counterparts in indirect (table 23). Older personnel (the 60+ and 45-59 age groups) involved in direct and indirect care reported better teamwork climates than did younger staff.

Table 23: Mean Teamwork Climate scores for respondents of different ages

Age group	Survey form	
	Direct Care	*Indirect Care*
15-29 years	3.82	3.67
30-44 years	3.82	3.69
45-59 years	3.95	3.79
60+ years	4.09	3.87

Scores may range from 5 (high evaluation) to 1 (low evaluation)

5.2.8. *Teamwork Climate scores in different health services and regions.* As shown in table 24 direct care staff in all regions had higher mean scores than did their indirect care counterparts. The direct care providers in RDNS, SAAS, Country Health SA and SAHS had higher Teamwork Climate scores than any groups of indirect care respondents. RDNS has the highest scores in both the direct care and indirect care categories.

Table 24: Teamwork Climate scores for respondents in different health services and regions

Survey form	Health Service/Region					
	RDNS	*SAAS*	*CNAHS*	*Country Health SA*	*SAHS*	*CYWHS*
Direct Care						
Mean	4.03	3.97	3.83	3.94	3.94	3.84
SD	0.67	0.67	0.73	0.73	0.69	0.62
Indirect Care *Mean* *SD*	3.89 0.79	3.67 0.84	3.69 0.73	3.79 0.75	3.84 0.72	3.66 0.70

Table 25 gives more detailed information about the Teamwork Climate scores within specific facilities in the various services and regions. Among direct care provider groups all those in RDNS had teamwork climate scores of over 4. Wayville/Glenside's score of 4.21 was the second highest of any state facility listed in the table. Four SAAS facilities had teamwork climate scores of 4 or more; Metro North, Country North, Country South and Country/other. In CNAHS six facilities had Teamwork climate scores above 4; Hampstead, Modbury, St Margaret's, BreastScreen SA, Primary/Community Health and SA Pathology. BreastScreen's average Teamwork Climate score of 4.23 was the highest in the state. Regional Office and Primary/Community Health in the Country Health SA region had Teamwork Climate scores of 4 or more. Most facilities in SAHS had similarly high scores viz Regional Office, Noarlunga, Repatriation General, DASSA and Primary/Community Health. All direct care provision scores in CYWHS facilities were below 4. Primary/Community Health was the CYWHS service with the highest score of 3.94.

Among indirect care staff Teamwork Climate scores of 4 or higher occurred in the following facilities: RDNS (Wayville/Glenside), SAAS (Metro West), CNAHS (St Margaret's, BreastScreen SA, Primary/Community Health), Country Health SA (Primary/Community Health) and SAHS (Primary/Community Health). In all six of these seven instances the direct care Teamwork Climate score of providers in the facility was also 4 or more.

Table 25: Mean Teamwork Climate scores for respondents from facilities within health services/regions

Service/region And facility	Survey form		Service/region And facility	Survey form	
	Direct care	*Indirect Care*		*Direct care*	*Indirect Care*
RDNS			**Country Health SA**		
Southern	4.02	3.46	Regional office	4.05	3.63
Northern	4.01	3.97	Berri	3.76	3.58
Wayville/Glenside	4.21	4.05	Mt Gambier	3.91	3.52
SAAS			Port Lincoln	3.63	3.79
Metro North	4.00	*	Whyalla	3.81	3.57
Metro South	3.92	*	Other country Hospitals	3.95	3.87
Metro East	3.52	*	Mental Health	3.86	3.68
Metro West	3.82	4.42	Primary/ Community Health	4.12	4.02
Metro/other	3.75	3.42	**SAHS**		
Country Central	3.99	*	Regional office	4.04	3.88
Country North	4.17	3.85	FMC	3.82	3.73
Country South	4.02	3.94	Noarlunga	4.05	3.96
Country/other	4.18	3.80	Repatriation General	4.08	3.93
Emergency Op Centre	*	3.64	DASSA	4.05	3.77
CNAHS			Mental Health	3.93	3.82
Regional office	3.56	3.83	Primary/ Community Health	4.17	4.21
Glenside	3.64	3.64	**CYWHS**		
Hampstead	4.01	3.72	Regional Office	3.80	3.79
Lyell McEwin	3.85	3.49	WCH	3.79	3.66
Modbury	4.00	3.84	Mental Health	3.86	*
Queen Elizabeth	3.72	3.58	Primary/ Community Health	3.94	3.62
Royal Adelaide	3.76	3.65			
St Margaret's	4.04	4.22			
BreastScreen SA	4.23	4.01			
Mental Health	3.80	3.73			
Primary/Community Health	4.01	4.02			
Prison Health	3.85	*			
SA Dental	3.91	3.92			
SA Pathology	4.00	3.72			

* Means are not given when there were less than 10 respondents in a group

5.2.9. *Summary of factors associated with Teamwork Climate scores.* Overall, direct care providers had the highest scores on the Teamwork Climate scale. Indirect care personnel were much closer to them in their attitudes than were respondents from Central Office. Among direct care providers, aged carer workers, ambulance and paramedics, and dentists had the highest Teamwork Climate scores. The work areas associated with the highest scores were clients' homes, primary/community health and rehabilitation (all of which had mean scores over 4). Staff in managerial positions had higher scores than staff lacking a leadership role. Increasing age was associated with more positive appraisals of Team Climate. Age and having a managerial role are of course associated variables.

Among the regions and services RDNS had the highest Teamwork Climate scores for both direct and indirect care staff. Within the regions many facilities were characterised by high teamwork climate scores. Facilities where direct care staff had mean scores of 4 or over were RDNS (all facilities), SAAS (Metro North, Country North, Country South and Country/other), CNAHS (Hampstead, Modbury, St Margaret's, BreastScreen SA, primary/community health and SA Pathology), Country Health (regional office and primary/community health) and SAHS (regional office, Noarlunga, Repatriation General, DASSA and primary/community health).

Such scores were less common among indirect than direct care staff but when they occurred the direct care group in that facility with one exception (Metro West) scored 4 or more. Facilities where indirect care staff had Teamwork Climate scores over 4 were RDNS (Wayville/Glenside), SAAS (Metro West), CNAHS (St Margaret's, BreastScreen SA and primary/community health), Country Health SA (primary/community health) and SAHS (primary/community health).

In none of the numerous comparisons made in these analyses was a subgroup identified which made a negative evaluation of their Teamwork Climate viz had a mean score of less than 3. In many facilities throughout the health system evidence of very positive Teamwork Climates emerged.

5.2.10. *International comparisons.* An advantage of the SAQ is that data are available from studies by Sexton, Helmreich et al (2006) in the USA, the UK and New Zealand which can be utilised in benchmarking the SA survey findings (see appendix 5 for details). As listed in table 26 these data came from general wards, ambulatory clinics, operating rooms and ICUs. As explained in appendix 5 four comparable groups of staff were selected from the SA survey population to compare with the overseas groups. As discussed, Sexton, Helmreich et al. convert SAQ scores from 5-point to 100-point scales. Using their formula the SA groups' scores have been similarly converted for comparison in table 26.

Table 26 shows that the mean Teamwork Climate scores of SA staff in general wards, ambulatory clinics and operating rooms were higher than those of their overseas counterparts. The SA ICU staff had a higher mean Teamwork Climate score than two of Sexton and Helmreich's three ICU groups. The ICUs in the UK had higher scores than the SA group. It should also be noted that SA scores in the operating room comparison and the American ICU comparison were only slightly higher than their overseas counterparts' mean scores. Overall these findings indicate that SA staff report much or slightly more positive team climates in their workplaces in five out of six of the benchmarking comparisons made.

Table 26: Mean Team Climate scores of overseas and South Australian staff in four work settings

Work setting	Team climate mean scores*
General wards	
USA (11 sites, 1531 staff)	64.3
SA, (1733 staff)**	70.7 (3.83)
Ambulatory clinics	
USA (11 sites, 281 staff)	69.7
SA (376 staff)	74.2 (3.97)
Operating rooms	
UK (2 sites, 385 staff)	71.7
SA (423 staff)	72.3 (3.89)
Intensive Care Units	
UK (106 sites, 4856 staff)	74.3
New Zealand (20 sites, 761 staff)	67.9
USA (53 sites, 3029 staff)	65.7
SA (429 staff)	68.1 (3.72)

* All overseas means from Sexton, Helmreich et al (2006)

** Scores were derived using Sexton Helmreich et al's formula for their 100-point scale: subtract 1 from scale score and multiply it by 25. The scale scores of SA respondents on 5-point scale used in this research shown in brackets

5.2.11. *Recommendations.*

R1. Review intervention strategies for further improving teamwork. Many staff recognise the importance of good teamwork. The third most frequent suggestion for improving patient safety made by staff was to improve communication and teamwork. Thus many should be most receptive to interventions aimed at achieving better teamwork. In developing intervention strategies reference should be made to research findings in the area of inter-professional learning. There should also be a recognition of research into differences in the attitudes of the various health professional groups which indicate that some professions are more receptive to teamwork and that different approaches to encouraging teamwork may be more effective with some professional groups than others. Interventions will need to be tailored to the profession, workplace and facility involved.

R2. Take action to improve the Teamwork Climate in work areas and facilities identified in the survey as having less positive Teamwork Climates. This could follow from investigation and identification of the qualities and practice that contribute to good teamwork amongst staff in work areas and facilities with higher Teamwork Climate scores.

5.3   Safety Climate scores

5.3.1. *The Safety Climate Scale.* The Safety Climate Scale measures respondents' perceptions of their organisation, service or facility's strong and proactive commitment to patient safety (Sexton, Helmreich et al 2006).[8] Table 27 lists the items from the Direct Care form of the survey which contribute to the Safety Climate score. Some of the equivalent items in the Indirect Care survey form and the Central Office form (see appendix 1) had the wording slightly amended to reflect the different work situations of these two groups of health care staff. For example, item 5 in the Indirect Care form read, "Errors are handled appropriately in my health service" and the Central Office form read "Clinical errors are handled appropriately in the health system". The scores on the items may range from 1 (Disagree strongly) to 5 (Agree strongly). After scores on item 11 are reversed the seven item scores are summed and divided by 7 to yield a respondent's Safety Climate score. A score of 4 or over reveals a very favourable assessment of the safety climate, a score of 3.99-3 indicates a somewhat to slightly favourable assessment while a score of less than 3 shows an unfavourable assessment, increasingly so as the score decreases. The mean Safety Climate score for the total survey population was 3.88 (standard deviation 0.67) indicating a somewhat positive evaluation.

Table 27: Items contributing to the Safety Climate score*

4. I would feel safe being treated here as a patient/client.
5. Errors are handled appropriately in my clinical area.
10. I receive appropriate feedback about my performance.
**11. In my area it is difficult to discuss errors.
20. I am encouraged by my colleagues to report any patient/client safety concerns I may have.
21. The culture in my clinical area makes it easy to learn from the errors of others.
28. I know the proper channels to direct questions regarding patient/client safety in my clinical area.

*Items are from the *Direct Patient Care Survey Form* ** Item reverse scored

5.3.2. *Safety Climate scores of staff providing care directly or indirectly.* The statistics describing the Safety Climate scores of the groups who completed the direct and indirect forms of the SAQ are shown in table 28. The direct care providers rated the safety of their workplaces as greater than did the indirect care group. The mean scores of both groups were in the upper range of the 3-4 score band and the standard deviations were similar.

Table 28: Safety Climate scores of respondents answering direct and indirect survey forms

Statistics	Survey form	
	Direct Care	*Indirect Care*
Mean	3.94	3.83
Standard deviation	0.65	0.67

Scores range from 5 (high evaluation) to 1 (low evaluation)

5.3.3. *Safety Climate scores of staff in Central Office.* Central Office staff often answered somewhat differently worded questions. There were also higher levels of neutral responses among Central Office staff suggesting that they may not have felt qualified to express a view on some issues. Such answers would have tended to lower the mean scores of groups. The mean Safety Climate score of Central Office staff was 3.38 with a standard deviation of 0.57.

5.3.4. *Safety Climate scores of different professional and occupational groups.* The mean safety scores of twelve professional and occupational groups are listed in table 29. The direct care aged care workers and "other health workers" had scores of over 4. The pharmacy sample had the lowest mean of 3.72. Thus all occupational groups held favourable to somewhat favourable views about their organisations' commitment to patient safety.

Table 29: Mean Safety Climate scores for professional or occupational group respondents 'identify most closely with' *

Direct Care Surveys		Indirect Care Surveys	
(Majority of profession answered direct form)	*Mean score*	*(Majority of profession answered indirect form)*	*Mean Score*
Direct care (aged care)	4.08	Administration/Clerical	3.80
Other health worker	4.03	Other staff	3.78
Dentist	3.98	Scientific/Research	3.74
Allied Health: therapy	3.96		
Nursing/Midwifery	3.95		
Allied Health: diagnostic/technical	3.93		
Ambulance/Paramedic	3.90		
Medical	3.81		
Pharmacy	3.72		

* Results are given for the survey form answered by the majority of the occupational group. Respondents who answered a different form from the majority of their group are not included in this table. Scores may range from 5 (high evaluation of safety climate) to 1 (low evaluation)

5.3.5. *Safety Climate scores for the main work areas of respondents.* Table 30 reveals that seven main work areas were associated with ratings of over 4; clients' homes, rehabilitation, Child and Adolescent Mental Health, primary/community care, dental clinics, health/medical clinics and aged care. Pharmacy had the lowest rating of 3.65. Thus all main workplaces received mean Safety Climate ratings above or in the upper section of the 3-4 score band or above.

Table 30: Mean Safety Climate scores for main work area of respondents *

Direct Care Surveys		**Indirect Care Surveys**	
(Majority of those working in area answered direct form)	*Mean Score*	*(Majority of those working in area answered indirect form)*	*Mean Score*
Client Home	4.14	Ancillary/Domestic	3.93
Child & Adolescent Mental Health	4.08	Population Health	3.89
Rehabilitation	4.08	Quality/Safety	3.88
Primary/Community Health	4.07	Health promotion	3.86
Dental	4.05	Research/Education	3.84
Health/Medical clinic	4.03	Regional/Facility office	3.83
Aged care	4.00	Laboratory	3.82
Obstetrics/Gynaecology	3.99	Other work areas	3.75
Anaesthetics/Recovery	3.96		
Surgery	3.95		
Paediatrics	3.94		
Peri-operative	3.92		
General Ward	3.91		
Radiology/Imaging	3.87		
Many units/no specific unit	3.86		
Emergency	3.82		
Intensive care (any type)	3.77		
Psychiatry	3.77		
Medicine (non-surgical)	3.76		
Pharmacy	3.65		

* Results are given for the survey form answered by the majority of respondents from that work area. Respondents from an area which answered a different form from the majority are not included in this table. Scores may range from 5 (high evaluation of safety climate) to 1 (low evaluation)

5.3.6. *Safety Climate scores of respondents with different organisational roles.* Table 31 reveals that among the direct and indirect staff streams, executives had higher Safety Climate scores than other staff. Among direct care workers the four highest status groups had mean scores over 4 and scores decreased as respondents moved down the organisational hierarchy. This was also the case among indirect care staff although team leaders had the same mean scores as "staff members" did.

Table 31: Mean Safety Climate scores for respondents with different organisational roles

Organisational Role	Survey form	
	Direct Care	*Indirect Care*
Executive	4.13	4.20
Senior manager	4.06	3.98
Middle manager	4.11	3.86
Line manager	4.06	3.85
Team leader/ Supervisor	3.98	3.80
Staff member	3.92	3.80

Scores may range from 5 (high evaluation) to 1 (low evaluation)

5.3.7. *Safety Climate scores and age of respondents.* Among direct and indirect care personnel older staff had more positive Safety Climate scores than did staff members in the two younger age groups (see table 32). The two oldest groups of direct care providers had Safety Climate scores over 4.

Table 32: Mean Safety Climate scores for respondents of different ages

Age group	Survey form	
	Direct Care	*Indirect Care*
15-29 years	3.89	3.75
30-44 years	3.87	3.76
45-59 years	4.01	3.87
60+ years	4.09	3.94

Scores may range from 5 (high evaluation) to 1 (low evaluation)

5.3.8. *Safety Climate scores in different areas and regions.* Table 33 reveals that direct care providers in RDNS and Country Health SA had Safety Climate scores over 4. The Safety Climate scores of direct care staff in all regions were higher than those of indirect care staff in their region. All scores were above 3.72 so were in the upper section of the 3-4 score band.

Table 33: Safety Climate scores for respondents in different health services and regions

Survey form	Health Service/Region					
	RDNS	*SAAS*	*CNAHS*	*Country Health SA*	*SAHS*	*CYWHS*
Direct Care						
Mean	4.11	3.96	3.88	4.01	3.98	3.96
SD	0.59	0.64	0.66	0.64	0.66	0.62
Indirect Care *Mean* *SD*	3.95 0.83	3.72 0.83	3.76 0.67	3.91 0.65	3.88 0.67	3.78 0.65

The mean Safety Climate scores of facilities within the various health services and regions are listed in table 34. Direct care staff in twenty-two facilities had Safety Climate scores of over 4. These included all RDNS facilities, three SAAS facilities, six in CNAHS, five in SAHS, three in Country Health SA and two in CYWHS. Indirect care staff in nine facilities had Safety Climate scores over 4. In all cases of indirect care staff with high Safety Climate scores the direct care staff in their facilities also had scores over 4.

Table 34: Mean Safety Climate scores for respondents from facilities within health services/regions

Service/Region and facility	Survey form		Service/Region and facility	Survey form	
	Direct care	*Indirect Care*		*Direct care*	*Indirect Care*
RDNS			**Country Health SA**		
Southern	4.11	3.42	Regional office	4.14	3.63
Northern	4.10	3.98	Berri	3.79	3.63
Wayville/Glenside	4.16	4.21	Mt Gambier	3.94	3.70
SAAS			Port Lincoln	3.65	3.90
Metro North	3.92	*	Whyalla	3.81	3.65
Metro South	3.95	3.40	Other country Hospital	4.05	4.00
Metro East	3.54	*	Mental Health	3.96	3.83
Metro West	3.76	*	Primary/ Community Health	4.14	4.09
Metro/other	3.81	3.45	**SAHS**		
Country Central	3.98	*	Regional office	4.00	3.89
Country North	4.15	3.92	FMC	3.86	3.77
Service/Region and facility	Survey form		Service/Region and facility	Survey form	
	Direct care	*Indirect Care*		*Direct care*	*Indirect Care*
Country South	4.01	4.08	Noarlunga	4.17	4.04
Country/other	4.23	3.88	Repatriation General	4.10	3.97
Emergency Op Centre	*	3.57	DASSA	4.18	3.73
CNAHS			Mental Health	3.96	3.92
Regional office	3.82	3.77	Primary/ Community Health	4.15	4.17
Glenside	3.68	3.51	**CYWHS**		
Hampstead	4.09	3.72	Regional Office	4.18	3.84
Lyell McEwin	3.86	3.60	WCH	3.92	3.76
Modbury	3.95	3.87	Mental Health	3.97	3.93
Queen Elizabeth	3.81	3.71	Primary/ Community Health	4.05	3.85
Royal Adelaide	3.81	3.71			
St Margaret's	4.18	4.41			
BreastScreen SA	4.36	4.07			
Mental Health	3.77	3.70			
Primary/Community Health	4.07	4.03			
Prison Health	3.84	*			
SA Dental	4.04	3.97			
SA Pathology	4.07	3.83			

*Means are not given when there were less than 10 respondents in a group

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5.3.9. *Summary of factors associated with Safety Climate scores.* Direct care providers had the highest Safety Climate scores and with the indirect staff had scores in the upper section of the 3-4 score band while Central Office staff had scores in the lower section of 3-4 score band. Among the various direct care health professions aged care workers and "other health workers" had Safety Climate scores over 4. No indirect occupational group scored so highly. Work areas associated with high Safety Climate scores of 4 or more were clients' homes, Child and Adolescent Mental Health, rehabilitation, primary/community health, dental, health/medical clinics and aged care.

There was a strong association between Safety Climate scores and both age and organisational role in the direct and indirect care streams. Of the various health regions and services RDNS had the highest Safety Climate scores among its direct and indirect care staff and Country Health SA had the second highest.

Direct care staff in many facilities within health regions made high Safety Climate assessments of 4 or more. These included RDNS (all facilities), SAAS (Country North, Country South, Country/other), CNAHS (Hampstead, St Margaret's, BreastScreen SA, primary/community health, SA Dental and SA Pathology), Country Health SA (Regional Office, other country hospitals and primary/community health), SAHS (Regional Office, Noarlunga, Repatriation General, DASSA and primary/community health) and CYNHS (regional office and primary and community health). Indirect care staff had Safety Climate scores over 4 in RDNS (Wayville/Glenside), SAAS (Country South), CNAHS (St Margaret's, BreastScreen SA, primary/community health), Country Health (primary/community health and other country hospitals) and SAHS (Noarlunga and primary/community health). In all instances of indirect staff in a facility have a score over 4 the direct care Safety Climate scores for the facilities were also over 4.

5.3.10. *International comparisons.* Studies conducted with the SAQ in overseas health care settings (Sexton, Helmreich et al, 2006) provided data for benchmarking of the Safety Climate scores of groups of SA health staff from four work settings. Appendix 5 gives details of the overseas and SA samples. It explains how Sexton, Helmreich et al converted SAQ scores from 5-point to 100-point scales. This conversion was applied to the SA Safety Climate scores used in the benchmarking comparisons.

As table 35 shows the mean Safety Climate scores of SA staff in general wards, ambulatory clinics, operating rooms and ICUs were higher than those of their overseas counterparts. In the case of American ICUs the mean difference was slight. Overall these comparisons indicate that SA health care providers' ratings of the Safety Climate in their workplaces compares very favourably with those of overseas health care professionals in similar settings.

Table 35: Mean Safety Climate scores of overseas and South Australian staff in four work settings

Work setting	Safety climate mean scores*
General wards	
USA (11 sites, 1531 staff)	60.5
SA (1733 staff)**	72.5 (3.90)
Ambulatory clinics	
USA (11 sites, 281 staff)	69.6
SA (376 staff)	75.0 (4.00)
Operating rooms	
UK (2 sites, 385 staff)	69.6
SA (423 staff)	73.4 (3.94)
Intensive Care Units	
UK (106 sites, 4856 staff)	67.7
New Zealand (20 sites, 761 staff)	63.8
USA (53 sites, 3029 staff)	68.8
SA (429 staff)	69.2 (3.77)

* All overseas means from Sexton, Helmreich et al (2006)

** Scores were derived using Sexton Helmreich et al's formula for their 100-point scale: subtract 1 from scale score and multiply it by 25. The scale scores of SA respondents on 5-point scale used in this research shown in brackets

5.3.11. *Recommendations.*

R3. Identify areas and facilities with less positive Safety Climate scores, investigate possible reasons for such ratings and design appropriate interventions bearing in mind practices in similar types of facilities within the health system which have higher Safety Climate scores.

R4. Implement safety improvement education programs for staff. These should be based on past programs in safety education which have been found to change and consolidate safety practices over time. Such courses should emphasise some safety practices which staff attach less importance to. When staff were requested to make suggestions for improving patient safety the two categories attracting the fewest responses were implementing guidelines, reviews and audits and improving incident reporting. While a greater proportion of Central Office staff advocated these strategies they were still relatively low in their hierarchy of suggestions.

R5. Examine opportunities to improve staff access to safety education initiatives. The second most frequent suggestion made by staff was for more education (particularly in-service courses). Thus staff should be very receptive to the implementation of courses aimed at improving patient safety.

R6. Monitor the effects of safety initiatives at health area and facility levels over time. In areas where these are less encouraging determine and remedy contributing causes eg practices of management, infrastructure problems.

R7. Review orientation processes for new staff.

5.4   Job Satisfaction scores

5.4.1. *The Job Satisfaction Scale.* The Job Satisfaction Scale measures the positive or negative feelings that respondents hold about their position of employment. Sexton, Helmreich et al (2006) describe job satisfaction as "positivity about work experience" (p.3).[8] Table 36 lists the items from the Direct Care form of the survey which contribute to the Job Satisfaction score. Some of the equivalent items in the Indirect Care survey form and the Central Office form (see appendix 1) had the wording slightly amended for some items to reflect the different work situations of these groups of health care staff. For example, item 42 in the Indirect Care form read, "Morale in my area is high" and the Central Office form read "Morale in the health system is high". The scores on the items may range from 1 (Disagree strongly) to 5 (Agree strongly). The five item scores are summed and divided by 5 to yield a respondent's Team Climate score. A score of 4 or over reveals Job Satisfaction, a score of 3.99-3 indicates being somewhat to slightly satisfied with one's job, while a score of less than 3 indicates job dissatisfaction, increasingly so as the score becomes less. The mean Job Satisfaction score for the total survey population was 3.90 (standard deviation 0.81). Overall Job Satisfaction was relatively high, on the somewhat-slightly favourable score band.

Table 36: Items contributing to the Job Satisfaction score*

2. I like my job.
8. Working in this health service is like being part of a large family.
14. This health service is a good place to work.
29. I am proud to work here.
42. Morale in my clinical area is high.

*Items are from the Direct Patient Care Survey Form

5.4.2. *Job Satisfaction scores of staff providing care directly or indirectly.* Table 37 indicates that the direct care group had the higher mean Job Satisfaction scores than indirect care staff. Both scores were at the upper end of the 3-4 score band. The standard deviations of the groups were similar.

Table 37: Job Satisfaction scores of respondents answering direct and indirect survey forms

Statistics	Survey form	
	Direct Care	*Indirect Care*
Mean	3.96	3.86
Standard deviation	0.79	0.82

Scores range from 5 (high satisfaction) to 1 (low satisfaction)

5.4.3. *Job Satisfaction scores of Central Office staff.* Central Office staff often answered somewhat differently worded questions. There were also higher levels of neutral responses among Central Office staff suggesting that they may not have felt qualified to express a view on some issues. Such answers would have tended to lower the mean scores of group. The mean Job Satisfaction score of Central Office staff was 3.43 with a standard deviation of 0.79.

5.4.4. *Job Satisfaction scores of different professional and occupational groups.* As table 38 shows three of the 12 occupational groups had Job Satisfaction scored above 4; direct aged carers, ambulance/paramedic personnel and "other health workers". Dentists, pharmacists and scientists and researchers expressed the lowest job satisfaction. However no group scored less than 3.73 indicating that most were at least somewhat satisfied with their position of employment.

Table 38: Mean Job Satisfaction scores for professional or occupational group that respondents 'identify most closely with' *

Direct Care Surveys		Indirect Care Surveys	
(Majority of profession answered direct form)	*Mean score*	*(Majority of profession answered indirect form)*	*Mean Score*
Direct care (aged care)	4.13	Administration/Clerical	3.84
Ambulance/Paramedic	4.12	Other staff	3.83
Other health worker	4.04	Scientific/Research	3.80
Allied Health: therapy	3.96		
Allied Health: diagnostic/technical	3.94		
Nursing/Midwifery	3.93		
Medical	3.92		
Pharmacy	3.80		
Dentist	3.73		

* Results are given for the survey form answered by the majority of the occupational group. Respondents who answered a different form from the majority of their group are not included in this table. Scores may range from 5 (high job satisfaction) to 1 (low satisfaction)

5.4.5. *Job Satisfaction scores for the main work areas of respondents.* The Job Satisfaction ratings of 28 primary work areas are shown in table 39. Those working in clients' homes, rehabilitation, primary/community health, child and adolescent mental health and health/medical clinics all had Job Satisfaction scores of over 4. The lowest workplace rating was 3.63. Thus all ratings of Job Satisfaction were favourable to somewhat favourable.

Table 39: Mean Job Satisfaction scores for main work area of respondents *

Direct Care Surveys		**Indirect Care Surveys**	
(Majority of those working in area answered direct form)	*Mean Score*	*(Majority of those working in area answered indirect form)*	*Mean Score*
Client Home	4.15	Ancillary/Domestic	3.99
Rehabilitation	4.13	Research/Education	3.98
Primary/Community Health	4.12	Health promotion	3.93
Child & Adolescent Mental Health	4.11	Regional /Facility office	3.87
Health/Medical clinic	4.07	Population Health	3.82
Aged care	3.99	Quality/Safety	3.82
Paediatrics	3.96	Other work area	3.78
Surgery	3.95	Laboratory	3.63
Anaesthetics/Recovery	3.94		
Obstetrics/Gynaecology	3.94		
Medicine (non-surgical)	3.93		
Many units/no specific unit	3.91		
General Ward	3.91		
Emergency	3.90		
Peri-operative	3.88		
Radiology/Imaging	3.84		
Dental	3.80		
Intensive care (any type)	3.79		
Pharmacy	3.74		
Psychiatry	3.71		

* Results are given for the survey form answered by the majority of respondents from that work area. Respondents from an area which answered a different form from the majority are not included in this table. Scores may range from 5 (high job satisfaction) to 1 (low satisfaction)

5.4.6. *Job Satisfaction scores of respondents with different organisational roles.* Executives in direct and indirect staff streams had the highest Job Satisfaction within their stream. The four highest status groups in the direct care hierarchy scored over 4. With a few exceptions within the direct and indirect groups, scores decreased as participants' roles descended the organisational hierarchy (see table 40).

Table 40: Mean Job Satisfaction scores for respondents with different organisational roles

Organisational Role	Survey form	
	Direct Care	*Indirect Care*
Executive	4.22	4.21
Senior manager	4.14	3.92
Middle manager	4.04	3.79
Line manager	4.05	3.81
Team leader/ Supervisor	3.98	3.78
Staff member	3.94	3.86

Scores may range from 5 (high satisfaction) to 1 (low satisfaction)

5.4.7. *Job Satisfaction scores and age of respondents.* As shown in table 41 Job Satisfaction was highest among the 60+ age groups for both the direct and indirect care staff and second highest among the 45-49 year groups.

Table 41: Mean Job Satisfaction scores for respondents of different ages

Age group	Survey form	
	Direct Care	*Indirect Care*
15-29 years	3.93	3.79
30-44 years	3.90	3.76
45-59 years	3.99	3.91
60+ years	4.20	4.03

Scores may range from 5 (high satisfaction) to 1 (low satisfaction)

5.4.8. *Job Satisfaction scores in different health services and regions.* Table 42 shows that direct care staff in all health services and regions, with the exception of CNAHS, had Job Satisfaction scores over 4, the highest being in SAAS. Indirect care staff in all regions had Job Satisfaction scores high in the 3-4 score band, the highest being at SAHS (3.98).

Table 42: Job Satisfaction scores for respondents in different health services and regions

Survey form	Health Service/Region					
	RDNS	*SAAS*	*CNAHS*	*Country Health SA*	*SAHS*	*CYWHS*
Direct Care *Mean* *SD*	4.04 0.75	4.13 0.72	3.86 0.81	4.00 0.81	4.02 0.76	4.03 0.73
Indirect Care *Mean* *SD*	3.97 0.92	3.75 0.97	3.78 0.81	3.89 0.86	3.98 0.79	3.77 0.80

As shown in table 43 direct care providers in twenty-four facilities had Job Satisfaction scores greater than 4. These included all RDNS facilities, five facilities in SAAS, five in CNAHS, five in SAHS, and three in both CYWHS and Country Health SA. Indirect care workers had similarly high Job Satisfaction scores in thirteen facilities. In all but one instance (Modbury) the direct care staff in these facilities also had Job Satisfaction scores over 4.

Table 43: Mean Job Satisfaction scores for respondents from facilities within health services/regions

Service/Region and facility	Survey form		Service/Region and facility	Survey form	
	Direct Care	*Indirect Care*		*Direct Care*	*Indirect Care*
RDNS			**Country Health SA**		
Southern	4.04	3.40	Regional office	4.32	3.71
Northern	4.00	4.14	Berri	3.84	3.48
Wayville/Glenside	4.21	4.14	Mt Gambier	3.91	3.62
SAAS			Port Lincoln	3.38	3.85
Metro North	4.11	*	Whyalla	3.81	3.65
Metro South	4.10	3.24	Other country Hospital	4.05	4.00
Metro East	3.56	*	Mental Health	3.71	3.64
Metro West	3.95	*	Primary/ Community Health	4.19	4.06
Metro/other	3.86	3.51	**SAHS**		
Country Central	3.28	*	Regional office	4.11	3.87
Country North	4.29	3.99	FMC	3.87	3.87
Country South	4.15	4.17	Noarlunga	4.15	4.08
Country/other	4.35	4.14	Repatriation General	4.23	4.19
Emergency Op Centre	*	3.56	DASSA	4.22	3.63
CNAHS			Mental Health	3.94	3.94
Regional office	3.58	3.87	Primary/ Community Health	4.25	4.37
Glenside	3.49	3.59	**CYWHS**		
Hampstead	4.15	3.80	Regional Office	4.22	3.66
Lyell McEwin	3.94	3.69	WCH	3.90	3.75
Modbury	3.90	4.01	Mental Health	4.12	*
Queen Elizabeth	3.84	3.72	Primary/ Community Health	4.26	3.87
Royal Adelaide	3.80	3.75			
St Margaret's	4.08	4.57			
BreastScreen SA	4.36	4.22			
Mental Health	3.73	3.67			
Primary/Community Health	4.01	4.06			
Prison Health	3.88	*			
SA Dental	3.79	3.92			
SA Pathology	4.08	3.60			

* Means are not given when there were less than 10 respondents in a group

5.4.9. *Summary of factors associated with Job Satisfaction scores.* Job Satisfaction was greatest among direct care providers followed by indirect care staff and lower among Central Office staff. Of the professional groups involved in direct and indirect care those with Job Satisfaction scores above 4 were direct carers (aged care), ambulance/paramedic staff, and "other health workers". No occupational group had a mean Job Satisfaction score below 3.73. Ratings of respondents' main work areas indicated that the greatest Job Satisfaction (scores of over 4) was associated with clients' homes, rehabilitation, primary/community health, child and adolescent mental health and health/medical clinics. Work places receiving the lowest Job Satisfaction ratings were pharmacy, psychiatry and laboratories. However no ratings fell below the upper half of the 3-4 score band. Among direct and indirect care staff there was an association between Job Satisfaction and both age and higher organisational role. In all health regions direct care staff had higher mean scores on Job Satisfaction than did their indirect care counterparts. In many facilities within regions direct care staff had Job Satisfaction scores above 4: in RDNS (Southern, Northern* and Wayville/Glenside*), in SAAS (Metro North, Metro South, Country North, Country South*, and Country/other*), CNAHS (Hampstead, St Margaret's*, BreastScreen SA*, primary/community health* and SA Pathology), in Country Health SA (Regional office, other country hospitals* and primary/community health*), SAHS (Regional office, Noarlunga*, Repatriation General*, DASSA and primary/community health*), and CYWHS (Regional office, mental health and primary/community health). In facilities that are starred the indirect care staff also had Job Satisfaction scores over 4. Additionally indirect care staff at Modbury had a Job Satisfaction score over 4.

5.4.10. *International comparisons.* Studies reported by Sexton, Helmreich et al (2006) enabled benchmarking of the Job Satisfaction ratings of SA staff working in general wards, ambulatory clinics, operating rooms and ICUs against those of international counterparts. Appendix 5 gives details of the benchmarking process. It explains Sexton and Helmreich's conversion of the SAQ factor scores from 5-point to 100-point scales; a process we have followed in table 44 to enable comparison of the various data sets. Table 44 shows that on each of the six comparisons made SA staff expressed higher mean Job Satisfaction than their overseas counterparts.

Table 44: Mean Job Satisfaction scores of overseas and South Australian staff in four work settings

Work setting	Job Satisfaction mean scores*
General wards	
USA (11 sites, 1531 staff)	59.6
SA (1733 staff)**	73.0 (3.92)
Ambulatory clinics	
USA (11 sites, 281 staff)	70.6
SA (376 staff)	76.7 (4.07)
Operating rooms	
UK (2 sites, 385 staff)	70.1
SA (423 staff)	73.4 (3.94)
Intensive Care Units	
UK (106 sites, 4856 staff)	60.7
New Zealand (20 sites, 761 staff)	59.9
USA (53 sites, 3029 staff)	68.8
SA (429 staff)	70.1 (3.80)

* All overseas means from Sexton, Helmreich et al (2006)

** Scores were derived using Sexton Helmreich et al's formula for their 100-point scale: subtract 1 from scale score and multiply it by 25. The scale scores of SA respondents on 5-point scale used in this research shown in brackets

5.4.11. *Recommendations.*

R8. Work with areas, facilities and professional groups with less favourable staff turnover and sick-leave against other indices of staff satisfaction. For most staff groups Job Satisfaction was relatively high and compared well with overseas levels in the benchmarking studies. It seems likely that improvements to staff's assessment of their Working Conditions and Perceptions of Management would further impact positively on Job Satisfaction scores.

R9. Take action to improve Job Satisfaction in areas with less favourable satisfaction scores. Most suggestions in this area focus on removing negative experiences that may decrease Job Satisfaction but increasing positive work experiences is also important. It was apparent from the number and type of suggestions made by staff about increasing patient focus in health care work that this is seen as an important and satisfying aspect of their work but issues at work eg staff shortages and excessive paper work constrain staff from providing the type and degree of patient care they consider to be desirable.

5.5   Stress Recognition scores

5.5.1. *The Stress Recognition Scale.* The SAQ's Stress Recognition Scale measures the extent of respondents' acknowledgement that performance is influenced by stressors (Sexton, Helmreich et al 2006).[8] Table 45 lists the items from the Direct Care form of the survey which contribute to the Stress Recognition score. Some of the equivalent items in the Indirect Care survey form and the Central Office form (see appendix 1) had their wording slightly amended to reflect the different work situations of the groups of health care staff. For example, item 32 in the Indirect Care form is the same as for the Direct Care form but in the Central Office form the item reads, "Staff in the health system are more likely to make errors in tense or hostile situations". The scores on the items may range from 1 (Disagree strongly) to 5 (Agree strongly). The four item scores are summed and divided by 4 to yield a respondent's Stress Recognition score. A score of 4 or over reveals recognition of the effects of stress on performance, a score of 3.99-3 indicates some to slight Stress Recognition while a score of less than 3 indicates a denial of the effects of stress on performance. The mean Stress Recognition score for the total survey population was 3.67 (standard deviation 0.80) indicating recognition of the effects of stress on performance.

Table 45: Items contributing to Stress Recognition score*

15. Fatigue impairs my performance during emergency situations.
25. When my workload becomes excessive, my performance is impaired.
31. I am less effective at work when fatigued.
32. I am more likely to make errors in tense or hostile situations.

*Items are from the Direct Patient Care Survey Form

5.5.2. *Stress Recognition scores of staff providing care directly or indirectly.* The Stress Recognition scores of these health staff groups are listed in table 46. The direct care group average was toward the upper range of the 3-4 score band while the indirect care was in the middle of this range.

Table 46: Stress Recognition scores of respondents answering direct and indirect survey forms

Statistics	Survey form	
	Direct Care	*Indirect Care*
Mean	3.71	3.52
Standard deviation	0.80	0.79

Scores range from 5 (high recognition) to 1 (low recognition)

5.5.3. *Stress Recognition scores of Central Office staff.* Central Office staff often answered somewhat differently worded questions. There were also higher levels of neutral responses among Central Office staff suggesting that they may not have felt qualified to express a view on some issues. The mean Stress Recognition score of Central Office staff was 3.99 with a standard deviation of 0.65*.*

5.5.4. *Stress Recognition scores of different professional and occupational groups.* As shown in table 47, Stress Recognition scores were highest for pharmacists (3.92), followed closely by doctors (3.89). "Other health workers", "other staff" and administration/clerical staff had the lowest Stress Recognition scores being situated around the middle of the 3-4 score range. Thus all occupational groups expressed some awareness of the effects of stress on performance.

Table 47: Mean Stress Recognition scores for professional or occupational group respondents 'identify most closely with' *

Direct Care Surveys		**Indirect Care Surveys**	
(Majority of profession answered direct form)	*Mean score*	*(Majority of profession answered indirect form)*	*Mean Score*
Pharmacy	3.92	Scientific/Research	3.69
Medical	3.89	Other staff	3.51
Allied Health: diagnostic/technical	3.77	Administration/Clerical	3.48
Nursing/Midwifery	3.75		
Dentist	3.71		
Allied Health: therapy	3.66		
Direct care (aged care)	3.60		
Ambulance/Paramedic	3.54		
Other health worker	3.46		

* Results are given for the survey form answered by the majority of the occupational group. Respondents who answered a different form from the majority of their group are not included in this table. Scores may range from 5 (high stress recognition) to 1 (low recognition)

5.5.5. *Stress Recognition scores for the main work area of respondents.* The work area where there was greatest awareness of the effects of stress on performance was pharmacy (3.93), followed by obstetrics/gynaecology and peri-operative care. All workplaces where direct care providers predominated had Stress Recognition scores in the upper half of the 3-4 score band or above. Most areas where indirect care staff predominated had lower Stress Recognition scores (see table 48).

Table 48: Mean Stress Recognition scores for main work area of respondents*

Direct Care Surveys		Indirect Care Surveys	
(Majority of those working in area answered direct form)	*Mean Score*	*(Majority of those working in area answered indirect form)*	*Mean Score*
Pharmacy	3.93	Quality/Safety	3.75
Obstetrics/Gynaecology	3.91	Research/Education	3.73
Peri-operative	3.90	Regional/Facility office	3.53
Radiology/Imaging	3.87	Laboratory	3.53
Anaesthetics/Recovery	3.86	Population Health	3.52
Medicine (non-surgical)	3.84	Other work area	3.49
Child & Adolescent Mental Health	3.81	Health promotion	3.45
Paediatrics	3.81	Ancillary/Domestic	3.43
Many units/no specific unit	3.80		
Intensive care (any type)	3.79		
General Ward	3.78		
Emergency	3.76		
Surgery	3.72		
Rehabilitation	3.63		
Aged care	3.62		
Client Home	3.62		
Health/Medical clinic	3.62		
Primary/Community Health	3.61		
Psychiatry	3.59		
Dental	3.58		

* Results are given for the survey form answered by the majority of respondents from that work area. Respondents from an area which answered a different form from the majority are not included in this table. Scores may range from 5 (high stress) to 1 (low recognition)

5.5.6. *Stress Recognition scores of respondents with different organisational roles.* The relationship of Stress Recognition and organisational role was not clear-cut (see table 49). Among indirect staff middle managers had the highest Stress Recognition scores while among direct care providers line managers and "staff members" had the highest scores. Examination of the table shows that there was relatively little variation between the Stress Recognition scores of the direct carer organisational role groups (3.71-3.63). The range for indirect groups was 3.70-3.33.

Table 49: Mean Stress Recognition scores for respondents with different organisational roles

Organisational Role	Survey form	
	Direct Care	*Indirect Care*
Executive	3.69	3.33
Senior manager	3.63	3.60
Middle manager	3.67	3.70
Line manager	3.71	3.61
Team leader/ Supervisor	3.69	3.60
Staff member	3.71	3.48

Scores may range from 5 (high recognition) to 1 (low recognition)

5.5.7. *Stress Recognition scores and age of respondents.* There was an association between age and Stress Recognition among direct care personnel (although the 30-44 and 45-59 year old direct care groups had similar scores). Among indirect carers age was associated with Stress Recognition with the exception of the 60+ year group which had the lowest scores in table 50.

Table 50: Mean Stress Recognition scores for respondents of different ages

Age group	Survey form	
	Direct Care	*Indirect Care*
15-29 years	3.55	3.39
30-44 years	3.71	3.50
45-59 years	3.70	3.58
60+ years	3.77	3.37

Scores may range from 5 (high recognition) to 1 (low recognition)

5.5.8. *Stress Recognition scores in different health services and regions.* Stress Recognition scores were higher among indirect than direct care providers in all regions and services except in RDNS and SAAS where the reverse was the case. Among direct care staff Stress Recognition scores were highest in CYWHS and lowest in SAAS. Among indirect staff Stress Recognition scores were highest in RDNS and lowest in Country Health SA (see table 51).

Table 51: Stress Recognition scores for respondents in different health services and regions

Survey form	Health Service/Region					
	RDNS	*SAAS*	*CNAHS*	*Country Health SA*	*SAHS*	*CYWHS*
Direct Care						
Mean	3.69	3.54	3.73	3.66	3.74	3.78
SD	0.82	0.79	0.81	0.83	0.79	0.74
Indirect Care *Mean* *SD*	3.74 0.79	3.69 0.77	3.53 0.78	3.49 0.80	3.47 0.78	3.60 0.77

Table 52 gives more detailed information about the stress recognition scores within specific facilities in the various services and regions. No facility had a mean Stress Recognition score over 4. Among the direct care provider groups only three had Stress Recognition scores less than 3.50. However indirect care staff in 15 facilities scored less than this.

Table 52: Stress Recognition scores for respondents from facilities within health services/regions

Service/Region and facility	Survey form		Service/Region and facility	Survey form	
	Direct Care	*Indirect Care*		*Direct Care*	*Indirect Care*
RDNS			**Country Health SA**		
Southern	3.63	3.82	Regional office	3.63	3.70
Northern	3.76	3.57	Berri	3.55	3.41
Wayville/Glenside	3.56	3.82	Mt Gambier	3.65	3.50
SAAS			Port Lincoln	3.79	3.49
Metro North	3.56	*	Whyalla	3.79	3.40
Metro South	3.53	3.72	Other country Hospital	3.67	3.49
Metro East	3.77	*	Mental Health	3.68	3.26
Metro West	3.54	*	Primary/ Community Health	3.55	3.50
Metro/other	3.65	3.50	**SAHS**		
Country Central	3.55	*	Regional office	3.79	3.40
Country North	3.41	3.93	FMC	3.78	3.52
Country South	3.55	3.65	Noarlunga	3.71	3.44
Country/other	3.60	3.62	Repatriation General	3.72	3.42
Emergency Op Centre	*	3.61	DASSA	3.57	3.41
CNAHS			Mental Health	3.59	3.32
Regional office	3.47	3.52	Primary/ Community Health	3.72	3.73
Glenside	3.61	3.53	**CYWHS**		
Hampstead	3.60	3.38	Regional Office	3.87	3.76
Lyell McEwin	3.80	3.76	WCH	3.83	3.55
Modbury	3.74	3.50	Mental Health	3.83	*
Queen Elizabeth	3.77	3.51	Primary/ Community Health	3.66	3.69
Royal Adelaide	3.81	3.57			
St Margaret's	3.66	3.19			
BreastScreen SA	3.90	3.49			
Mental Health	3.58	3.44			
Primary/Community Health	3.58	3.36			
Prison Health	3.34	*			
SA Dental	3.57	3.50			
SA Pathology	3.79	3.55			

* Means are not given when there were less than 10 respondents in a group

5.5.9. *Summary of differences in factors associated with Stress Recognition scores.* Among the health care staff streams the highest Stress Recognition scores were those of staff in Central Office, followed by direct care and indirect care staff. Among the professional groups pharmacists and doctors had the highest Stress Recognition scores. No occupational group had a mean score below 3.46. The work areas where Stress Recognition was greatest were pharmacy, obstetrics/gynaecology, peri-operative care and radiology/imaging. Staff in health promotion and ancillary/domestic staff had the lowest Stress Recognition scores. There was not a clear-cut association between organisational role and Stress Recognition. There was an association between age and Stress Recognition. In the health regions and services direct care staff had higher Stress Recognition scores than indirect care workers except in RDNS and SAAS where the reverse occurred. No regional facilities had a Stress Recognition mean of 4 or more. Among direct workers the facility with the highest Stress Recognition score was BreastScreen SA (3.90) while indirect care staff at SAAS, Central North (3.93) had the highest Stress Recognition scores of indirect care staff.

5.5.10. *International comparisons.* Benchmarking of the Stress Recognition scores of four groups of SA health staff was conducted by utilising the research findings of Sexton, Helmreich et al (2006). Details of the benchmarking process are given in appendix 5. SA scores have been converted from 5-point to 100-pont scales to enable direct comparison with Sexton and Helmreich's findings. Table 53 shows that SA staff in general wards and ambulatory clinics had lower Stress Recognition scores than their overseas counterparts. They also had a lower score than ICU staff in New Zealand. However SA staff in operating rooms and ICUs had higher Stress Recognition scores than staff in operating rooms in the UK, ICUs in the UK and ICUs in the USA.

Table 53: Mean Stress Recognition scores of overseas and South Australian staff in four work settings

Work setting	Stress Recognition mean scores*
General wards	
USA (11 sites, 1531 staff)	74.4
SA (1733 staff)**	68.5 (3.74)
Ambulatory clinics	
USA (11 sites, 281 staff)	66.7
SA (376 staff)	63.7 (3.55)
Operating rooms	
UK (2 sites, 385 staff)	54.7
SA (423 staff)	66.5 (3.66)
Intensive Care Units	
UK (106 sites, 4856 staff)	64.2
New Zealand (20 sites, 761 staff)	71.7
USA (53 sites, 3029 staff)	67.2
SA (429 staff)	69.3 (3.77)

* All overseas means from Sexton, Helmreich et al (2006)

** Scores were derived using Sexton Helmreich et al's formula for their 100-point scale: subtract 1 from scale score and multiply it by 25. The scale scores of SA respondents on 5-point scale used in this research shown in brackets

5.5.11. *Recommendations.*

R10. Identify and implement appropriate system-wide education programs to assist staff in addressing stressful situations. Such programs should present research findings of the effects of stressors (eg long hours, frequent interruptions) on error rates. The acceptability of acknowledging the effects of stressors and strategies that can be deployed to reduce its harmful effects should to be explored. Such education needs to be tailored to the needs of   both staff both lower and higher in organisational hierarchies. Policy and improvement initiatives from management can, by the practices they introduce and support, considerably reduce errors due to stress.

R11. Further investigate workplaces attracting high Stress Recognition scores to determine what if any intervention strategies may be needed. When assessing Stress Recognition a holistic assessment of the work place bearing in mind the type of work conducted there and the overall pattern of SAQ scores of its staff is desirable. High Stress Recognition scores in a facility with relatively high scores on other SAQ factors may indicate staff who are coping relatively well with stressors compared to a facility with high Stress Recognition scores and low scores on other factors. Consultation with staff in such a facility or profession would help identify problems contributing to high scores and should suggest strategies for reducing stress.

5.6 Perception of Management scores

5.6.1. *The Perception of Management Scale.* The Perception of Management Scale in the SAQ measures respondents' approval or disapproval of managerial action in their workplace (Sexton, Helmreich et al 2006).[8] Table 54 lists the items from the Direct Care form of the survey which contribute to the Perception of Management score. Some items in the Indirect Care survey form and the Central Office form (see appendix 1) had their wording slightly amended to reflect the different work situations of these two groups of health workers. For example, item 17 in the Indirect Care form read, "The levels of staffing in my area are sufficient to handle the number of patients/clients" and in the Central Office form read, "The levels of staffing in the health system are sufficient to handle the workload". The scores on the items may range from 1 (Disagree strongly) to 5 (Agree strongly). The four item scores are summed and divided by 4 to yield a respondent's Perception of Management score. A score of 4 or over reveals a favourable assessment of management, a score of 3.99-3 indicates a somewhat to slightly favourable assessment while a score of less than 3 shows an unfavourable assessment, increasingly so as the score becomes less. The mean Perception of Management score for the total survey population was 3.44 (standard deviation 0.82) indicating a slightly favourable appraisal.

Table 54: Items contributing to the Perception of Management score*

9. My administration supports my daily efforts.
16. My health service's management does not knowingly compromise the safety of patients/clients
17. The levels of staffing in my clinical area are sufficient to handle the number of patients/clients.
26. I am provided with adequate, timely information about events in my health service that might affect my work.

*Items are from the *Direct Patient Care Survey Form*

5.6.2. *Perception of Management scores of staff providing care directly or indirectly*. The Indirect Care staff had a higher mean score on the Perception of Management Scale. Their approval was approximately midway in the somewhat to slightly approving score range. The Direct Care group mean was lower at 3.44.

Table 55: Perception of Management scores of respondents answering direct and indirect survey forms

Statistics	Survey form	
	Direct Care	*Indirect Care*
Mean	3.44	3.52
Standard deviation	0.84	0.76

Scores range from 5 (high approval) to 1 (low approval)

5.6.3. *Perception of Management scores of Central Office staff.* Central Office staff often answered somewhat differently worded questions. There were also higher levels of neutral responses among Central Office staff suggesting that they may not have felt qualified to express a view on some issues. Such answers would have tended to lower the mean scores of group. The average Perception of Management score of the Central Office Group was 3.06 with a standard deviation of 0.69.

5.6.4. *Perception of Management scores of different professional and occupational groups.* The Perceptions of Management of the various occupational groups are listed in table 56. The most favourable assessment was by direct aged carers (3.64), "other health workers" (3.63) and administrative/clerical staff (3.53). The least favourable assessment was by pharmacists (3.21). Thus most occupational groups made ratings toward the lower end of the 3-4 score band.

Table 56: Mean Perception of Management scores for professional or occupational group respondents 'identify most closely with' *

Direct Care Surveys		**Indirect Care Surveys**	
(Majority of profession answered direct form)	*Mean score*	*(Majority of profession answered indirect form)*	*Mean score*
Direct care (aged care)	3.64	Administration/Clerical	3.53
Other health worker	3.63	Scientific/Research	3.46
Nursing/Midwifery	3.43	Other staff	3.45
Allied Health: therapy	3.42		
Ambulance/Paramedic	3.39		
Dentist	3.35		
Allied Health: diagnostic/technical	3.35		
Medical	3.31		
Pharmacy	3.21		

* Results are given for the survey form answered by the majority of the occupational group. Respondents who answered a different form from the majority of their group are not included in this table. Scores may range from 5 (high approval of management) to 1 (low approval).

5.6.5. *Perception of Management scores for main work area of respondents.* Table 57 indicates that Population Health made the most favourable assessment of management (3.71) followed by rehabilitation (3.68), regional/facility offices (3.67) and primary/community health (3.66). The majority of ratings (17 of 28) were in the lower half of the 3-4 score band. Pharmacy (3.09), emergency (3.20), and intensive care (3.23) had the least favourable Perceptions of Management.

Table 57: Mean Perception of Management scores for main work area of respondents *

Direct Care Surveys		Indirect Care Surveys	
(Majority of those working in area answered direct form)	*Mean Score*	*(Majority of those working in area answered indirect form)*	*Mean Score*
Rehabilitation	3.68	Population Health	3.71
Primary/Community Health	3.66	Regional /Facility office	3.67
Child &Adolescent Mental Health	3.64	Ancillary/Domestic	3.64
Client Home	3.64	Health promotion	3.56
Health/Medical clinic	3.61	Research/Education	3.56
Aged care	3.54	Other work area	3.44
Dental	3.48	Quality/Safety	3.43
Anaesthetics/Recovery	3.45	Laboratory	3.42
Surgery	3.44		
Many units/no specific unit	3.39		
General Ward	3.39		
Peri-operative	3.35		
Radiology/Imaging	3.33		
Obstetrics/Gynaecology	3.30		
Paediatrics	3.30		
Medicine (non-surgical)	3.27		
Psychiatry	3.25		
Intensive care (any type)	3.23		
Emergency	3.20		
Pharmacy	3.09		

* Results are given for the survey form answered by the majority of respondents from that work area. Respondents from an area which answered a different form from the majority are not included in this table. Scores may range from 5 (high approval of management) to 1 (low approval)

5.6.6. *Perception of Management scores of respondents with different organisational roles.* Executives in the direct and indirect streams made the most favourable assessments of management of the role groups in their stream. Indirect care executives had the most favourable views (4.07) followed by direct care executives (3.83). There was not an exact correspondence between level in the organisational hierarchy and favourable appraisal of management.

Table 58: Mean Perception of Management scores for respondents with different organisational roles

Organisational Role	Survey form	
	Direct Care	*Indirect Care*
Executive	3.83	4.07
Senior manager	3.41	3.70
Middle manager	3.47	3.49
Line manager	3.51	3.48
Team leader/ Supervisor	3.38	3.48
Staff member	3.44	3.51

Scores may range from 5 (high approval) to 1 (low approval)

5.6.7. *Perception of Management scores and age of respondents.* Among direct and indirect care staff the 60+ aged staff had the most favourable Perceptions of Management followed by the 45-59 year age groups (see table 59). Younger age groups gave lower approval ratings of management.

Table 59: Mean Perception of Management scores for respondents of different ages

Age group	Survey form	
	Direct Care	*Indirect Care*
15-29 years	3.39	3.50
30-44 years	3.35	3.47
45-59 years	3.50	3.54
60+ years	3.67	3.69

Scores may range from 5 (high approval) to 1 (low approval)

5.6.8. *Perception of Management scores in different health regions and services.* As table 60 shows the attitudes toward management of direct and indirect staff in the various regions were relatively similar with indirect worker groups tending to have higher scores. The most favourable direct and indirect appraisals of management occurred at RDNS.

Table 60: Perception of Management scores for respondents in different health services and regions

Survey form	Health Service/Region					
	RDNS	*SAAS*	*CNAHS*	*Country Health SA*	*SAHS*	*CYWHS*
Direct Care						
Mean	3.53	3.48	3.37	3.50	3.51	3.39
SD	0.80	0.81	0.85	0.84	0.82	0.84
Indirect Care *Mean* *SD*	3.63 0.79	3.46 0.85	3.47 0.75	3.58 0.78	3.58 0.74	3.39 0.77

Within regional and service facilities (see table 61) only one group of direct care providers (BreastScreen SA) and one group of indirect care staff (St Margaret's) had Perception of Management ratings higher than 4. Two direct care groups in SAAS (Metro East and Metro West) had Perception of Management scores less than 3.

Table 61: Perception of Management Mean scores for respondents from facilities within health services/regions

Service/Region and facility	Survey form		Service/Region and facility	Survey form	
	Direct care	*Indirect Care*		*Direct Care*	*Indirect Care*
RDNS			**Country Health SA**		
Southern	3.50	3.02	Regional office	3.76	3.57
Northern	3.48	3.60	Berri	3.12	3.37
Wayville/Glenside	3.88	3.96	Mt Gambier	3.33	3.33
SAAS			Port Lincoln	3.00	3.57
Metro North	3.80	*	Whyalla	3.33	3.33
Metro South	3.42	3.24	Other country Hospital	3.55	3.67
Metro East	2.87	*	Mental Health	3.37	3.11
Metro West	2.79	*	Primary/ Community Health	3.71	3.70
Metro/other	3.12	3.33	**SAHS**		
Country Central	3.70	*	Regional office	3.75	3.64
Country North	3.76	3.54	FMC	3.34	3.47
Country South	3.65	3.72	Noarlunga	3.65	3.61
Country/other	3.75	3.45	Repatriation General	3.71	3.66
Emergency Op Centre	*	3.43	DASSA	3.76	3.65
CNAHS			Mental Health	3.48	3.71
Regional office	3.45	3.74	Primary/ Community Health	3.71	3.90
Glenside	3.17	3.47	**CYWHS**		
Hampstead	3.71	3.36	Regional Office	3.75	3.55
Lyell McEwin	3.34	3.20	WCH	3.21	3.36
Modbury	3.22	3.55	Mental Health	3.59	*
Queen Elizabeth	3.34	3.50	Primary/ Community Health	3.70	3.41
Royal Adelaide	3.26	3.40			
St Margaret's	3.71	4.32			
BreastScreen SA	4.19	3.79			
Mental Health	3.15	3.54			
Primary/Community Health	3.78	3.77			
Prison Health	3.52	*			
SA Dental	3.48	3.57			
SA Pathology	3.46	3.38			

* Means are not given when there were less than 10 respondents in a group

5.6.9. *Summary of factors associated with Perception of Management scores.* Perception of Management was most favourable among indirect care staff followed by direct care workers and then Central Office staff. The professional groups with the highest Perception of Management scores were direct carer (aged care) (3.64) and "other health workers" (3.63) but these were the only occupations with ratings in the upper half of the 3-4 score band except for administration/clerical (3.53). Lowest approval of management was found among doctors (3.31) and pharmacists (3.21). Work areas associated with higher Perception of Management scores were population health (3.71), rehabilitation (3.68) and regional/facility offices (3.67). Lowest approval ratings were given by staff in emergency (3.20) and pharmacy (3.09). Executives in the direct and indirect care streams had higher Perception of Management scores than did other groups in their respective streams. Among indirect care workers there was an association between organisational role and positive Perception of Management but less so in direct care. There was some association between age and higher Perception of Management scores within the direct and indirect care groups. In the health regions and services, RDNS direct and indirect care staff had higher Perception of Management scores than their counterparts in other regions. Within regional facilities only two groups had Perception of Management scores above 4. These were direct care staff in BreastScreen SA and indirect care staff at St Margaret's.

5.6.10. *International comparisons.* Table 62 shows the findings from the benchmarking of four groups of SA health care staff with staff in equivalent overseas health care settings. Appendix 5 gives the details of this benchmarking process which utilised the research results of Sexton, Helmreich et al (2006). SA Perception of Management scores were converted from 5-point to 100-point scales to enable direct comparison with the international data. Table 62 shows than SA staff in general wards, ambulatory clinics, operating rooms and ICUs in three countries gave higher approval ratings of management than did their overseas counterparts.

Table 62: Mean Perception of Management scores of overseas and South Australian staff in four work settings

Work setting	Perception of Management mean scores*
General wards	
USA (11 sites, 1531 staff)	38.3
SA (1733 staff)**	60.0 (3.40)
Ambulatory clinics	
USA (11 sites, 281 staff)	55.3
SA (376 staff)	65.4 (3.61)
Operating rooms	
UK (2 sites, 385 staff)	47.6
SA (423 staff)	62.1 (3.48)
Intensive Care Units	
UK (106 sites, 4856 staff)	44.6
New Zealand (20 sites, 761 staff)	45.3
USA (53 sites, 3029 staff)	54.1
SA (429 staff)	56.3 (3.25)

* All overseas means from Sexton, Helmreich et al (2006)

 ** Scores were derived using Sexton Helmreich et al's formula for their 100-point scale: subtract 1 from scale score and multiply it by 25. The scale scores of SA respondents on 5-point scale used in this research shown in brackets

5.6.11. *Recommendations.*

R12. Take action to improve communication and access to management in areas and facilities with less favourable Perception of Management scores. Respondents' Perception of Management as canvassed in this scale may have referred to management in their facility, their health area or service and/or Central Office of the Department of Health and the focus no doubt varied according to respondent. From the suggestions staff made for improving patient safety, it is clear that their major preferences are for management to be accessible, to listen to problems, to support staff initiatives and to tackle problems eg managing poorly performing staff and handling staff conflict. Staff look to managers to provide leadership and vision.

R13. Increase feedback to staff. Review mechanisms for management of staff performance eg the management of a complaint or concern about a clinician. Provide feedback to staff following their notification of adverse events. Increase the range of avenues for communication between management and staff within health regions and services eg emails, newsletters, presentations, discussion forums, particularly in areas with few such mechanisms.

R14. Identify areas and facilities attracting very good or less favourable ratings on the Perception of Management scores to determine lessons learned and opportunities for improvement.

R15. Review opportunities for targeted training to senior staff in leadership and management. According to staff suggestions some managers are perceived as requiring managerial training. In-service education courses aimed at enhancing managerial skills could include ways to improve governance and communication, promote the vision and goals of the health system and facility and handle conflict situations.

5.7 Working Conditions scores

5.7.1. *The Working Conditions Scale.* The SAQ's Working Conditions Scale measures respondents' perception of the quality of their work environment and the logistical support provided eg staffing, equipment etc. (Sexton, Helmreich et al 2006).[8] Table 63 lists the items from the Direct Care form of the survey which contribute to the Working Conditions score. Some of the equivalent items in the Indirect Care survey form and the Central Office form (see appendix 1) had their wording slightly amended to reflect the different work situations of these two groups of health care staff. For example, item 7 in the Indirect Care form read, "All the information for diagnostic and therapeutic decisions is routinely available to clinical staff" and the Central Office form said "All the necessary information for strategic decision making is routinely available to me". The scores on the items may range from 1 (Disagree strongly) to 5 (Agree strongly). The four item scores are summed and divided by 4 to yield a respondent's Working Conditions score. A score of 4 or over reveals a favourable assessment of the Working Conditions, a score of 3.99-3 indicates a somewhat to slightly favourable assessment while a score of less than 3 shows an unfavourable assessment, increasingly so as the score becomes less. The mean Working Conditions score for the total survey population was 3.49 (standard deviation 0.86), a rating midway on the 3-4 score band.

Table 63: Items contributing to Working Conditions score*

6. This health service does a good job of training new personnel.
7. All the necessary information for diagnostic and therapeutic decisions is routinely available to me.
22. My health service constructively deals with problem professional staff and employees.
43. Trainees in my discipline are adequately supervised.

*Items are from the *Direct Patient Care Survey Form*

5.7.2. *Working Conditions scores of staff providing care directly or indirectly.* The direct care providers were more approving of their Working Conditions than were indirect care staff. The direct (mean = 3.57) and the indirect groups (mean = 3.43) were around the middle of the 3-4 score band. There was little difference between the standard deviations of the groups.

Table 64: Working Conditions scores of respondents answering direct and indirect survey forms

Statistics	Survey form	
	Direct Care	*Indirect Care*
Mean	3.57	3.43
Standard deviation	0.87	0.82

Scores range from 5 (high evaluation) to 1 (low evaluation)

5.7.3. *Working Conditions scores of Central Office staff.* Central Office staff often answered somewhat differently worded questions. There were also higher levels of neutral responses among Central Office staff suggesting that they may not have felt qualified to express a view on some issues. Such answers would have tended to lower the mean scores of group. The mean Working Conditions score of Central Office staff was 2.88 with a standard deviation of 0.78.

5.7.4. *Working Conditions scores for main work areas of respondents.* Table 65 reveals that direct aged carers (3.76) and "other health workers" (3.66) made the highest Working Conditions ratings. Almost all the other direct care groups had Working Conditions scores above the mid-point of the 3-4 score band. Pharmacy and the indirect care groups gave slightly favourable ratings.

Table 65: Mean Working Conditions scores for professional or occupational group respondents 'identify most closely with' *

Direct Care Surveys		Indirect Care Surveys	
(Majority of profession answered direct form)	*Mean score*	*(Majority of profession answered indirect form)*	*Mean score*
Direct care (aged care)	3.76	Other staff	3.44
Other health worker	3.66	Administration/Clerical	3.38
Ambulance/Paramedic	3.58	Scientific/Research	3.38
Dentist	3.57		
Medical	3.56		
Nursing/Midwifery	3.55		
Allied Health: therapy	3.54		
Allied Health: diagnostic/technical	3.50		
Pharmacy	3.42		

* Results are given for the survey form answered by the majority of the occupational group. Respondents who answered a different form from the majority of their group are not included in this table. Scores may range from 5 (high evaluation of working conditions) to 1 (low evaluation)

5.7.5. *Working Conditions scores for the main work areas of respondents.* Table 66 indicates that the most favourable assessments of Working Conditions were made by staff working in Client and Adolescent Mental Health (3.80) or clients' homes (3.78). Thirteen of the main work areas were assessed as falling in the lower half of the 3-4 score band. The least favourable rating was given to Quality and Safety staff (3.20).

Table 66: Mean Working Conditions scores for main work area of respondents*

Direct Care Surveys		Indirect Care Surveys	
(Majority of those working in area answered direct form)	*Mean Score*	*(Majority of those working in area answered indirect form)*	*Mean Score*
Child & Adolescent Mental Health	3.80	Ancillary/Domestic	3.67
Client Home	3.78	Population Health	3.54
Rehabilitation	3.70	Research/Education	3.46
Primary/Community Health	3.67	Regional /Facility office	3.43
Dental	3.65	Other work area	3.38
Health/Medical clinic	3.64	Laboratory	3.36
Aged care	3.63	Health promotion	3.30
Obstetrics/Gynaecology	3.61	Quality/Safety	3.20
Anaesthetics/Recovery	3.58		
Paediatrics	3.56		
Surgery	3.56		
General Ward	3.54		
Many units/no specific unit	3.52		
Medicine (non-surgical)	3.49		
Radiology/Imaging	3.45		
Emergency	3.43		
Peri-operative	3.37		
Pharmacy	3.36		
Intensive care (any type)	3.34		
Psychiatry	3.30		

* Results are given for the survey form answered by the majority of respondents from that work area. Respondents from an area which answered a different form from the majority are not included in this table. Scores may range from 5 (high evaluation of working conditions) to 1 (low evaluation)

5.7.6. *Working Conditions scores of respondents with different organisational roles.* In the direct and indirect health streams executives appraised Working Conditions more favourably than did staff within their stream who had other roles (table 67). Direct care executives (4.04) had higher Working Conditions scores than did indirect executives (3.75). Middle managers in indirect care made the least favourable assessments. Among direct care providers the least favourable view were held by line managers and team leaders.

Table 67: Mean Working Conditions scores for respondents with different organisational roles

Organisational Role	Survey form	
	Direct Care	*Indirect Care*
Executive	4.04	3.75
Senior manager	3.73	3.48
Middle manager	3.61	3.36
Line manager	3.55	3.50
Team leader/ Supervisor	3.55	3.40
Staff member	3.56	3.42

Scores may range from 5 (high evaluation) to 1 (low evaluation)

5.7.7. *Working Conditions scores and age of respondents.* Table 68 indicates that direct and indirect care staff in the oldest age group made the most favourable evaluations of their Working Conditions followed by the 45-59 year age groups. Direct care groups of all ages gave more favourable ratings of their Working Conditions than their indirect care counterparts.

Table 68: Mean Working Conditions scores for respondents of different ages

Age group	Survey form	
	Direct Care	*Indirect Care*
15-29 years	3.55	3.41
30-44 years	3.48	3.33
45-59 years	3.62	3.47
60+ years	3.81	3.63

Scores may range from 5 (high evaluation) to 1 (low evaluation)

5.7.8. *Working Conditions scores in different health areas and regions.* In all regions direct care staff made more favourable assessments of their Working Conditions than did their indirect care counterparts. RDNS had more favourable assessments from both their direct and indirect care staff than did any other service (see table 69).

Table 69: Working Conditions scores for respondents in different Health Services and Regions

Survey form	Health Service/Region					
	RDNS	*SAAS*	*CNAHS*	*Country Health SA*	*SAHS*	*CYWHS*
Direct Care						
Mean	3.75	3.67	3.47	3.61	3.66	3.59
SD	0.82	0.84	0.88	0.89	0.81	0.82
Indirect Care *Mean* *SD*	3.70 0.98	3.53 0.93	3.34 0.83	3.51 0.81	3.51 0.78	3.31 0.77

As table 70 shows there were only two service or regional facilities where staff rated their Working Conditions above 4. These were direct care providers at BreastScreen SA and SAAS Country/other. At Post Lincoln direct care staff assessed their Working Conditions unfavourably with a mean rating of 2.83.

Table 70: Mean Working Conditions scores for respondents from facilities within health services/regions

Service/Region and facility	Survey form		Service/Region And facility	Survey form	
	Direct care	*Indirect Care*		*Direct Care*	*Indirect Care*
RDNS			**Country Health SA**		
Southern	3.72	3.08	Regional office	3.88	3.18
Northern	3.74	3.70	Berri	3.25	3.21
Wayville/Glenside	3.88	3.10	Mt Gambier	3.49	3.31
SAAS			Port Lincoln	2.83	3.45
Metro North	3.57	*	Whyalla	3.48	3.17
Metro South	3.59	3.12	Other country Hospital	3.68	3.65
Metro East	3.02	*	Mental Health	3.48	3.17
Metro West	3.27	*	Primary/ Community Health	3.73	3.64
Metro/other	3.37	3.23	**SAHS**		
Country Central	3.83	*	Regional office	3.83	3.51
Country North	3.98	3.81	FMC	3.54	3.51
Country South	3.71	3.75	Noarlunga	3.77	3.43
Country/other	4.06	3.61	Repatriation General	3.85	3.53
Emergency Op Centre	*	3.48	DASSA	3.88	3.52
CNAHS			Mental Health	3.40	3.45
Regional office	3.25	3.34	Primary/ Community Health	3.82	3.78
Glenside	3.20	3.28	**CYWHS**		
Hampstead	3.74	3.44	Regional Office	3.85	3.26
Lyell McEwin	3.50	3.12	WCH	3.51	3.27
Modbury	3.47	3.35	Mental Health	3.61	3.85
Queen Elizabeth	3.78	3.20	Primary/ Community Health	3.76	3.41
Royal Adelaide	3.43	3.32			
St Margaret's	3.85	3.98			
BreastScreen SA	4.38	3.79			
Mental Health	3.24	3.29			
Primary/Community Health	3.59	3.63			
Prison Health	3.42	*			
SA Dental	3.63	3.68			
SA Pathology	3.71	3.37			

* Means are not given when there were less than 10 respondents in a group

5.7.9. *Summary of factors associated with Working Conditions scores.* The mean Working Conditions scores of direct care providers were higher than those of indirect care staff. Both were higher than the mean score of Central Office staff. The professional groups with the highest Working Conditions scores were direct care (aged care) (3.76) and "other health workers" (3.68). Administration/clerical and science/research had the lowest Working Conditions scores (both 3.38). The primary work areas considered to have the best Working Conditions were Child and Adolescent Mental Health (3.80), clients' homes (3.78) and rehabilitation (3.70). Quality and safety was the work area attracting the lowest mean rating (3.20). Executives had more favourable views than other groups in their respective streams. Older staff in direct and indirect care viewed their Working Conditions more favourably than did younger staff. In all regions and services direct care groups rated their Working Conditions more favourably than did their indirect care counterparts. The highest scoring direct and indirect staff in the regions and services worked at RDNS. The only regional facilities that had Working Conditions scores over 4 were the direct care staff at BreastScreen SA and SAAS country/other.

5.7.10. *International comparisons.* The benchmarking of the Working Conditions scores of four groups of SA health staff against the international results published by Sexton, Helmreich et al (2006) are shown in table 71. Details of the benchmarking process are given in appendix 5. The SA Working Conditions scores were converted from 5-point to 100 point scales to enable comparison with Sexton and Helmreich's data. SA staff in general wards, ambulatory clinics and operating rooms all gave more favourable ratings of their working conditions than their American and British counterparts. In the three comparisons with ICU units the SA staff were more approving of their working conditions than New Zealand and American staff. However the difference between the SA and American ratings was very slight indeed. The Working Conditions ratings of British ICU staff were higher than those of the SA group.

Table 71: Mean Working Conditions scores of overseas and South Australian staff in four work settings

Work setting	Working Conditions mean scores*
General wards	
USA (11 sites, 1531 staff)	49.2
SA (1733 staff)**	63.7 (3.55)
Ambulatory clinics	
USA (11 sites, 281 staff)	61.6
SA (376 staff)	65.5 (3.62)
Operating rooms	
UK (2 sites, 385 staff)	57.5
SA (423 staff)	63.4 (3.54)
Intensive Care Units	
UK (106 sites, 4856 staff)	59.6
New Zealand (20 sites, 761 staff)	53.7
USA (53 sites, 3029 staff)	58.3
SA (429 staff)	58.5 (3.34)

* All overseas means from Sexton, Helmreich et al (2006)

** Scores were derived using Sexton Helmreich et al's formula for their 100-point scale:
subtract 1 from scale score and multiply it by 25. The scale scores of SA respondents
on 5-point scale used in this research shown in brackets

5.7.11. *Recommendations.*

R17. Further investigate areas, facilities and professional groups with less favourable Working Conditions scores to identify areas/groups requiring follow up. Some attracted relatively low ratings of Working Conditions, ranged from 4.38 to 2.83 throughout the health system. While staff suggestions on improving patient safety identified deficiencies in Working Conditions related to staffing and poor infrastructure and equipment there may be other Working Conditions issues which were not seen as related to patient safety hence not mentioned by respondents. These warrant investigation.

5.8   Subsidiary scores derived from the SAQ

As only 30 of the SAQ items are utilised in the calculation of the six factor scores the remaining 33 items in the questionnaire were grouped in terms of their content to yield five subsidiary measures with a possible score range of 1-5, as described in detail in appendix 4. On the first of these measures, *Safety Practices in My Workplace*, direct and indirect care staff had similar mean scores of 3.41 and 3.39 respectively. Direct care providers (3.85) had much higher scores on *Communication* than did indirect care staff (3.58). The two groups had similar scores for *Personal Knowledge and Practices Regarding Safety*; the indirect care staff mean was 3.59 and the direct care mean 3.53. The direct care group (3.92) had higher scores than did indirect staff (3.85) for *Error Reporting in My Workplace*. The mean scores of the direct (3.80) and indirect staff (3.79) for *Social Support in My Workplace* were almost identical. As detailed in appendix 4 Central Office staff had lower mean scores than the other provider streams on the five subsidiary measures. Lack of clinical knowledge and experience of many Central Office staff seemed to be a significant factor affecting their results.

The results from the subsidiary measures if used in conjunction with SAQ factor scores can contribute additional understanding for those attempting to identify safety problems in healthcare workplaces and those planning patient safety education programs and the monitoring of their effects. Additionally responses to individual questionnaire items can be used to complement such knowledge particularly if a specific issue is being targeted eg hand washing practices. Appendix 8 provides data on the survey population's answers to each of the 63 individual items from the questionnaire.

5.9   Staff suggestions for improving patient safety

5.9.1. *The content analysis of health care staff suggestions for improving patient safety.* The final question in the survey requested respondents to write their three top suggestions for improving patient safety, and half of all respondents did so. We reviewed the over 20,000 suggestions that staff made. As content analysis is a very time intensive process a sample of 10% of respondents was randomly selected for content analysis. If one of the questionnaires selected was from the group of electronic survey forms that was incompletely saved due to an IT problem the questionnaire with the next identification number was substituted for it. This sample of 1662 survey forms was representative of the size of the three groups of staff who answered the various forms of the survey viz 1047 direct care staff, 511 indirect care workers and 104 Central Office staff. The responses to the questions were coded using a schema developed in Braithwaite and Westbrook's previous research into patient safety. The method has been shown to have high inter-rater reliability. The nine coding categories are shown in table 72 with examples taken from the survey participants' answers. They are not arranged in order of frequency of citation by survey respondents.

Table 72: Content analysis coding categories for answers to item "What are your top three recommendations for improving patient safety?"

Categories
1. *Improve incident reporting*
Mandatory reporting
Follow up reported incidents
Report incidents, analyse causes and ensure no repetition
Make incident reporting a quicker affair and more incidents will be reported
Report near misses
No blame culture
Increase error reporting from medical staff
Ensuring staff have easy access to reporting systems
AIMS reporting ASAP after incident

2. *Increase staff education and supervision*

Increased staff availability to teach and guide

Appropriate supervision of junior staff

Regular in-service courses on procedures

Structured education for all staff not just graduates

Continued training to capture new/revised procedures and staff

Ensure staff are trained appropriately for optimal safety

Promote and provide strong and evidence based supervision models across all areas of SA Health

Education (mandatory education/training on patient safety issues)

Education- ongoing commitment to education- formal study days to address knowledge deficits

Regular education on best practice in patient safety

3. *Implementation of guidelines and reviews*

All staff involved in audits to improve safety

Set performance level and evaluate

OH&S audits

Reviewing work practices annually

Medical Department participation in incidents review

Reviewing adverse events and near misses with the team

Performance reviews more often

Rigid risk assessment

Surveys of risks, like this survey, in all quality and safety procedures

4. *Better leadership/management*

Managers being more accessible

Address how the organisation handles staff conflict

Sound clinical leadership

Executives listening to risks and responding

Provide management with management training

Managing poor performance by staff

Having a vision and making it known to all staff in hospital

Clear governance processes from Department of Health

Support for patient safety culture/improvement work from the executive

5. *Improve communication and teamwork*

Encourage teamwork, support of each other

Working as a team, even between departments

Enhanced communication between health professionals

Listen to staff who actually do the work

Seeing all contributors to patient's care as part of the team

Better communication between medical/nursing staff

Actual team work (not just talk about it)

Better team meetings

Multidisciplinary teams-care planning

Communication, communication, communication

6. Improve staffing (numbers & quality) and staff conditions

Staffing levels appropriate to patient care needs

Ensure 2+ senior staff rostered on all shifts

Worksafe hours should apply to medical staff in theatre

Ensuring adequate staffing each shift to avoid mishap

Two midwives on every shift for maternity

Limit paperwork for clinicians

Adequate staff/skill mix of personnel to create confident team every shift

Turnover of staff and hence trainees significantly contributes to errors

Adequate rest between shifts

Reasonable working rosters

7. *Acquire better equipment, infrastructure*

Upgrade some of the medical equipment

Equipment that is safe, well maintained and functional

Providing adequate facilities for patients i.e. making sure there are enough beds and clean equipment

Appropriate work spaces for staff

Use disposable equipment where possible

Increase funding levels for more appropriate equipment and more up to date facilities at ward level

Availability of wound care products and gloves

Support the adoption of wireless enabled technology for point of care applications

Increase significantly accessibility to computers for ward staff

8. *Increase patient focus*

Redirect some resources back to patient needs

More consumer involvement

Appointment of patient advocates in general hospitals

Education of patients re their illness/operation

ICU patients kept in ICU not overflow areas which are dangerous and overcrowded

Staff listening to patients more and not being judgemental

Appropriate ward placement

Meetings with family members to raise concerns, provide support

Regular surveys of patients

Nursing staff being more aware of patients' needs in home environment

9. *Target specific issues*

Major surgical cases should be performed early in the clinical lists

Reduce visiting hours they make it hard to work around

Filling out X-ray request forms appropriately

Patient health diet plan

Infection control education for the public

More emphasis on health promotion and prevention issues

Faster referral for physio and speech pathology

Nurse training to be back in hospital

Start an ideas register with names and incentives

5.9.2. *Results of the content analysis.* Slightly less than half (47.5%) of survey participants whose survey forms were selected for content analysis answered the question requesting suggestions. The highest response rate was among direct care providers (54.5%), followed by Central Office staff (39.4%) and indirect care personnel (34.8%). In all groups the average number of suggestions made by a respondent was 2.6. Some respondents made several suggestions which were coded as belonging to the same category eg improve staffing and staffing conditions. Overall 2047 suggestions for improving patient safety were made by those in the 10% random sample selected for analysis, indicating that there are over 20,000 comments in the entire database.

The most frequently made suggestions concerned staffing; increasing staff numbers, improving the mix of staff on shifts, employing better quality staff and improving staff working conditions. Over a quarter of all suggestions fell into this category (26.3%). Increasing staff education, providing more educational opportunities for staff and improving staff supervision was the second most frequently made suggestion (14.1% of all suggestions). This was closely followed by improving communication and teamwork (13.4%) and specific issues (12.9%). Specific issues and projects were the focus of 12.9% of suggestions submitted. Acquiring new or better equipment and infrastructure was suggested in 11.3% of responses. Increasing the focus on patients was mentioned in 7.0% of suggestions. Improving management and governance was raised in 5.3% of suggestions, implementing guidelines and reviews in 5.2% and improving incident reporting in 4.4%.

Table 73 ranks the frequency of the types of suggestions made by the three staff streams and the total survey sample. The relative percentages of the suggestions from direct and indirect care staff were fairly similar. The greatest discrepancy between their rankings was for implementing guidelines and reviews (ranked 7 by direct and 9 by indirect care staff). The Central Office staff rankings differed from those of the other two staff streams. Central Office staff made a greater proportion of suggestions about implementing guidelines and reviews (ranked 4) and placed much less emphasis to acquiring better equipment and infrastructure (ranked 9 by Central Office staff and 5 by other groups). Central Office personnel made most of their suggestions about improving communication and teamwork (ranked 3 and 4 by direct and indirect staff respectively). Central Office staff gave somewhat more emphasis to improving incident reporting (ranked 7) and targeted specific issues less than the other groups did. Central Office gave somewhat less emphasis to staffing improvements than did direct and indirect care staff.

Table 73: Ranks* of percentages of safety suggestions from direct, indirect and Central Office staff (from values in table 75)

Safety suggestions	Ranks of staff group suggestions			
	Direct care	*Indirect care*	*Central Office*	*Total group*
Improve staffing	1	1	2.5	1
Increase education & supervision	2	2	2.5	2
Improve communication & teamwork	3	4	1	3
Target specific issues	4	3	7	4
Acquire equipment/infrastructure	5	5	9	5
Increase patient focus	6	6	5	6
Better management	8	7	7	7
Implement guidelines & reviews	7	9	4	8
Improve incident reporting	9	8	7	9

* Ranked from 1 (Most frequent suggestion of group) to 9 (least frequent suggestion)

5.9.3. *Summary of results of content analysis of staff suggestions for improving patient safety*. Overall slightly less than half the survey respondents wrote suggestions about how they believed patient safety could be improved. Direct care staff were much more likely to give suggestions and indirect staff least likely to do so. Some of the latter wrote on their questionnaires that this question was not applicable to them suggesting that some indirect care staff do not see patient safety as an issue that involves them. Staff from the three streams who actually made suggestions made on average the same number of suggestions. Suggestions about improving staffing rates, quality and working conditions dominated the responses followed by suggestions for more education and supervision of staff. The relative frequency of suggestions from Central Office staff differed somewhat from those of the other staff groups; particularly the greater emphasis in guidelines and reviews by Central Office staff and their lesser interest in better equipment and infrastructure. Incident reporting was not seen by any staff group having a major role in improving patient safety.

6   DISCUSSION

6.1   Introduction

This survey has investigated the degree to which factors validated by researchers as contributing to the safety of patients are found in a large health system. The survey is unique in that it has done this by examining the views of 16,619 health care staff, over half the workforce in the South Australian health system working during the time of the survey. This is the largest such survey conducted in an Australian, and probably any other, health system. The major tool used in the survey, the SAQ, has been shown to provide reliable and valid measures of the perceived safety climate of health care settings and of the levels of Teamwork Climate, Perception of Management, Stress Recognition, Job Satisfaction and Working Conditions associated with positive safety cultures (Sexton, Helmreich et al 2006).[8]

The survey investigated not only direct care professionals, which is usual in such studies, but also the large section of the health workforce involved in the provision of indirect care and workers in the central administration of the health system. By providing slightly different forms of the survey questionnaire for the three staff streams, their somewhat different work situations were acknowledged and their participation in the survey encouraged.

6.2   An overview of the survey findings

In the earlier sections of this report the research findings have been discussed in detail in terms of each of the six individual SAQ factors. When the scores of all participants in the survey were combined, the scale achieving the highest mean score was Job Satisfaction (3.90). This was followed by the centrally important scale in the questionnaire Safety Climate (mean = 3.88) and Teamwork Climate (mean = 3.82). All these scores are in the upper section of the 3-4 score band indicating that on average respondents were somewhat in agreement that their workplaces possessed these characteristics. Stress Recognition scores were also within this upper band (mean = 3.67). Working Conditions were rated at midway in the 3-4 band (mean = 3.49) and Perception of Management received a slightly lower rating (mean = 3.44). Thus while none of the mean scores on the six SAQ scales reached the 4-5 band, which indicates stronger agreement, none were below 3 which would reveal unfavourable or negative attitudes.

Overall the findings are encouraging in that the staff in the SA health system held somewhat positive attitudes on four of the six SAQ scales and attitudes toward the middle of the 3-4 score band on the other two scales. Staff generally have positive attitudes towards patient safety and support for the SA initiatives to improve it. There is of course scope for improvement of scores, of a shift to more favourable perceptions of the safety of the health system, more so in some areas eg Perception of Management, than others eg Job Satisfaction.

Staff's scores on the five subsidiary measures derived from grouping the items not contributing to the six SAQ factor scores revealed a similar pattern. For the total survey population the mean score for *Error Reporting in My Workplace* was 3.90, for *Social Support in My Workplace was* 3.80, for *Communication* was 3.77, for *Personal Knowledge and Practices Regarding Safety* was 3.55, and for *Safety Practices in My Workplace* was 3.41. These indices lack the psychometric robustness of Sexton, Helmreich et al's factor scores but they provide additional complementary information for assessing attitudes toward patient safety.

6.3   International benchmarking of the South Australian data

Before moving to consider the complex patchwork of research results from various sections of the SA health system eg primary work place areas and facilities exhibiting excellence and those requiring attention, it is useful to consider the overall SA findings in terms of the performance of other health systems. As discussed in appendix 5, Sexton, Helmreich et al (2006) provided data from six sets of studies from the USA, the UK and New Zealand which were used to benchmark the SA findings. The SA work areas which we used in the benchmarking studies were not among the work areas achieving the most favourable SAQ scores in the SA survey. Nevertheless the SA wards, ICUs, clinics and operating theatres used in the benchmarking exercise had higher scores on the majority of measures in all the six benchmarking comparisons. In effect we compared the number of times that the SA wards, ambulatory care, operating theatre and ICUs had more favourable attitudes than their international counterparts.

A summary of these results is shown in chart 1. The indications are, therefore, that the SA health system is performing relatively well in addressing patient safety. This provides sufficient evidence for us to suggest firmly that South Australia is on the right track in its quest to tackle patient safety, but there is considerable scope for improvement, and further work to be done.

Chart 1: Number of times in six benchmarking comparisons that South Australian and international groups had higher scores on SAQ factors
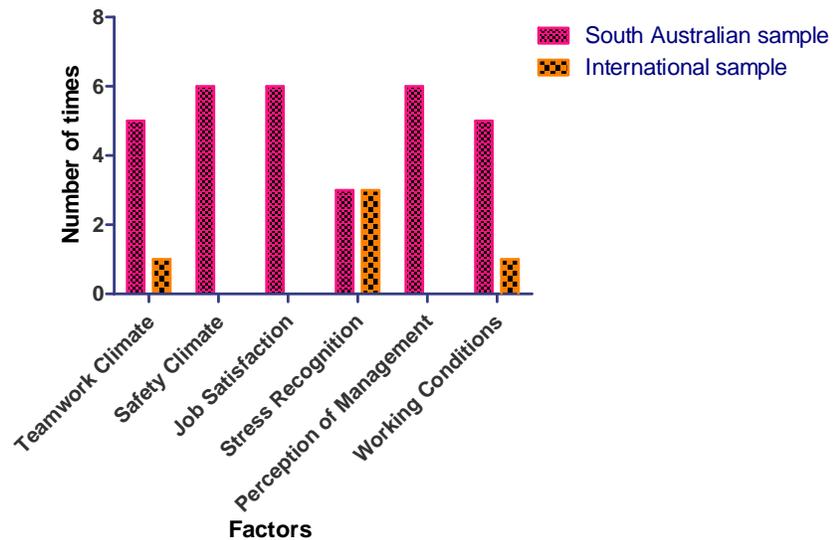
6.4 Direct care, indirect care and Central Office SAQ scores

What factors are associated with safer heath cultures within the SA health system? A wide range of demographic variables were investigated as detailed throughout the results section. Initially the relation between health stream membership (direct care, indirect care, and Central Office) and safety attitudes was explored. Chart 2 indicates the absolute and relative performance of the direct and indirect care staff streams on the SAQ scales. It reveals the similar pattern of scores for the two groups. Both these staff streams made their three highest ratings on the Job Satisfaction, Safety Climate and Teamwork Climate Scales. However the direct care providers had, with one exception, higher scores on all scales than did their indirect care counterparts; indirect staff held somewhat more positive attitudes toward management than did direct care staff.

Chart 2: SAQ factor scores of health stream membership
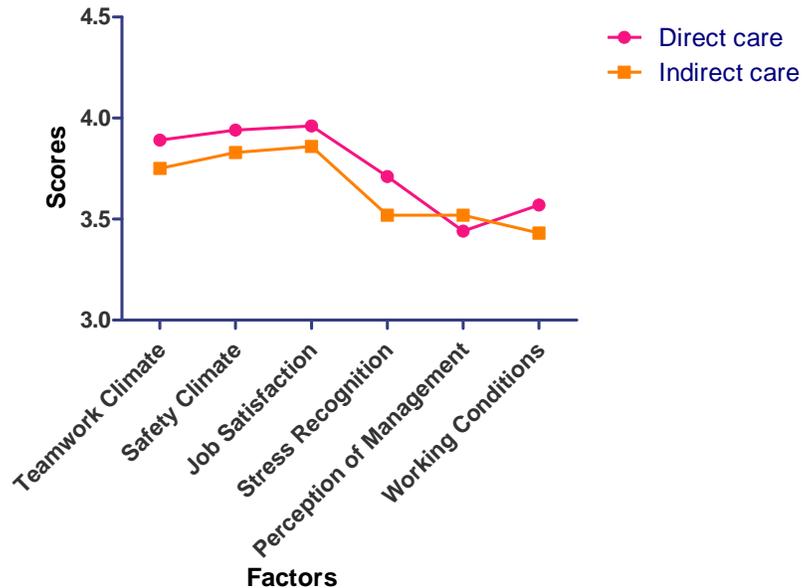
There appears to be most vision, as measured by favourable attitudes toward safety culture, among the direct care providers in the SA health system. In the various facilities direct care staff were those most likely to have mean SAQ scores higher than 4. There is some support for the notion that higher morale among direct care staff in a facility influences that of indirect care staff in that workplace. The evidence for this is that while quite a number of indirect care staff groups in various facilities had mean SAQ scores over 4 this rarely occurred unless the direct care group in the same facility had a score of over 4. However many direct care groups in different work areas had mean scores of over 4 while their indirect care counterparts did not.

6.5   Professional groups' SAQ scores

We examined the attitudes of the major professional groups, viz administration/clerical, medical, nursing/midwifery and combined allied health therapy and allied health diagnostic/technical. Section 5 of the report provides information on all professions' relative attitudes. Appendix 7 contains statistical comparisons of the SAQ scores of these four major health occupations which are graphed in chart 3.

Chart 3: SAQ factor scores of professions from all provider streams
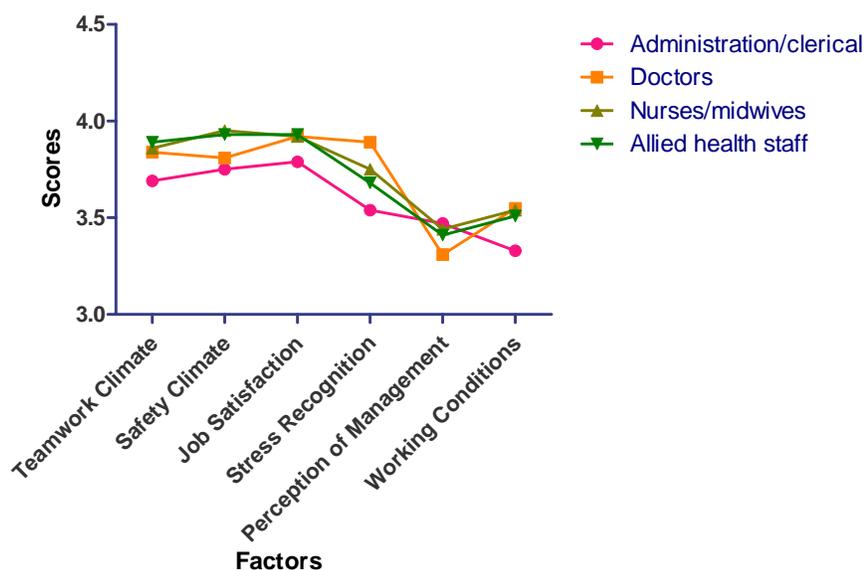
The scores of the four professions on all SAQ factors were in the 3-4 score band indicating somewhat to slightly favourable mean attitudes. However the administrative/clerical group had lower scores on all factors except Perception of Management than did the three direct care professional groups. All professions had lower mean ratings on the Perception of Management scale than they had on the other factor scales. Doctors' Perceptions of Management scores were significantly less favourable than those of all other groups. On Teamwork Climate, Job Satisfaction and Working Conditions, doctors, nurses/midwives and allied health staff did not differ significantly. Doctors considered that the Safety Climate was poorer than did nurses/midwives and allied health staff. Doctors' Stress Recognition scores were significantly higher than those of nurses/midwives who had higher Stress Recognition scores than did allied health professionals. The actual work experiences and types of health incidents encountered by the various health professions in the survey appear to be associated with their scores on the Stress Recognition Scale.

6.6   SAQ scores in primary work areas

Certain primary work areas in the health system were characterised by the high SAQ ratings given to them by staff working there. Scores of 4 or more on the Teamwork Climate, Safety Climate and Job Satisfaction Scales were assigned to rehabilitation, primary and community health care and clients' homes as workplaces. Child and Adolescent Mental Health and health/medical clinics had Safety Climate and Job Satisfaction scores over 4. Dental work areas and direct care (aged care) had high Safety Climate scores. Pharmacy work areas were characterised by low ratings on all SAQ scores except Stress Recognition on which they had the highest score of all primary work areas. Staff working in these areas, and some others with high Stress Recognition scores such as peri-operative care, and obstetrics/gynaecology, anaesthetics/recovery, do by the nature of their work encounter more potentially stressful safety issues than is the case in other areas. So it is not surprising that there is heightened recognition of the dangers of stress among staff in such units. These and other findings reported in section 5 indicate a need to remedy problems facing pharmacists whose work involves attempts to eliminate a major health safety problem, medication error. It is also important to recognise that similar patterns of low SAQ scores in various workplaces and facilities, as discussed here and in 6.8, may have different causes and require different interventions.

6.7   SAQ scores in health services and regions

The SAQ mean scores of respondents in the six health services and regions are discussed in detail in section 5. Those of direct health care providers are graphed in chart 4. As shown direct care staff in some regions had scores above 4 in the highest SAQ score band. For example RDNS direct care staff had such scores on the Teamwork Climate, Safety Climate and Job Satisfaction scales. Safety Climate scores were above 4 in Country Health SA. Job Satisfaction scores were in the highest score band in all regions except CNAHS. No direct care service group scored above 4 on the Stress Recognition, Perception of Management or Working Conditions factors. SAAS had the highest Job Satisfaction rating. CYWHS had the highest Stress Recognition score. RDNS had higher ratings than any service or region on four factors; Teamwork Climate, Safety Climate, Perception of Management and Working Conditions. CNAHS had the lowest scores of the regions on all scales except Stress Recognition.

Chart 4: SAQ factor scores of health services and regions - direct care
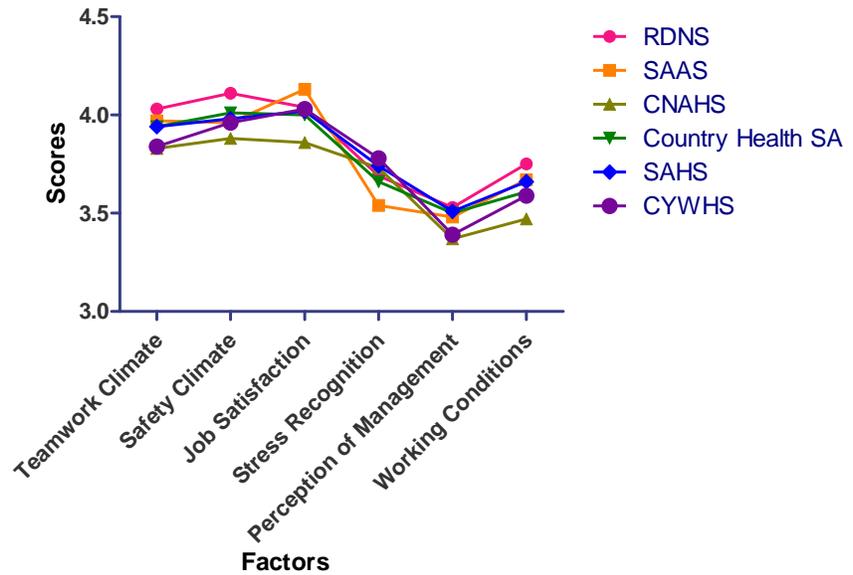
Chart 5 shows the mean SAQ factor scores of indirect care staff in the six health services and regions. No indirect care group in any region had mean scores on any factor that were above 4 or less than 3. RDNS's indirect staff held more positive attitudes than other regions on five SAQ scales, CYWHS held more negative attitudes than other regions on three of the six factors.

Chart 5: SAQ factor scores of Health Services and Regions - indirect care
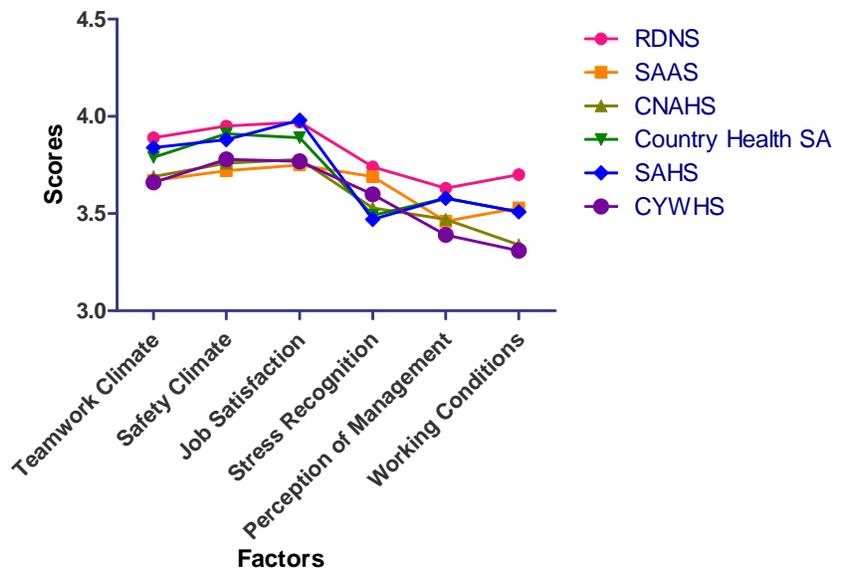
6.8   SAQ scores in regional and service facilities

Across services and regions some facilities were noteworthy for their high scores on particular SAQ scales. Overall in the regions and services more than half the facilities' Safety Climates were rated in the top score band. In more than half of the facilities Job Satisfaction was in the highest score band. Teamwork Climate was also judged as being of high quality in 19 of the 42 facilities. There were no cases of high ratings (over 4) on the Stress Recognition Scale. The Perception of Management and Working Conditions Scales attracted one and two high ratings respectively. These issues of Working Conditions and poor appraisal of management are clearly issues relevant to patient safety where interventions to improve staff attitudes need to be focused.

It is noteworthy that all three RDNS facilities had high scores on the first three SAQ factors. Breastscreen SA had high scores of five of the six factors. Primary and Community Health units in many regions were characterised by their high SAQ scores. It should be emphasised that some health facilities are large and composed of many units, a number of which individually may well have had high SAQ scores. These would not be apparent when the average scores of staff in all units making up the facility were combined. Thus analysis of the survey data did not provide the opportunity for larger facilities to reveal their specific areas with excellent safety climates.

6.9   Staff suggestions for improving patient safety

The suggestions for improving patient safety made by staff provided a valuable insight into the concerns and insights of staff. The percentages of patient safety suggestions in nine categories are provided in chart 6. The chart provides these in descending order of importance and the frequency with which the three groups of health care staff made each type of suggestion is noted. This information will help support policy development and managerial activity for improvements in patient safety over time.

Over 20,000 staff suggestions were reviewed, and over 2,000 analysed in detail. Overall the suggestions were constructive and thoughtful. There were surprisingly few hostile comments. While increasing staff numbers was considered an important strategy for improving patient safety, a considerable proportion of suggestions specified the type of additional staff required (eg more senior staff available, a better mix of staff on shifts, not using inexperienced casual staff). Improving staff conditions to reduce stress and fatigue was emphasised eg staff having enough time off between shifts. There was considerable support for ongoing education and updating of staff knowledge through in-service training and for a greater focus on patients' needs. Given the emphasis in recent years on incident reporting as an important tool in improving patient safety, it is surprising to find it received relatively little attention even from Central Office staff.

Chart 6: Percentage of staff suggestions for improving patient safety by provider group
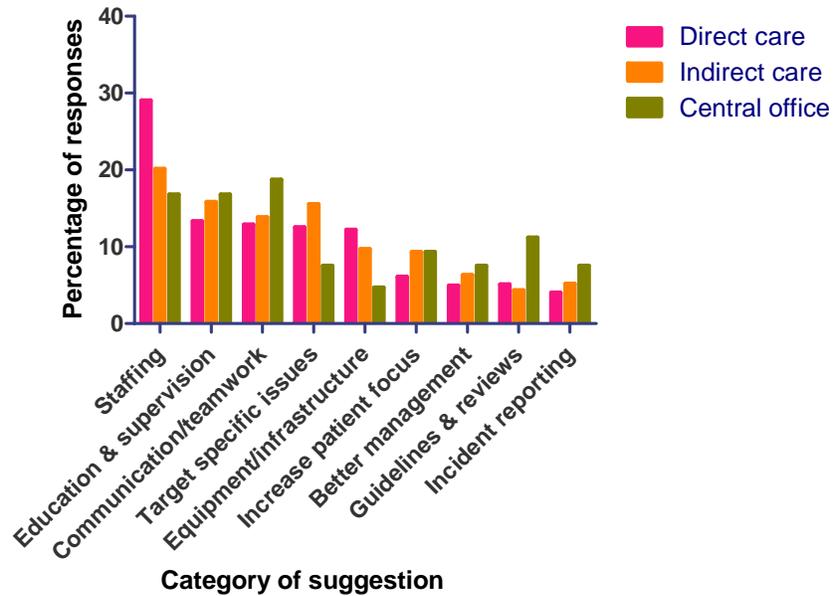
6.10 In conclusion

The South Australian Council for Safety and Quality in Health Care and the South Australian Department of Health took the important step of appraising and scrutinising its safety culture. A state wide survey of staff has now examined the patterns of presence or absence of attitudes and conditions known to be linked to patient safety in health settings. The survey has identified variations within and across SA streams of health care staff, professions and occupations, primary health workplaces, regions and services and different facilities therein. These data have provided valuable insights into problem issues and areas within the system and factors associated with locations exhibiting better safety cultures. Overall the SA system has been found to be performing better in most instances than other western health systems for which comparable data are available. There are opportunities for further improvement. The system is rating favourably in terms of its Safety Climate, Teamwork Climate and the Job Satisfaction of its staff. Most importantly the survey has provided the Council and Department with data against which the effects of changes and interventions aimed at improving patient safety within the SA health system can be measured and evaluated.

7   CONCLUSION

With the completion of this project the South Australian health system has information about its staff attitudes toward patient safety compared with international counterparts, a large database on patient safety attitudes, and an extensive catalogue of suggestions from staff for improving patient safety. This information provides a platform for understanding where attention is needed, where positive and less positive attitudes lie, and what needs to be done to support patient safety in the future. The information in this report and the dataset will shape future policy and managerial activities.

8   APPENDICES

1 Direct care, indirect care and Central Office forms of survey questionnaire

2 Comparison of demographics of survey sample and SA health workforce

3 Demographic characteristics of SA Health: Number of respondents working in regional and service facilities

4 Subsidiary scores derived from SAQ responses of direct care, indirect care and Central Office staff

5 Benchmarking: Comparisons of South Australian SAQ scores with findings from surveys in the UK, USA and New Zealand health facilities

6 Results of ANOVAs comparing SAQ factor and subsidiary scores of direct, indirect and Central Office staff

7 Results of ANOVAs comparing SAQ factor scores of major health professional groups

8 Responses of the total SA population, direct care providers, indirect care staff and Central Office staff to the 63 individual SAQ items and tables of items attracting the highest levels of agreement and disagreement from each staff group

Appendix 1: Direct Care, Indirect care and Central Office forms of survey questionnaires

Staff Survey on Patient Safety

Direct Patient Care Survey Form

Thank you for taking the time to complete this very important survey, which is an initiative of the **South Australian Council for Safety and Quality in Health Care** with support from independent consultants Communio and the Centre for Clinical Governance Research at University of New South Wales. Its purpose is to identify patient/client safety issues so that we can make a concerted effort to tackle them.

A key objective of the survey is to provide information on attitudes towards training, teamwork and cooperation amongst health service staff to help determine priority areas for safety improvement across our system including at the regional, service, division and professional group levels.

The survey is anonymous so you do not need to place your name on this questionnaire. However, we are collecting information including age, position, years of service and experience. We will ensure that no individual is identified and all responses are treated confidentially.

There is of course no obligation for you to complete this survey and non-participation will not affect your employment or relationship with the health service, however, I urge you to provide the Council with your input.

At the completion of the project a report will be provided to the South Australian Council for Safety and Quality in Health Care and arrangements made for feedback to staff.

You should complete the **RED DIRECT PATIENT CARE SURVEY FORM** if you have direct responsibility for or interaction with patients - e.g. clinical staff, such as nurses/midwives (including assistants in nursing), doctors, dentists, allied health, paramedics and some pharmacy and laboratory staff who have direct contact with patients.

If you don't have direct contact or interaction with patients complete the **BLUE INDIRECT PATIENT CARE SURVEY FORM** – eg managerial, administrative staff, support staff and staff in units such as laboratories, pathology, pharmacy and ancillary services.

This research has received Department of Health Human Research Ethics approval. If you have any questions about this research please contact: Ms Sarah Michael from Communio on 02 9922 4666.

Thank you for your participation in this important initiative.

Hans J Ohff
Chairman
South Australian Council for Safety and Quality in Health Care

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For more information

SA Health
Safety and Quality Unit
Email: wendy.butvila@health.sa.gov.au
http://in.health.sa.gov.au/phcc

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The following questions will provide background information about health staff. As noted previously, no information will be reported that can identify individuals. Please make your responses (or give your answers) by placing a ☒ in the box. **Please complete only one answer per question.**

1.	Gender	☐ Male	☐ Female		

2.	Age	☐ 15-29	☐ 30-44	☐ 45-59	☐ 60+

3.	Work pattern	☐ Rotating shifts	☐ Days only	☐ Evenings only	☐ Nights only

4.	Employment	☐ Full time	☐ Part time	☐ Casual/Temporary	☐ Volunteer

5.	Are you Aboriginal and/or Torres Strait Islander?	☐ YES	☐ NO

6.	Is English your first language?	☐ YES	☐ NO

7. **Current Employment** (One answer only)	Which profession or occupational group do you identify most closely with?			
	☐	Administration/Clerical	☐	Scientific/Research
	☐	Medical	☐	Pharmacy
	☐	Nursing and Midwifery	☐	Direct care worker (Aged Care)
	☐	Allied Health: Therapy	☐	Dentist
	☐	Allied Health: Diagnostic/Technical	☐	Other health worker
	☐	Ambulance/Paramedic	☐	Other staff

8. **Organisational Role** (One answer only)	What best describes your role in the organisation?
	☐ Executive
	☐ Senior Manager
	☐ Middle Manager
	☐ Line Manager
	☐ Team Leader or Supervisor
	☐ Staff Member

9.	Number of years experience in current position	☐ <1	☐ 1-2	☐ 3-7	☐ 8-12	☐ 13-20	☐ 20+

10.	Number of years experience in your current area of specialty	☐ <1	☐ 1-2	☐ 3-7	☐ 8-12	☐ 13-20	☐ 20+

11.	Number of years experience in the SA health system	☐ <1	☐ 1-2	☐ 3-7	☐ 8-12	☐ 13-20	☐ 20+

If you work at RDNS or SAAS please complete Q 12 or 13 and then go to the Survey Questions on page 4. Everyone else, go to Q 14

12. RDNS	☐ Southern	☐ Northern	☐ Wayville/Glenside

13. SAAS	☐ Metro North	☐ Country Central	☐ Emergency Op Centre
	☐ Metro South	☐ Country North	
	☐ Metro East	☐ Country South	
	☐ Metro West	☐ Country/Other	
	☐ Metro/Other		

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14. **Please choose the Region/Service which is your principal place of work**

☐ CNAHS	☐ Country Health SA	☐ SAHS	☐ CYWHS

15. **Please choose the facility or service that best describes where you spend most of your time (Choose one only)**

CNAHS	Country Health SA	SAHS	CYWHS
☐ Regional Office	☐ Regional Office	☐ Regional Office	☐ Regional Office
☐ Glenside	☐ Berri	☐ FMC	☐ WCH
☐ Hampstead	☐ Mt Gambier	☐ Noarlunga	☐ Mental Health
☐ Lyell McEwin	☐ Port Lincoln	☐ Repatriation General	☐ Primary/Community Health
☐ Modbury	☐ Whyalla	☐ DASSA	
☐ Queen Elizabeth	☐ Other Country Hospital	☐ Mental Health	
☐ Royal Adelaide	☐ Mental Health	☐ Primary/Community Health	
☐ St. Margaret's	☐ Primary/Community Health		
☐ BreastScreen SA			
☐ Mental Health			
☐ Primary/Community Health			
☐ Prison Health			
☐ SA Dental			
☐ SA Pathology			

COUNTRY HEALTH SA			
Incorporated Health Centres	**Northern Operational Group**	**Southern Operations Group**	**Central Operations Group**
☐ Pika Wiya	☐ Whyalla, Eastern Eyre, Far North	☐ Upper South East	☐ Riverland
☐ Ceduna, Koonibba	☐ Pt Lincoln, Ceduna, Mid-West, Lower Eyre	☐ Lower South East	☐ Yorke, Lower North
	☐ Pt Pirie, Southern Flinders, Pt Broughton, Mid-North	☐ Adelaide Hills, Southern Fleurieu, Kangaroo Island	☐ Barossa,Gawler, Eudunda, Kapunda
	☐ Port Augusta, Quorn, Hawker, Leigh Creek, Roxby Downs, Woomera	☐ Mallee Coorong	

16. **What is your primary work area? (one only)**

☐ Regional/facility office	☐ General ward	☐ Primary / Community Health
☐ Many units/no specific unit	☐ Health/medical clinic	☐ Population health
☐ Aged care	☐ Intensive care (any type)	☐ Psychiatry
☐ Anaesthetics/Recovery	☐ Laboratory	☐ Radiology/imaging
☐ Ancillary/domestic	☐ Medicine (non-surgical)	☐ Rehabilitation
☐ CAMHS	☐ Obstetrics/gynaecology	☐ Research/education
☐ Client home	☐ Paediatrics	☐ Quality/safety
☐ Dental	☐ Peri-operative	☐ Surgery
☐ Emergency	☐ Pharmacy	☐ Other
☐ Health Promotion		

The remainder of the questions relate to the Staff Survey on Patient Safety. Please ⊠ one answer only per question.

Throughout the survey, error is defined as any mistake in the delivery of care by any staff member regardless of outcome, Clinicians refer to all personnel with a clinical load (eg doctors, nurses/midwives, physiotherapists etc) and Patients refer to clients/consumers in the health system.

		Disagree Strongly	Disagree Slightly	Neutral	Agree Slightly	Agree Strongly
1.	High levels of workload are common in my clinical area.	☐	☐	☐	☐	☐
2.	I like my job.	☐	☐	☐	☐	☐
3.	Clinical input is well received in my area.	☐	☐	☐	☐	☐
4.	I would feel safe being treated here as a patient/client.	☐	☐	☐	☐	☐
5.	Errors are handled appropriately in my clinical area.	☐	☐	☐	☐	☐
6.	This health service does a good job of training new personnel.	☐	☐	☐	☐	☐
7.	All the necessary information for diagnostic and therapeutic decisions is routinely available to me.	☐	☐	☐	☐	☐
8.	Working in this health service is like being part of a large family.	☐	☐	☐	☐	☐
9.	My administration supports my daily efforts.	☐	☐	☐	☐	☐
10.	I receive appropriate feedback about my performance.	☐	☐	☐	☐	☐
11.	In this area, it is difficult to discuss errors.	☐	☐	☐	☐	☐
12.	Briefing other personnel before a procedure is important for patient/client safety.	☐	☐	☐	☐	☐
13.	Clinical discussions are common in my clinical area.	☐	☐	☐	☐	☐
14.	This health service is a good place to work.	☐	☐	☐	☐	☐
15.	Fatigue impairs my performance during emergency situations.	☐	☐	☐	☐	☐
16.	My health service's management does not knowingly compromise the safety of patients/clients.	☐	☐	☐	☐	☐
17.	The levels of staffing in my clinical area are sufficient to handle the number of patients/clients.	☐	☐	☐	☐	☐
18.	Decision-making in my clinical area makes it easy to learn from the errors of others.	☐	☐	☐	☐	☐
19.	My health service encourages teamwork and cooperation amongst its personnel.	☐	☐	☐	☐	☐

		Disagree Strongly	Disagree Slightly	Neutral	Agree Slightly	Agree Strongly
20.	I am encouraged by my colleagues to report any patient/client safety concerns I may have.	☐	☐	☐	☐	☐
21.	The culture in my clinical area makes it easy to learn from the errors of others.	☐	☐	☐	☐	☐
22.	My health service constructively deals with problem professional staff and employees.	☐	☐	☐	☐	☐
23.	The equipment in my clinical area is adequate.	☐	☐	☐	☐	☐
24.	In my clinical area, it is difficult to speak up if I perceive a problem with patient/client care.	☐	☐	☐	☐	☐
25.	When my workload becomes excessive, my performance is impaired.	☐	☐	☐	☐	☐
26.	I am provided with adequate, timely information about events in my health service that might affect my work.	☐	☐	☐	☐	☐
27.	I have seen others make error(s) that had the potential to harm patients/clients.	☐	☐	☐	☐	☐
28.	I know the proper channels to direct questions regarding patient/client safety in my clinical area.	☐	☐	☐	☐	☐
29.	I am proud to work here.	☐	☐	☐	☐	☐
30.	Disagreements in my clinical area are appropriately resolved (i.e., not who is right but what is best for the patient/client)	☐	☐	☐	☐	☐
31.	I am less effective at work when fatigued.	☐	☐	☐	☐	☐
32.	I am more likely to make errors in tense or hostile situations.	☐	☐	☐	☐	☐
33.	Stress from personal problems adversely affects my performance.	☐	☐	☐	☐	☐
34.	I have the support I need from other personnel to care for patients/clients.	☐	☐	☐	☐	☐
35.	It is easy for personnel in my clinical area to ask questions when there is something that they do not understand.	☐	☐	☐	☐	☐
36.	Disruptions in the continuity of care (e.g., shift changes, patient transfers, etc.) can be detrimental to patient/client safety.	☐	☐	☐	☐	☐
37.	During emergencies, I can predict what other personnel are going to do next.	☐	☐	☐	☐	☐
38.	The clinicians in my area work together as a well-coordinated team.	☐	☐	☐	☐	☐
39.	I am frequently unable to express disagreement with senior clinicians in my area.	☐	☐	☐	☐	☐
40.	Very high levels of workload stimulate and improve staff performance.	☐	☐	☐	☐	☐

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		Disagree Strongly	Disagree Slightly	Neutral	Agree Slightly	Agree Strongly
41.	Truly professional personnel can leave personal problems behind when working.	☐	☐	☐	☐	☐
42.	Morale in my clinical area is high.	☐	☐	☐	☐	☐
43.	Trainees in my discipline are adequately supervised.	☐	☐	☐	☐	☐
44.	I know the first and last names of all the personnel I worked with during my last shift.	☐	☐	☐	☐	☐
45.	I have made errors that had the potential to harm patients/clients.	☐	☐	☐	☐	☐
46.	Senior clinicians in my clinical area are doing a good job.	☐	☐	☐	☐	☐
47.	All the personnel in my clinical area take responsibility for patient/clients safety.	☐	☐	☐	☐	☐
48.	If necessary, I know how to report errors that happen in my clinical area.	☐	☐	☐	☐	☐
49.	Patient/client safety is constantly reinforced as the priority in this clinical area.	☐	☐	☐	☐	☐
50.	Interactions in this clinical area are collegial, rather than hierarchical.	☐	☐	☐	☐	☐
51.	Important issues are well communicated at shift changes.	☐	☐	☐	☐	☐
52.	There is widespread adherence to clinical guidelines and evidence-based criteria regarding patient safety in this clinical area.	☐	☐	☐	☐	☐
53.	Personnel are not punished for errors reported through incident reports.	☐	☐	☐	☐	☐
54.	Error reporting is supported in my clinical area.	☐	☐	☐	☐	☐
55.	Information obtained through incident reports is used to make patient care safer in my clinical area.	☐	☐	☐	☐	☐

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		Disagree Strongly	Disagree Slightly	Neutral	Agree Slightly	Agree Strongly
56.	During emergency situations (e.g., emergency resuscitations), my performance is not affected by working with inexperienced or less capable personnel.	☐	☐	☐	☐	☐
57.	Personnel frequently disregard rules and guidelines (e.g., handwashing, treatment protocols/clinical pathways, sterile field, etc.) that are established for this clinical area.	☐	☐	☐	☐	☐
58.	I have taken remedial action to solve an error in my clinical area.	☐	☐	☐	☐	☐
59.	My organisation's attempts to meet the cultural needs of Aboriginal and Torres Straight Islander people have been effective.	☐	☐	☐	☐	☐
60.	Staff in my health service practise effective hand hygiene.	☐	☐	☐	☐	☐
61.	All necessary information is transferred to the appropriate person to ensure safe care.	☐	☐	☐	☐	☐
62.	My health service manages medications safely.	☐	☐	☐	☐	☐
63.	In cases where a patient/client has been harmed, information is disclosed openly to patients/clients and relatives.	☐	☐	☐	☐	☐

COMMENTS

What are your top three recommendations for improving patient safety?

1._____

2. _____

3, _____

Thank you for completing the questionnaire.
Your time and participation are greatly appreciated.

Please place your survey in the collection box in your work area to be collected by the Research Team.

Staff Survey on Patient Safety

Indirect Patient Care Survey Form

Thank you for taking the time to complete this very important survey, which is an initiative of the **South Australian Council for Safety and Quality in Health Care** with support from independent consultants Communio and the Centre for Clinical Governance Research at University of New South Wales. Its purpose is to identify patient/client safety issues so that we can make a concerted effort to tackle them.

A key objective of the survey is to provide information on attitudes towards training, teamwork and cooperation amongst health service staff to help determine priority areas for safety improvement across our system including at the regional, service, division and professional group levels.

The survey is anonymous so you do not need to place your name on this questionnaire. However, we are collecting information including age, position, years of service and experience. We will ensure that no individual is identified and all responses are treated confidentially.

There is of course no obligation for you to complete this survey and non-participation will not affect your employment or relationship with the health service, however, I urge you to provide the Council with your input.

At the completion of the project a report will be provided to the South Australian Council for Safety and Quality in Health Care and arrangements made for feedback to staff.

If you are a member of staff and don't have direct contact or interaction with patients, but have a responsibility for patient care, complete the **BLUE INDIRECT PATIENT CARE SURVEY FORM** – eg managerial, administrative staff, support staff and staff in units such as laboratories, pathology, pharmacy and ancillary services.

The project team is aware that some questions may be difficult to answer if you don't have direct responsibility for patient care. As the survey is measuring your values and attitudes towards patient safety, we ask you to take this into consideration when completing the survey.

You should complete the **RED DIRECT PATIENT CARE SURVEY FORM** if you have direct responsibility for or interaction with patients - e.g. clinical staff, such as nurses/midwives (including assistants in nursing), doctors, dentists, allied health, paramedics and some pharmacy and laboratory staff who have direct contact with patients.

This research has received Department of Health Human Research Ethics approval. If you have any questions about this research please contact: Ms Sarah Michael from Communio on 02 9922 4666.

Thank you for your participation in this important initiative.

Hans J Ohff
Chairman
South Australian Council for Safety and Quality in Health Care

For more information
SA Health
Safety and Quality Unit
Email: wendy.butvila@health.sa.gov.au
http://in.health.sa.gov.au/phcc

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The following questions will provide background information about health staff. As noted previously, no information will be reported that can identify individuals. Please make your responses (or give your answers) by placing a ☒ in the box. **Please complete only one answer per question.**

1. Gender	☐ Male	☐ Female		

2. Age	☐ 15-29	☐ 30-44	☐ 45-59	☐ 60+

3. Work pattern	☐ Rotating shifts	☐ Days only	☐ Evenings only	☐ Nights only

4. Employment	☐ Full time	☐ Part time	☐ Casual/Temporary	☐ Volunteer

5. Are you Aboriginal and/or Torres Strait Islander?	☐ YES	☐ NO

6. Is English your first language?	☐ YES	☐ NO

7. Current Employment (One answer only)	Which profession or occupational group do you identify most closely with?			
	☐	Administration/Clerical	☐	Scientific/Research
	☐	Medical	☐	Pharmacy
	☐	Nursing and Midwifery	☐	Direct care worker (Aged Care)
	☐	Allied Health: Therapy	☐	Dentist
	☐	Allied Health: Diagnostic/Technical	☐	Other health worker
	☐	Ambulance/Paramedic	☐	Other staff

8. Organisational Role (One answer only)	What best describes your role in the organisation?
	☐ Executive
	☐ Senior Manager
	☐ Middle Manager
	☐ Line Manager
	☐ Team Leader or Supervisor
	☐ Staff Member

9. Number of years experience in current position	☐ <1	☐ 1-2	☐ 3-7	☐ 8-12	☐ 13-20	☐ 20+

10. Number of years experience in your current profession	☐ <1	☐ 1-2	☐ 3-7	☐ 8-12	☐ 13-20	☐ 20+

11. Number of years experience in the SA health system	☐ <1	☐ 1-2	☐ 3-7	☐ 8-12	☐ 13-20	☐ 20+

If you work at RDNS or SAAS please complete Q 12 or 13 and then go to the Survey Questions on page 4. Everyone else, go to Q 14

12. RDNS	☐ Southern	☐ Northern	☐ Wayville/Glenside

13. SAAS	☐ Metro North	☐ Country Central	☐ Emergency Op Centre
	☐ Metro South	☐ Country North	
	☐ Metro East	☐ Country South	
	☐ Metro West	☐ Country/Other	
	☐ Metro/Other		118

14. **Please choose the Region/Service which is your principal place of work**

☐ CNAHS	☐ Country Health SA	☐ SAHS	☐ CYWHS

15. **Please choose the facility or service that best describes where you spend most of your time (Choose one only)**

CNAHS	Country Health SA	SAHS	CYWHS
☐ Regional Office	☐ Regional Office	☐ Regional Office	☐ Regional Office
☐ Glenside	☐ Berri	☐ FMC	☐ WCH
☐ Hampstead	☐ Mt Gambier	☐ Noarlunga	☐ Mental Health
☐ Lyell McEwin	☐ Port Lincoln	☐ Repatriation General	☐ Primary/Community Health
☐ Modbury	☐ Whyalla	☐ DASSA	
☐ Queen Elizabeth	☐ Other Country Hospital	☐ Mental Health	
☐ Royal Adelaide	☐ Mental Health	☐ Primary/Community Health	
☐ St. Margaret's	☐ Primary/Community Health		
☐ BreastScreen SA			
☐ Mental Health			
☐ Primary/Community Health			
☐ Prison Health			
☐ SA Dental			
☐ SA Pathology			

COUNTRY HEALTH SA			
Incorporated Health Centres	**Northern Operational Group**	**Southern Operations Group**	**Central Operations Group**
☐ Pika Wiya	☐ Whyalla, Eastern Eyre, Far North	☐ Upper South East	☐ Riverland
☐ Ceduna, Koonibba	☐ Pt Lincoln, Ceduna, Mid-West, Lower Eyre	☐ Lower South East	☐ Yorke, Lower North
	☐ Pt Pirie, Southern Flinders, Pt Broughton, Mid-North	☐ Adelaide Hills, Southern Fleurieu, Kangaroo Island	☐ Barossa, Gawler, Eudunda, Kapunda
	☐ Port Augusta, Quorn, Hawker, Leigh Creek, Roxby Downs, Woomera	☐ Mallee Coorong	

16. **What is your primary work area? (one only)**

☐ Regional/facility office	☐ General ward	☐ Primary / Community Health
☐ Many units/no specific unit	☐ Health/medical clinic	☐ Population health
☐ Aged care	☐ Intensive care (any type)	☐ Psychiatry
☐ Anaesthetics/Recovery	☐ Laboratory	☐ Radiology/imaging
☐ Ancillary/domestic	☐ Medicine (non-surgical)	☐ Rehabilitation
☐ CAMHS	☐ Obstetrics/gynaecology	☐ Research/education
☐ Client home	☐ Paediatrics	☐ Quality/safety
☐ Dental	☐ Peri-operative	☐ Surgery
☐ Emergency	☐ Pharmacy	☐ Other
☐ Health Promotion		

The remainder of the questions relate to the Staff Survey on Patient Safety. Please ⊠ one answer only per question.

Throughout the survey, error is defined as any mistake in the delivery of care by any staff member regardless of outcome, Clinicians refer to all personnel with a clinical load (eg doctors, nurses/midwives, physiotherapists etc) and Patients refer to clients/consumers in the health system.

		Disagree Strongly	Disagree Slightly	Neutral	Agree Slightly	Agree Strongly
1.	High levels of workload are common in my health service.	☐	☐	☐	☐	☐
2.	I like my job.	☐	☐	☐	☐	☐
3.	My input is well received in this health service.	☐	☐	☐	☐	☐
4.	I would feel safe being treated here as a patient/client.	☐	☐	☐	☐	☐
5.	Errors are handled appropriately in my health service.	☐	☐	☐	☐	☐
6.	This health service does a good job of training new personnel.	☐	☐	☐	☐	☐
7.	All the necessary information for diagnostic and therapeutic decisions is routinely available to clinical staff.	☐	☐	☐	☐	☐
8.	Working in this health service is like being part of a large family.	☐	☐	☐	☐	☐
9.	My administration supports my daily efforts.	☐	☐	☐	☐	☐
10.	I receive appropriate feedback about my performance.	☐	☐	☐	☐	☐
11.	In my health service, it is difficult to discuss errors.	☐	☐	☐	☐	☐
12.	Briefing other personnel before a procedure is important for patient/client safety.	☐	☐	☐	☐	☐
13.	Briefings are common in my health service.	☐	☐	☐	☐	☐
14.	My health service is a good place to work.	☐	☐	☐	☐	☐
15.	Fatigue impairs my performance during emergency situations.	☐	☐	☐	☐	☐
16.	My health service's management does not knowingly compromise the safety of patients/clients.	☐	☐	☐	☐	☐
17.	The levels of staffing in my area are sufficient to handle the number of patients/clients.	☐	☐	☐	☐	☐
18.	Decision-making in my area makes it easy to learn from the errors of others.	☐	☐	☐	☐	☐
19.	My health service encourages teamwork and cooperation amongst its personnel.	☐	☐	☐	☐	☐

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		Disagree Strongly	Disagree Slightly	Neutral	Agree Slightly	Agree Strongly
20.	I am encouraged by my colleagues to report any patient/client safety concerns I may have.	☐	☐	☐	☐	☐
21.	The culture in my area makes it easy to learn from the errors of others.	☐	☐	☐	☐	☐
22.	My health service constructively deals with problem professional staff and employees.	☐	☐	☐	☐	☐
23.	The equipment in my area is adequate.	☐	☐	☐	☐	☐
24.	In my area, it is difficult to speak up if I perceive a problem with patient/client care.	☐	☐	☐	☐	☐
25.	When my workload becomes excessive, my performance is impaired.	☐	☐	☐	☐	☐
26.	I am provided with adequate, timely information about events in my health service that might affect my work.	☐	☐	☐	☐	☐
27.	I have seen others make error(s) that had the potential to harm patients/clients.	☐	☐	☐	☐	☐
28.	I know the proper channels to direct questions regarding patient/client safety in my health service.	☐	☐	☐	☐	☐
29.	I am proud to work here.	☐	☐	☐	☐	☐
30.	Disagreements in my health service are appropriately resolved (i.e., not who is right but what is best for the patient/client)	☐	☐	☐	☐	☐
31.	I am less effective at work when fatigued.	☐	☐	☐	☐	☐
32.	I am more likely to make errors in tense or hostile situations.	☐	☐	☐	☐	☐
33.	Stress from personal problems adversely affects my performance.	☐	☐	☐	☐	☐
34.	I have the support I need from other personnel to care for patients/clients/do my job.	☐	☐	☐	☐	☐
35.	It is easy for personnel in my health service to ask questions when there is something that they do not understand.	☐	☐	☐	☐	☐
36.	Disruptions in the continuity of care (e.g., shift changes, patient transfers, etc.) can be detrimental to patient/client safety.	☐	☐	☐	☐	☐
37.	During emergencies, I can predict what other staff are going to do next.	☐	☐	☐	☐	☐
38.	The staff in my area work together as a well-coordinated team.	☐	☐	☐	☐	☐
39.	I am frequently unable to express disagreement with senior staff in my area.	☐	☐	☐	☐	☐
40.	Very high levels of workload stimulate and improve staff performance.	☐	☐	☐	☐	☐

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		Disagree Strongly	Disagree Slightly	Neutral	Agree Slightly	Agree Strongly
41.	Truly professional staff can leave personal problems behind when working.	☐	☐	☐	☐	☐
42.	Morale in my area is high.	☐	☐	☐	☐	☐
43.	Trainees in my area are adequately supervised.	☐	☐	☐	☐	☐
44.	I know the first and last names of all the staff I worked with during my last shift.	☐	☐	☐	☐	☐
45.	I have made errors that had the potential to harm patients/clients.	☐	☐	☐	☐	☐
46.	Senior staff in my area are doing a good job.	☐	☐	☐	☐	☐
47.	All the staff in my area take responsibility for patient/clients safety.	☐	☐	☐	☐	☐
48.	If necessary, I know how to report errors that happen in my health service.	☐	☐	☐	☐	☐
49.	Patient/client safety is constantly reinforced as the priority in my health service.	☐	☐	☐	☐	☐
50.	Interactions in my area are collegial, rather than hierarchical.	☐	☐	☐	☐	☐
51.	Important issues are well communicated at shift changes.	☐	☐	☐	☐	☐
52.	There is widespread adherence to guidelines and evidence-based criteria regarding patient safety in my area.	☐	☐	☐	☐	☐
53.	Personnel are not punished for errors reported through incident reports.	☐	☐	☐	☐	☐
54.	Error reporting is supported in my area.	☐	☐	☐	☐	☐
55.	Information obtained through incident reports is used to make patient care safer in my area.	☐	☐	☐	☐	☐

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	Disagree Strongly	Disagree Slightly	Neutral	Agree Slightly	Agree Strongly
56. During emergency situations (e.g., emergency resuscitations), my performance is not affected by working with inexperienced or less capable personnel.	☐	☐	☐	☐	☐
57. Personnel frequently disregard rules and guidelines (e.g., handwashing, treatment protocols/clinical pathways, sterile field, etc.) that are established for this clinical area.	☐	☐	☐	☐	☐
58. I have taken remedial action to solve an error in my area.	☐	☐	☐	☐	☐
59. My organisation's attempts to meet the cultural needs of Aboriginal and Torres Straight Islander people have been effective.	☐	☐	☐	☐	☐
60. Staff in my health service practise effective hand hygiene.	☐	☐	☐	☐	☐
61. All necessary information is transferred to the appropriate person to ensure safe care.	☐	☐	☐	☐	☐
62. My health service manages medications safely.	☐	☐	☐	☐	☐
63. In cases where a patient/client has been harmed, information is disclosed openly to patients/clients and relatives.	☐	☐	☐	☐	☐

COMMENTS

What are your top three recommendations for improving patient safety?

1._____

2. _____

3, _____

**Thank you for completing the questionnaire.
Your time and participation are greatly appreciated.**

Please place your survey in the collection box in your work area to be collected by the Research Team.

Staff Survey on Patient Safety

Department of Health – Central Office Survey Form

Thank you for taking the time to complete this very important survey, which is an initiative of the **South Australian Council for Safety and Quality in Health Care** with support from independent consultants Communio and the Centre for Clinical Governance Research at University of New South Wales. Its purpose is to identify patient/client safety issues so that we can make a concerted effort to tackle them.

A key objective of the survey is to provide information on attitudes towards training, teamwork and cooperation amongst health system staff to help determine priority areas for safety improvement across our system including at the regional, service, division and professional group levels.

The project team is aware that some questions may be difficult to answer if you don't have direct responsibility for patient care. As the survey is measuring your values and attitudes towards patient safety, we ask you to take this into consideration when completing the survey.

The survey is anonymous so you do not need to place your name on this questionnaire. However, we are collecting information including age, occupation, years of service and experience. We will ensure that no individual is identified and all responses are treated confidentially.

There is of course no obligation for you to complete this survey and non-participation will not affect your employment or relationship with the Department, however, I urge you to provide the Council with your input.

At the completion of the project a report will be provided to the South Australian Council for Safety and Quality in Health Care and arrangements made for feedback to staff.

This form is designed for Department of Health (central office) staff located in the CBD, predominantly Citi Centre but also other locations such as Waymouth and Grenfell Streets.

This research has received Department of Health Human Research Ethics approval. If you have any questions about this research please contact: Ms Sarah Michael from Communio on 02 9922 4666.

Thank you for your participation in this important initiative.

Hans J Ohff
Chairman
South Australian Council for Safety and Quality in Health Care

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The following questions will provide background information about health staff. As noted previously, no information will be reported that can identify individuals. Please make your responses (or give your answers) by placing a ⊠ in the box. **Please complete only one answer per question.**

1. Gender	☐ Male	☐ Female	

2. Age	☐ 15-29	☐ 30-44	☐ 45-59	☐ 60+

3. Work pattern	☐ Rotating shifts	☐ Days only	☐ Evenings only	☐ Nights only

4. Employment	☐ Full time	☐ Part time	☐ Casual/Temporary	☐ Volunteer

5. Are you Aboriginal and/or Torres Strait Islander?	☐ YES	☐ NO

6. Is English your first language?	☐ YES	☐ NO

7. **Current Employment** (One answer only)	Which profession or occupational group do you identify most closely with?			
	☐	Administration/Clerical	☐	Ambulance/Paramedic
	☐	Medical	☐	Scientific/Research
	☐	Nursing and Midwifery	☐	Pharmacy
	☐	Allied Health: Therapy	☐	Other health worker
	☐	Allied Health: Diagnostic/Technical	☐	Other staff

8. **Organisational Role** (One answer only)	What best describes your role in the organisation?
	☐ Executive
	☐ Senior Manager
	☐ Middle Manager
	☐ Line Manager
	☐ Team Leader or Supervisor
	☐ Staff Member

9. Number of years experience in current position	☐ <1	☐ 1-2	☐ 3-7	☐ 8-12	☐ 13-20	☐ 20+

10. Number of years experience in your current profession	☐ <1	☐ 1-2	☐ 3-7	☐ 8-12	☐ 13-20	☐ 20+

11. Number of years experience in the SA health system	☐ <1	☐ 1-2	☐ 3-7	☐ 8-12	☐ 13-20	☐ 20+

12.Please choose the Portfolio which is your principal place of work (Choose one only)

☐ Office of the Chief Executive	☐ Communications
☐ Policy and Intergovernment Relations	☐ Public Health and Clinical Coordination
☐ Statewide Service Strategy	☐ Operations
☐ Aboriginal Health	☐ Finance and Administration
☐ Workforce Development	☐ ICT Services

The remainder of the questions relate to the Staff Survey on Patient Safety. Please ⊠ one answer only per question.

Please indicate the extent to which you agree or disagree with each statement below.

Throughout the survey, error is defined as any clinical mistake in the delivery of care by any staff member regardless of outcome, Clinicians refer to all personnel with a clinical load (eg doctors, nurses/midwives, physiotherapists etc) and Patients refer to clients/consumers in the health system.

		Disagree Strongly	Disagree Slightly	Neutral	Agree Slightly	Agree Strongly
1.	High levels of workload are common in the health system.	☐	☐	☐	☐	☐
2.	I like my job.	☐	☐	☐	☐	☐
3.	Staff input is well received in the health system.	☐	☐	☐	☐	☐
4.	I would feel safe being treated in the SA health system as a patient/client.	☐	☐	☐	☐	☐
5.	Clinical errors are handled appropriately in the health system.	☐	☐	☐	☐	☐
6.	The health system does a good job of training new personnel.	☐	☐	☐	☐	☐
7.	All the necessary information for strategic decision making is routinely available to me.	☐	☐	☐	☐	☐
8.	Working in the Department is like being part of a large family.	☐	☐	☐	☐	☐
9.	The health system supports my daily efforts.	☐	☐	☐	☐	☐
10.	I receive appropriate feedback about my performance.	☐	☐	☐	☐	☐
11.	It is difficult to discuss clinical errors in the health system.	☐	☐	☐	☐	☐
12.	In the health system, briefing other personnel before a procedure is important for patient/client safety.	☐	☐	☐	☐	☐
13.	Strategic discussions are common in the health system.	☐	☐	☐	☐	☐
14.	The health system is a good place to work.	☐	☐	☐	☐	☐
15.	Fatigue impairs clinicians' performance during emergency situations.	☐	☐	☐	☐	☐
16.	The health systems' management does not knowingly compromise the safety of patients/clients.	☐	☐	☐	☐	☐
17.	The levels of staffing in the health system are sufficient to handle the workload.	☐	☐	☐	☐	☐
18.	Decision-making in the health system makes it easy to learn from the errors of others.	☐	☐	☐	☐	☐
19.	The health system encourages teamwork and cooperation amongst its personnel.	☐	☐	☐	☐	☐

		Disagree Strongly	Disagree Slightly	Neutral	Agree Slightly	Agree Strongly
20.	I am encouraged by my colleagues to report any safety concerns I may have.	☐	☐	☐	☐	☐
21.	The culture in the health system makes it easy to learn from the errors of others.	☐	☐	☐	☐	☐
22.	The health system constructively deals with problem professional staff and employees.	☐	☐	☐	☐	☐
23.	The equipment in the health system is adequate.	☐	☐	☐	☐	☐
24.	In the health system, it is difficult to speak up if a problem is perceived with patient/client care.	☐	☐	☐	☐	☐
25.	When my workload becomes excessive, my performance is impaired.	☐	☐	☐	☐	☐
26.	I am provided with adequate, timely information about events in the health system that might affect my work.	☐	☐	☐	☐	☐
27.	I have seen others make clinical error(s) that had the potential to harm patients/clients.	☐	☐	☐	☐	☐
28.	I know the proper channels to direct questions regarding patient/client safety in the health system.	☐	☐	☐	☐	☐
29.	I am proud to work here.	☐	☐	☐	☐	☐
30.	Disagreements in the health system are appropriately resolved (i.e., not who is right but what is best for the patient/client)	☐	☐	☐	☐	☐
31.	I am less effective at work when fatigued.	☐	☐	☐	☐	☐
32.	Staff in the health system are more likely to make clinical errors in tense or hostile situations.	☐	☐	☐	☐	☐
33.	Stress from personal problems adversely affects my performance.	☐	☐	☐	☐	☐
34.	I have the support I need from other personnel to do my job.	☐	☐	☐	☐	☐
35.	It is easy for personnel in the health system to ask questions when there is something that they do not understand.	☐	☐	☐	☐	☐
36.	Disruptions can be detrimental to my job.	☐	☐	☐	☐	☐
37.	During emergencies, clinicians can predict what other personnel are going to do next.	☐	☐	☐	☐	☐
38.	The staff in the health system work together as a well-coordinated team.	☐	☐	☐	☐	☐
39.	I am frequently unable to express disagreement with senior staff.	☐	☐	☐	☐	☐

		Disagree Strongly	Disagree Slightly	Neutral	Agree Slightly	Agree Strongly
40.	Very high levels of workload stimulate and improve staff performance.	☐	☐	☐	☐	☐
41.	Truly professional staff can leave personal problems behind when working.	☐	☐	☐	☐	☐
42.	Morale in the health system is high.	☐	☐	☐	☐	☐
43.	Trainees in the health system are adequately supervised.	☐	☐	☐	☐	☐
44.	I know the first and last names of all the personnel I worked with during the last week.	☐	☐	☐	☐	☐
45.	I have made clinical errors that had the potential to harm patients/clients.	☐	☐	☐	☐	☐
46.	Senior staff in the health system are doing a good job.	☐	☐	☐	☐	☐
47.	All the staff in the health system take responsibility for patient/clients' safety.	☐	☐	☐	☐	☐
48.	If necessary, I know how to report clinical errors that happen in the health system.	☐	☐	☐	☐	☐
49.	Patient/client safety is constantly reinforced as the priority in the health system.	☐	☐	☐	☐	☐
50.	Interactions in the health system are collegial, rather than hierarchical.	☐	☐	☐	☐	☐
51.	Important issues are well communicated.	☐	☐	☐	☐	☐
52.	There is widespread adherence to guidelines and evidence-based criteria regarding patient safety in the health system.	☐	☐	☐	☐	☐
53.	Personnel in the health system are not punished for clinical errors reported through incident reports.	☐	☐	☐	☐	☐
54.	Clinical error reporting is supported in the health system.	☐	☐	☐	☐	☐
55.	Information obtained through incident reports is used to make patient care safer in the health system.	☐	☐	☐	☐	☐

		Disagree Strongly	Disagree Slightly	Neutral	Agree Slightly	Agree Strongly
56.	During emergency situations (e.g., emergency resuscitations), staff performance is not affected by working with inexperienced or less capable personnel.	☐	☐	☐	☐	☐
57.	Personnel frequently disregard rules and guidelines (e.g., handwashing, treatment protocols/clinical pathways etc.) that are established for clinical care.	☐	☐	☐	☐	☐
58.	I have taken remedial action to solve a clinical error in the health system.	☐	☐	☐	☐	☐
59.	The Department's attempts to meet the cultural needs of Aboriginal and Torres Straight Islander people have been effective.	☐	☐	☐	☐	☐
60.	Staff in the SA health system practise effective hand hygiene.	☐	☐	☐	☐	☐
61.	All necessary information is transferred to the appropriate person to ensure safe care.	☐	☐	☐	☐	☐
62.	The SA health system manages medications safely.	☐	☐	☐	☐	☐
63.	In cases where a patient/client has been harmed, information is disclosed openly to patients/clients and relatives.	☐	☐	☐	☐	☐

COMMENTS

What are your top three recommendations for improving patient safety?

1._____

2. _____

3, _____

**Thank you for completing the questionnaire.
Your time and participation are greatly appreciated.**

Please place your survey in the collection box in your work area to be collected by the Research Team.

Appendix 2: Comparison of demographics of the survey sample and SA health workforce

Comparison of the demographics of the survey sample and the SA health workforce was done by consulting the SA Department of Health records regarding the number of its employees under various awards in December 2008. We aimed to assess the proportions of the various professional groups who participated in the survey. Were some over or under-represented in the survey population? However categorisation of the workforce by awards as used by the Department was not entirely comparable with demographic information gained on occupation from answers to items 7 ("Which profession or occupational group do you identify most with?"). Thus we were unable to estimate the response rate for most occupations.

Nurses/midwives: According to SA Departmental records there were 14,039 nurses/midwives in the health system in December 2008. Survey questionnaires were answered by 6,473 nurses/midwives which is a return rate of 46.1%. Some of course were absent from work eg on leave, at the time of the survey as were some doctors.

Doctors: SA records list 2,580 medical officers and 506 visiting medical specialists, a total of 3,086 doctors. Surveys were returned by 1,069 doctors, a return rate of 34.6%. However visiting medical specialists may have had less exposure to the campaign to recruit survey participants than other medical officers.

While it was not possible to determine the response rates of the other occupational groups the overall response rate to the survey throughout the health system suggests that that some of the other occupational groups were keener "to have their say" than the more established professions.

Appendix 3: Demographic characteristics of SA Health: Number of respondents working in regional and service facilities

This appendix reports the number of respondents who worked in the various service and regional facilities as recorded in answers to item 15 in the questionnaire. The previous questionnaire item (14) had asked which region staff worked in as shown in table 16, section 5. The total number of workers in the four regions varies slightly between table 16 and the tables in this appendix. Slightly more people said they worked in CNAHS and CYWHS (item 14) than specified the actual facility where they worked (item 15). The reverse situation occurred with SAHS and Country Health SA; more people specified working at a facility (item 15) than checked the region (item 14).

Table 74: Number of respondents from RDNS services and percentages of direct and indirect forms from each facility

Facility	Respondents		
	Number	*Direct care staff %*	*Indirect care staff %*
Southern	176	85.2%	14.8%
Northern	231	85.7%	14.3%
Wayville/ Glenside	91	40.7%	59.3%
Total	498	77.3%	22.7%

Table 75: Number of respondents from SAAS services and percentages of direct and indirect forms from each facility

Facility	Respondents		
	Number	*Direct care* *staff %*	*Indirect care* *staff %*
Metro North	100	92.0%	8.0%
Metro South	147	82.3%	17.7%
Metro East	49	93.9%	6.1%
Metro West	65	93.8%	6.2%
Metro/other	46	58.7%	41.3%
Country Central	175	97.7%	2.3%
Country North	138	79.7%	20.3%
Country South	152	86.8%	13.2%
Country/other	45	71.15	28.9%
Emergency Op Centre	17	23.5%	76.5%
Total	934	85.2%	14.8%

Table 76: Number of respondents from CNAHS services and percentages of direct and indirect forms from each facility

Facility	Respondents		
	Number	*Direct care staff %*	*Indirect care staff %*
Regional office	59	22.0%	78.0%
Glenside	227	55.5%	44.5%
Hampstead	315	77.5%	22.5%
Lyell McEwin	887	75.9%	24.1%
Modbury	331	70.4%	29.6%
Queen Elizabeth	1258	63.0%	37.0%
Royal Adelaide	1696	66.3%	33.7%
St Margaret's	48	70.8%	29.2%
BreastScreen SA	73	41.1%	58.9%
Mental Health	309	82.5%	17.5%
Primary/Community Health	333	66.4%	33.6%
Prison Health	68	86.8%	13.2%
SA Dental	435	65.5%	34.5%
SA Pathology	191	33.0%	67.0%
Total	6230	66.7%	33.3%

Table 77: Number of respondents from SAHS services and percentages of direct and indirect forms from each facility

Facility	Respondents		
	Number	*Direct care staff %*	*Indirect care staff %*
Regional office	57	24.6%	75.4%
FMC	1481	72.5%	27.5%
Noarlunga	417	65.9%	34.1%
Repatriation General	668	63.3%	36.7%
DASSA	166	54.8%	45.2%
Mental Health	168	77.4%	22.6%
Primary/ Community Health	173	83.2%	16.8%
Total	3130	68.7%	31.3%

Table 78: Number of respondents from CYWHS services and percentages of direct and indirect forms from each facility

Facility	Respondents		
	Number	*Direct care staff %*	*Indirect care staff %*
Regional Office	42	38.1%	61.9%
WCH	784	62.5%	37.5%
Mental Health	73	86.3%	13.7%
Primary/ Community Health	309	74.4%	25.6%
Total	1208	66.1%	33.9%

Table 79: Number of respondents from Country Health SA services and percentages of direct and indirect forms from each facility

Facility	Respondents		
	Number	*Direct care staff %*	*Indirect care staff %*
Regional office	132	24.2%	75.8%
Berri	139	47.5%	52.5%
Mt Gambier	247	57.9%	42.1%
Port Lincoln	197	59.9%	40.1%
Whyalla	275	62.5%	37.5%
Other country Hospital	2175	64.9%	35.1%
Mental Health	79	65.8%	34.2%
Primary/ Community Health	500	77.8%	22.2%
Total	3744	63.7%	36.3%

Table 80: Number of respondents from Country Health SA classified by operational group and percentages of direct and indirect forms from each group

Group/subgroup	Respondents		
	Number	Direct care staff %	Indirect care staff %
Incorporated Health Centres			
Pika Wiya	6	50.0%	50.0%
Ceduna, Koonibba	20	60.0%	40.0%
Northern Operations Group			
Whyalla, Eastern Eyre, Far North	500	64.6%	35.4%
Pt Lincoln, Ceduna, Mid-West, Lower Eyre	269	63.2%	36.8%
Pt Pirie, Southern Flinders, Pt Broughton, Mid-North	283	62.5%	37.5%
Pt Augusta, Quorn, Hawker, Leigh Creek, Roxby Downs, Woomera	305	70.2%	29.8%
Southern Operations Group			
Upper South East	338	67.2%	32.8%
Lower South East	346	56.4%	43.6%
Adelaide Hills, Southern Fleurieu, Kangaroo Island	151	74.2%	25.8%
Mallee Coorong	281	73.3%	26.7%
Central Operations Group			
Riverland	366	55.7%	44.3%
Yorke, Lower North	251	70.1%	29.9%
Barossa, Gawler, Eudunda, Kapunda	266	75.6%	24.4%
Total	3382	65.6%	34.4%

Appendix 4: Subsidiary scores derived from SAQ responses of direct, indirect and Central Office staff.

Subsidiary SAQ scores. Items not utilised in the calculation of the six SAQ factor scores were grouped by four senior health researchers in terms of their content and labelled accordingly. Five subsidiary scores were developed and their method of calculation was similar to that of the Sexton and Helmreich factors. The subsidiary scores complement and to some extent overlap with the six factor scores. Some items are reverse scored as indicated.

The Safety Practices in My Workplace scores provides a measure of how well safety was perceived to be enabled in the respondent's workplace. The nine items contributing to it are shown in table 81. Direct care staff (3.41) and indirect care staff (3.39) had similar average scores, both of which were in the lower half of the 3-4 score band. Central Office staff had a lower mean score of 2.96.

Table 81: Items contributing to the Safety Practices in My Workplace score* (n=9 items)

1. High levels of workload are common in my clinical area.
23. The equipment in my clinical area is adequate.
27. I have seen others make error(s) that had the potential to harm patients/clients.
46. Senior clinicians in my clinical area are doing a good job.
52. There is widespread adherence to clinical guidelines and evidence-based criteria regarding patient safety in this clinical area.
55. Information obtained through incident reports is used to make patient care safer in my clinical area.
57. Personnel frequently disregard rules and guidelines (e.g., handwashing, treatment protocols/clinical pathways, sterile field, etc.) that are established for this clinical area.
60. Staff in my health service practise effective hand hygiene.
62. My health service manages medications safely.

*Items are from the Direct Patient Care Survey Form. # Item reverse scores

The Communication score is an index of the quality of safety communication. The seven items on this scale are listed in table 82. Direct care staff had a higher mean Communication score (3.85) than did indirect care staff (3.58). Central Office staff had a lower average score of 3.29.

Table 82: Items contributing to the Communication score* (n=7 items)

12. Briefing other personnel before a procedure is important for patient/client safety.
13. Clinical discussions are common in my clinical area.
37. During emergencies, I can predict what other personnel are going to do next.
39. I am frequently unable to express disagreement with senior clinicians in my area.
51. Important issues are well communicated at shift changes.
61. All necessary information is transferred to the appropriate person to ensure safe care.
63. In cases where a patient/client has been harmed, information is disclosed openly to patients/clients and relatives.

*Items are from the *Direct Patient Care Survey Form*

Personal knowledge and practices regarding safety scores examined what respondents knew about and how they acted regarding safety issues. The SAQ items contributing to the score are shown in table 83. Indirect care staff had the highest mean score (3.59) followed by direct care staff (3.53) and Central Office (3.20).

Table 83: Items contributing to the Personal Knowledge and Practices Regarding Safety score* (n=8 items)

#33. Stress from personal problems adversely affects my performance.
36. Disruptions in continuity of care (e.g., shift changes, patient transfers, etc.) can be detrimental to patient/client safety.
#40. Very high levels of workload stimulate and improve staff performance.
41. Truly professional personnel can leave personal problems behind when working.
45. I have made errors that had the potential to harm patients/clients.
48. If necessary, I know how to report errors that happen in my clinical area.
56. During emergency situations (e.g., emergency resuscitations), my performance is not affected by working with inexperienced or less capable personnel.
58. I have taken remedial action to solve an error in my clinical area.

*Items are from the *Direct Patient Care Survey Form*

Error reporting culture in my workplace scores is concerned with how well error is dealt with in the workplace. The items relevant to this score are shown in table 84. Direct care providers had the highest mean score (3.92) followed by indirect care staff (3.85) and Central Office staff (3.23).

Table 84: Items contributing to the Error Reporting in My Workplace score* (n=5 items)

18. Decision-making in my clinical area makes it easy to learn from the errors of others.

47. All the personnel in my clinical area take responsibility for patient/client safety.

49. Patient/client safety is constantly reinforced as the priority in this clinical area.

53. Personnel are not punished for errors reported through incident reports.

54. Error reporting is supported in my clinical area.

*Items are from the *Direct Patient Care Survey Form*

Social support in my workplace scores provide an estimate of social cooperation and support in the workplace. The four items contributing to the score are listed in table 85. Direct care providers (3.80) had the highest mean score followed by indirect care staff (3.79) and Central Office personnel (3.19).

Table 85: Items contributing to the Social Support in My Workplace score* (n=4 items)

19. My health service encourages teamwork and cooperation amongst its personnel.

44. I know the first and last names of all the personnel I worked with during my last shift.

50. Interactions in this clinical area are collegial, rather than hierarchical.

59. My organisation's attempts to meet the cultural needs of Aboriginal and Torres Straight Islander people have been effective.

*Items are from the *Direct Patient Care Survey Form*

Summary of findings. The mean responses of the three staff streams to the subsidiary scales echoed the groups' pattern of responses to the six SAQ scales of Sexton and Helmreich. The direct care group had much higher mean scores than the indirect group for two of the subsidiary measures, *Communication* and *Error Reporting in My Workplace*, reflecting their typically more positive safety related attitudes as revealed in their SAQ factor scores. The two groups had similar mean scores on the other three subsidiary measures. No mean subsidiary scores were favourable enough to reach a score of 4. The mean subsidiary scores of Central Office staff were all lower than those of the other two staff groups reflecting the lack of clinical experience and different workplace environment of most Central Office staff.

Appendix 5: Benchmarking: comparisons of South Australian SAQ scores with findings from surveys in the UK, USA and New Zealand health facilities

An advantage of the SAQ is that compared to other safety climate and culture surveys it has "been more widely used for a longer period of time, so there is benchmarking data available.… [This] allows organizations to evaluate their own climate data" (Sexton, Helmreich et al 2006, p.6). In their 2006 publication the authors reported the results of surveys in 203 health sites, involving 10,843 staff in three countries; the UK, USA and New Zealand. The sites were predominantly ICUs, 11 were ambulatory clinics, 11 were wards (described as "general inpatient settings; medical ward, surgical ward etc.") and two were ORs. The studies targeted all staff in the settings including technicians and ward staff as well as direct care health professionals.

To make appropriate comparisons between the findings published by Sexton, Helmreich et al 2006 and the results of the South Australian survey, four "primary work areas" were selected from item 16 in the survey as approximately comparable sites viz "general ward", "health/medical clinic", "surgery" and "intensive care". The SAQ factor scores of both direct and indirect care staff who said these were their main work settings were combined as Sexton, Helmreich et al 2006 included both groups in their studies. As explained in the method section of this report the SA respondents' SAQ scores were calculated by adding the scores of all items contributing to the score (after reversing scoring on some items) and then dividing by the number of items contributing to the score. In other words the SAQ scores we report are an average of the respondent's answers to the relevant items. When scoring the SAQ Sexton, Helmreich et al 2006 followed the procedure just described then subtracted one from the total score and multiplied the resultant by 25. This allowed them to express respondents' scores on a 100-point scale. In the tables below in which comparisons are made between SA respondents and those from the overseas sites we have converted SA respondents' scores to the 100 point scales used by Sexton, Helmreich et al. Additionally SA participants' original SAQ scale scores, as used in the present survey, are also shown in the tables. The tables below are presented partially after each of the sub-sections in section 5 which discuss the SAQ factors individually.

Table 86 shows the mean SAQ scores of general ward staff studied by Sexton, Helmreich et al in 11 American ward settings and South Australian staff in general wards. The SA sample had higher scores on the Team Climate, Safety Climate, Job Satisfaction, Perception of Management and Working Conditions Scales but lower scores on the Stress Recognition Scale than their American counterparts.

Table 86: SAQ scores of ward staff in 11 USA sites and South Australian wards

Research Setting	Mean SAQ scale scores*					
	Team climate	Safety climate	Job satisfaction	Stress recognition	Perception of management	Working conditions
General wards, USA (11 sites, 1531 staff)	64.3	60.5	59.6	74.4	38.3	49.2
General wards, SA (1733 staff)	70.7 (3.83)	72.5 (3.90)	73.0 (3.92)	68.5 (3.74)	60.0 (3.40)	63.7 (3.55)

* Scores were derived using Sexton & Helmreich's formula: subtract 1 from scale score and multiply it by 25. The scale scores of SA respondents are shown in brackets

The SAQ scores of staff in ambulatory clinics in 11 American sites are shown in table 87 together with the responses of SA staff working in health/medical clinics. On all scales except Stress Recognition the SA health care staff scores were higher than those of the American clinic staff.

Table 87: SAQ scores of ambulatory clinic staff in 11 USA sites and South Australian health/medical clinics

Research Setting	Mean SAQ scale scores*					
	Team climate	Safety climate	Job satisfaction	Stress recognition	Perception of management	Working conditions
Ambulatory clinics, USA (11 sites, 281 staff)	69.7	69.6	70.6	66.7	55.3	61.6
Health/medical clinics, SA (376 staff)	74.2 (3.97)	75.0 (4.00)	76.7 (4.07)	63.7 (3.55)	65.4 (3.61)	65.5 (3.62)

* Scores were derived using Sexton & Helmreich's formula: subtract 1 from scale score and multiply it by 25. The scale scores of SA respondents used in the present research are shown in brackets

Table 88 shows the scores of OR staff in two UK sites and SA care staff whose main work area was surgery. SA respondents had higher scores than the British sample on all SAQ scales.

Table 88: Mean scores of operating room staff in two UK sites and South Australian staff whose main work area is surgery.

Research Setting	Mean SAQ scale scores*					
	Team climate	*Safety climate*	*Job satisfaction*	*Stress recognition*	*Perception of management*	*Working conditions*
ORs, UK (2 sites, 385 staff)	71.7	69.6	70.1	54.7	47.6	57.5
Surgery, SA (423 staff)	72.3 (3.89)	73.4 (3.94)	73.4 (3.94)	66.5 (3.66)	62.1 (3.48)	63.4 (3.54)

* Scores were derived using Sexton & Helmreich's formula: subtract 1 from scale score and multiply it by 25. The scale scores of SA respondents are shown in brackets

The SAQ scores of health workers in ICUs in four countries are shown in table 89. The British ICU staff had higher scores than the South Australians on the Team Climate Scale and had higher Working Conditions scores. On the Job Satisfaction, Perception of Management, Stress Recognition and the Safety Climate Scales the South Australians had higher scores than the British ICU staff though the difference in the Safety Climate scores of the two groups was not great. The New Zealand sample had slightly higher scores than the SA group on the Stress Recognition Scale but had lower scores on all other factors, though the difference between the two groups' Team Climate scores was not great. The American ICU staff scored lower on all scales than did their South Australian counterparts though none of the differences were marked and in the case of the Working Conditions Scale the scores of the two groups were very similar.

Table 89: SAQ scores of ICU staff in the UK, USA, New Zealand and South Australia

Research Setting	Mean SAQ scale scores*					
	Team climate	*Safety climate*	*Job satisfaction*	*Stress recognition*	*Perception of management*	*Working conditions*
ICUs, UK (106 sites, 4856 staff)	74.3	67.7	60.7	64.2	44.6	59.6
ICUs, New Zealand (20 sites, 761 staff)	67.9	63.8	59.9	71.7	45.3	53.7
ICUs, USA (53 sites, 3029 staff)	65.7	68.8	68.6	67.2	54.1	58.3
ICUs, SA (429 staff)	68.1 (3.72)	69.2 (3.77)	70.1 (3.80)	69.3 (3.77)	56.3 (3.25)	58.5 (3.34)

* Scores were derived using Sexton & Helmreich's formula: subtract 1 from scale score and multiply it by 25. The scale scores of SA respondents are shown in brackets

Overall the comparisons between the SA survey participants and comparable groups of health care staff in three other western nations reflected very favourably on the South Australians. The least positive finding was that in three of the six sets of comparisons made, the SA care staff had lower Stress Recognition scores than their overseas counterparts. There were no instances of SA staff having lower scores than other groups on the Safety Climate, Job Satisfaction or Perception of Management Scales. It is noteworthy that the four types of SA work areas that we were able to utilise in the benchmarking were within the middle range of SA performers in terms of the six factor scores. None of them were primary work areas that were among the top three or lowest three scorers on the factors with the exception of intensive care which had one of the lowest Perception of Management scores of any SA work area. No data was available for benchmarking of the Central Office results.

Sexton, Helmreich et al 2006 indicated that the SAQ studies that have been used here for benchmarking the SA results were conducted between 2002 and 2003. Changing health practices, knowledge and standards may have resulted in some of the sites they tested currently having superior safety climates and cultures than they exhibited when studied. Within the large number of sites that Sexton, Helmeich et al 2006 placed in six groupings (which were used in our comparisons) there were of course a range of means across the various sites included in each grouping. Thus there were some sites that performed more positively on the SAQ than their SA counterparts did and some sites that performed below the group mean given by Sexton, Helmreich et al 2006 and very much lower than the SA groups' means. A similar variation in performance would no doubt emerge if various ICUs, wards or clinics across South Australia were compared.

Appendix 6: Results of ANOVAs comparing SAQ factor and subsidiary scores of direct, indirect and Central Office staff

Table 90: Results of ANOVAs comparing SAQ factor and subsidiary scores of direct, indirect and Central Office staff

Factor/score	F	P*	Provider group means *Results of Duncan range tests+*		
Sexton, Helmreich factors					
Teamwork climate	295.9	<0.000	Central 3.23	Indirect 3.75	Direct 3.89
Safety climate	281.9	<0.000	Central 3.78	Indirect 3.83	Direct 3.94
Job Satisfaction	163.8	<0.000	Central 3.43	Indirect 3.86	Direct 3.96
Stress recognition	152.8	<0.000	Indirect 3.52	Direct 3.71	Central 3.99
Perception of Management	104.8	<0.000	Central 3.06	Direct 3.44	Indirect 3.52
Working conditions	245.1	<0.000	Central 2.88	Indirect 3.43	Direct 3.57
Subsidiary scores					
Safety practices in my workplace	202.9	<0.000	Central 2.96	Indirect 3.39#	Direct 3.41#
Communication	655.0	<0.000	Central 3.29	Indirect 3.58	Direct 3.85
Personal safety knowledge & practices	250.8	<0.000	Central 3.20	Direct 3.53	Indirect 3.59
Error reporting culture in my workplace	362.2	<0.000	Central 3.23	Indirect 3.85	Direct 3.92
Social support in my workplace	249.5	<0.000	Central 3.19	Indirect 3.79#	Direct 3.80#

* DF=2/14607to 15256
+ The Duncan range test investigates which means in the set differ significantly each other
# These means do not differ significantly from each other but both differ significantly from the Central Office mean

Appendix 7: Results of ANOVAs comparing SAQ factor scores of major health professional groups

Table 91: Results of ANOVAs comparing SAQ factor scores of doctors (n=1011), nurses/midwives (n=6161), allied health[@] (n=1505) and administrative clerical staff (n=3036) from all staff streams

SAQ factors	F	*P*+	Professional group means
			***Results of Duncan range tests*++**
Teamwork Climate	44.48	<0.000	Admin. Doctors Nurses Allied H. 3.69 3.84* 3.86* 3.89*
Safety Climate	68.09	<0.000	Admin. Doctors Allied H. Nurses 3.75 3.81 3.93* 3.95*
Job Satisfaction	19.50	<0.000	Admin. Doctors Nurses Allied H. 3.79 3.92* 3.92* 3.93*
Stress Recognition	68.60	<0.000	Admin. Allied H. Nurses Doctors 3.54 3.68 3.75 3.89
Perception of Management	10.95	<0.000	Doctors Allied H. Nurses Admin. 3.31 3.41* 3.44*# 3.47#
Working Conditions	42.50	<0.000	Admin Allied H. Nurses Doctors 3.33. 3.51* 3.54* 3.55*

[@]Allied Health (therapy) and (diagnostic/technical) groups were combined
* df=3/11480 to 11673 as some respondents did not answer all items
+ The Duncan range test investigates which means in the set differ significantly from each other
* #These means do not differ significantly from each other but differ significantly from unstarred/unhashed means. For Perception of Management scores Allied Health* and Nurses/midwives* do not differ significantly from each other and Nurses/midwives# do not differ significantly from Administration but allied health staff have significantly lower scores than do administration

Appendix 8: Responses of the total SA population, direct care providers, indirect care staff and Central Office staff to the 63 individual SAQ items and tables of items attracting the highest levels of agreement and disagreement from each staff group

Q1: High levels of workload are common

Total All Forms
High levels of workload are common

Direct care form
High levels of workload are common in my clinical area

In-Direct care form
High levels of workload are common in my health service
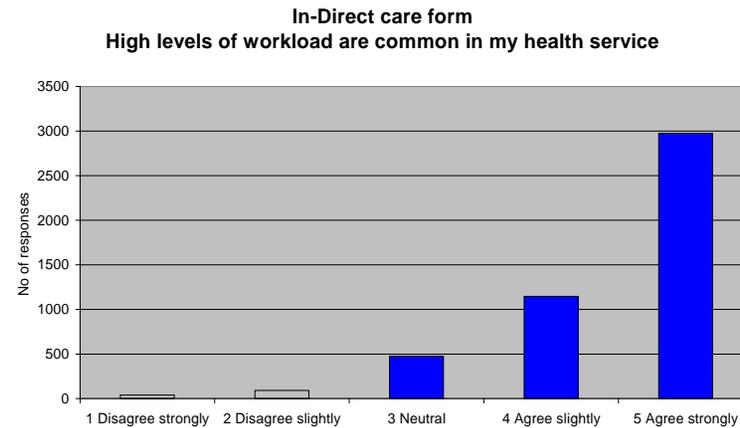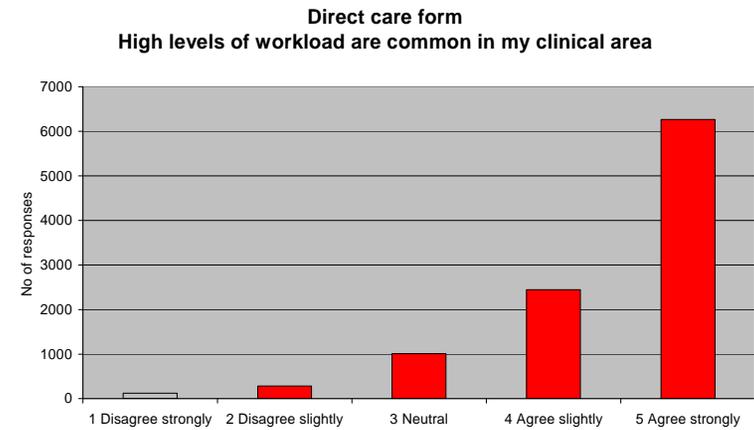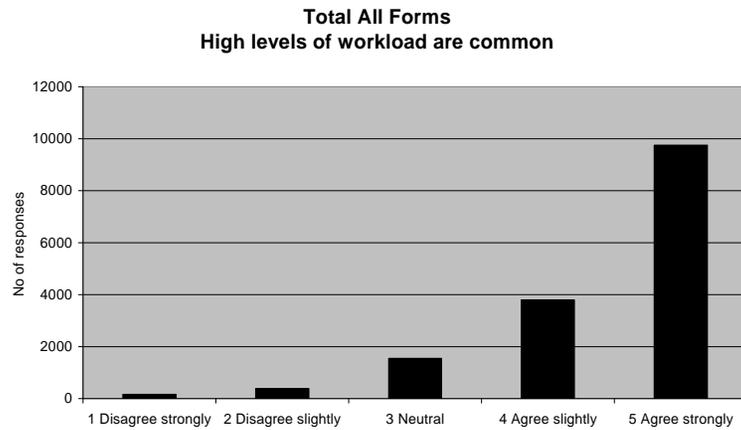
Q2: I like my job

Total All Forms
I like my job
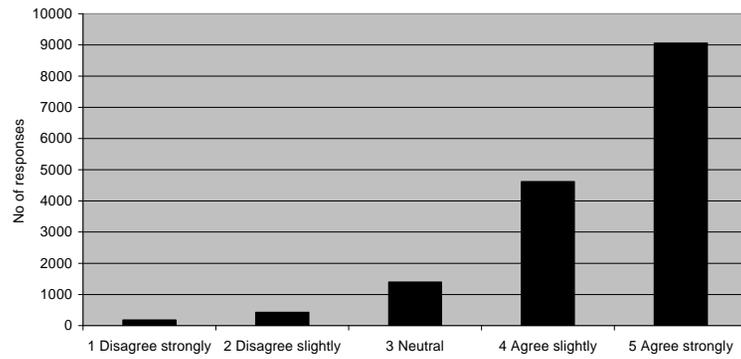
Direct care form
I like my job
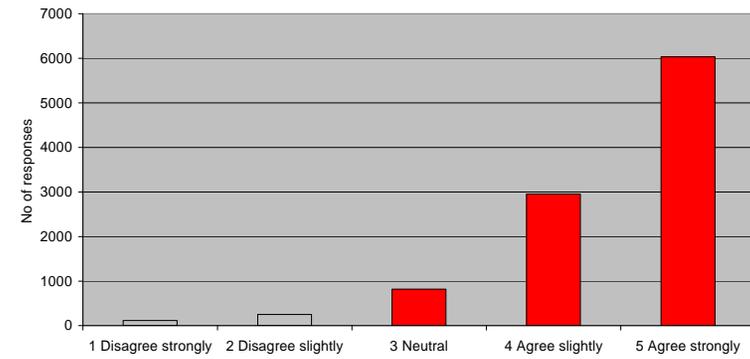
In-Direct care form
I like my job
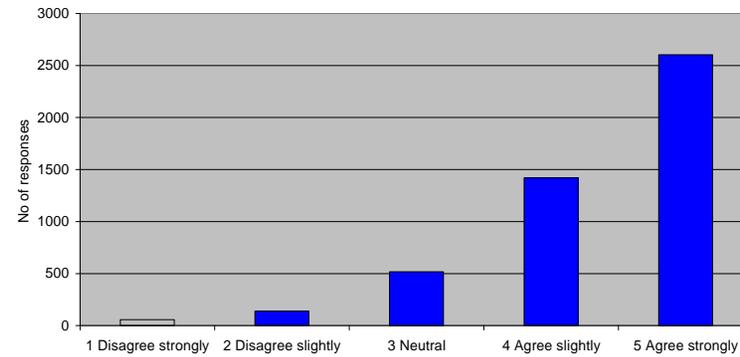
Q3: Input is well received

Total All Forms
Input is well received
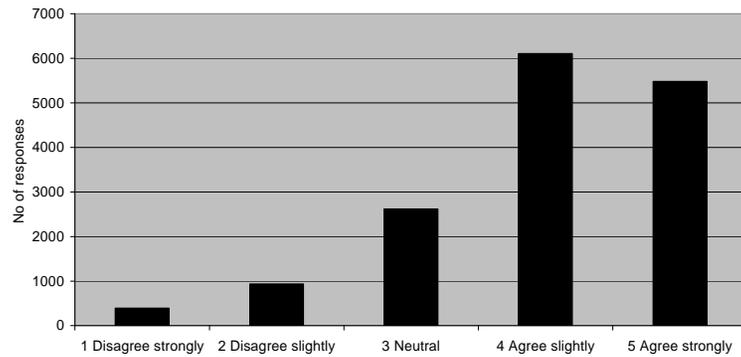
Direct care form
Clinical input is well received in my area
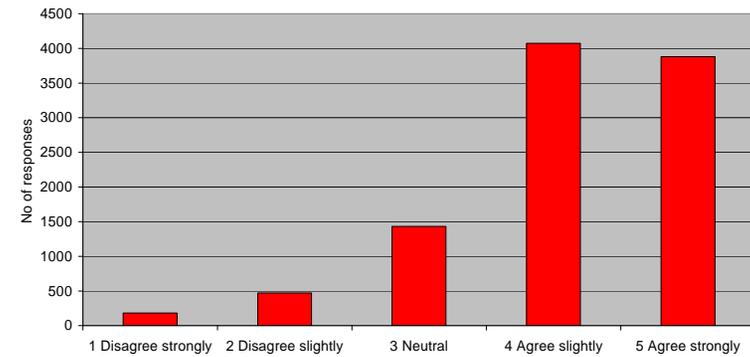
In-Direct care form
My input is well received in this health service
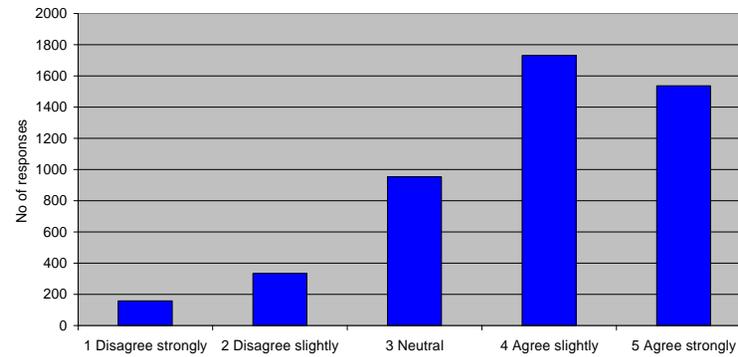
Q4: I would feel safe being treated

Total All Forms
I would feel safe being treated
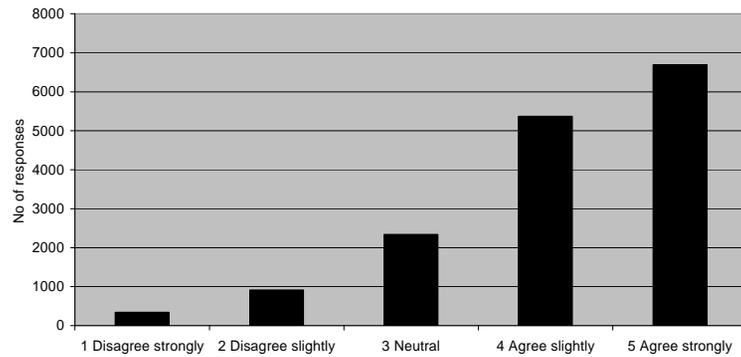
Direct care form
I would feel safe being treated here as a patient/client
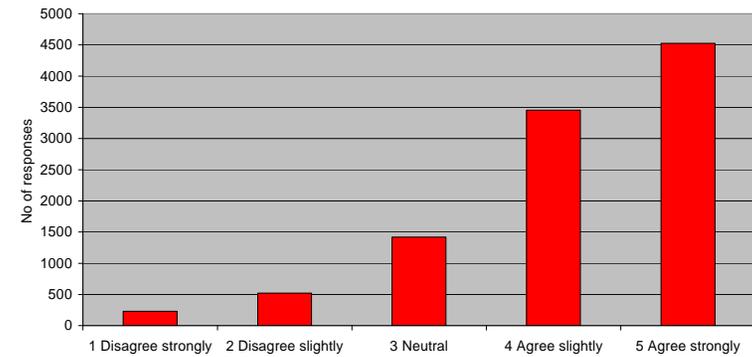
In-Direct care form
I would feel safe being treated here as a patient/client
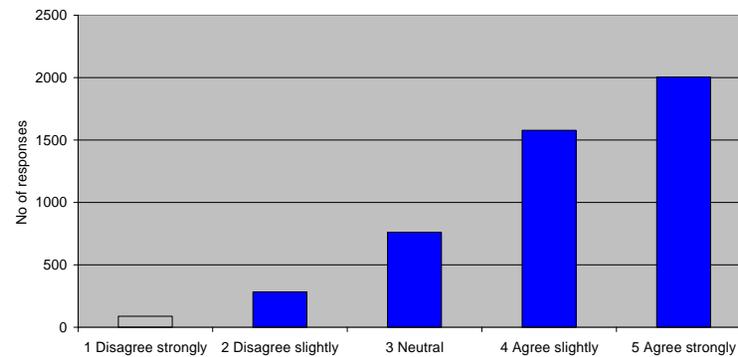
Q5: Errors are handled appropriately

Total All Forms
Errors are handled appropriately

Direct care form
Errors are handled appropriate in my clinical area

In-Direct care form
Errors are handled appropriately in my health service
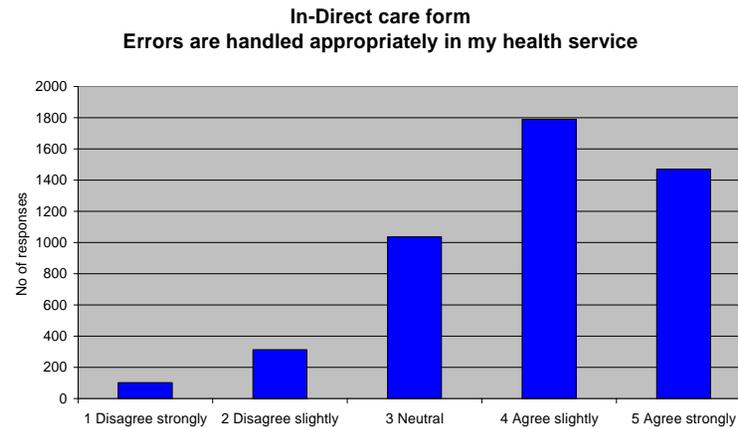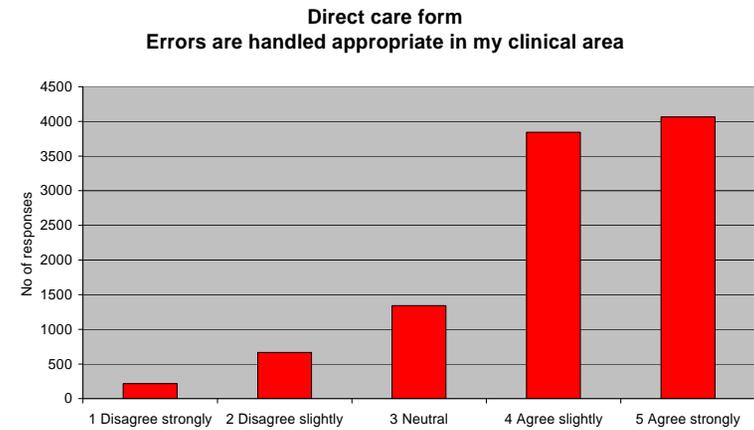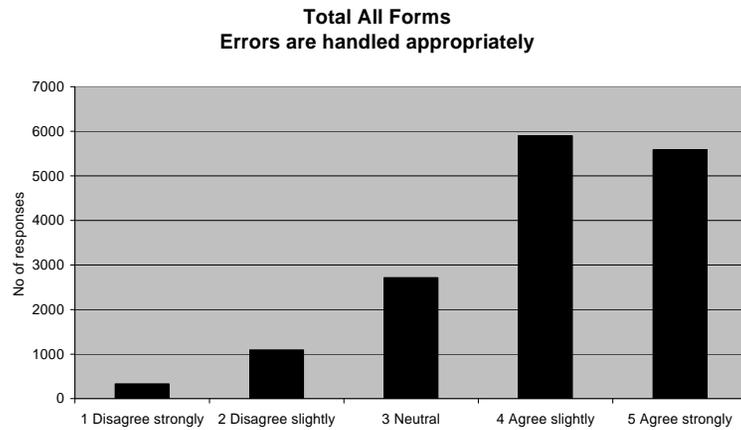
* Note: the Department of Health responses relate to perceptions of the handling of clinical errors in the overall health system

Q6: The health service does a good job training new personnel

Total All Forms
The health service does a good job training new personnel

Direct care form
The health service does a good job training new personnel

In-Direct care form
The health service does a good job training new personnel
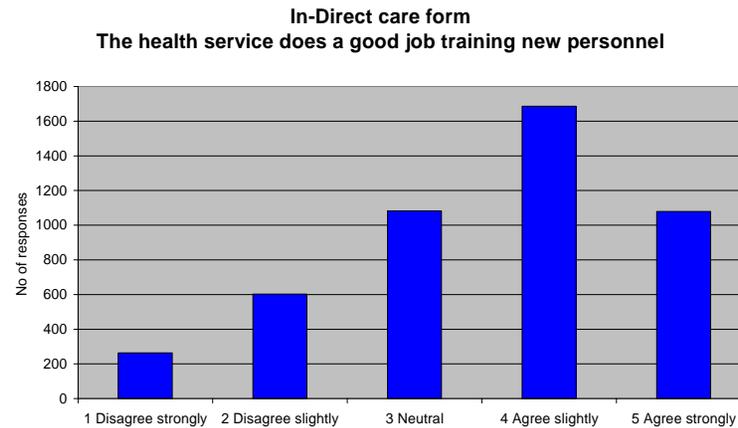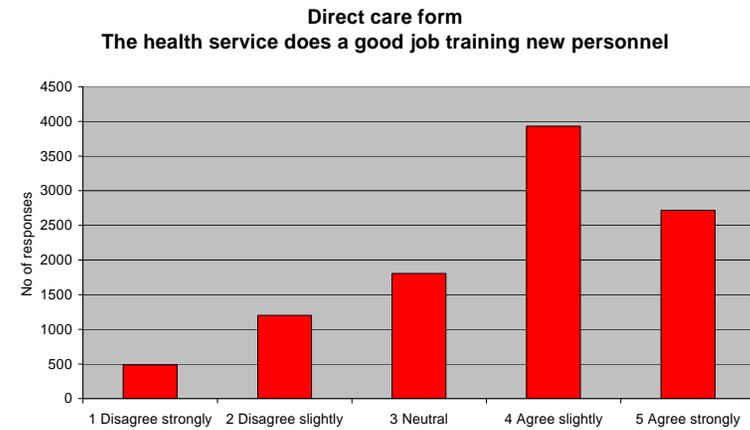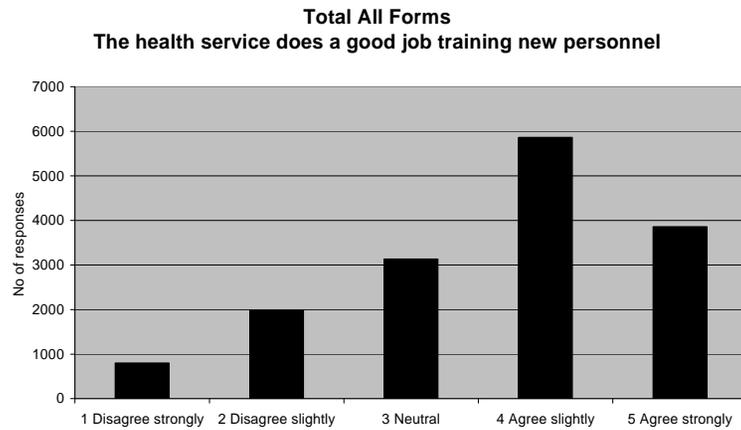
* Note: the Department of Health responses relate to perceptions of training new personnel in the overall health system

Q7: All necessary information for diagnostic and therapeutic decisions is routinely available

Total All Forms
All necessary information for diagnostic and therapeutic decisions is routinely available

Direct care form
All necessary information for diagnostic and therapeutic decisions is routinely available to me

In-Direct care form
All necessary information for diagnostic and therapeutic decisions is routinely available to clinical staff

Q8: Working here is like being part of a large family

Total All Forms
Working here is like being part of a large family

Direct care form
Working in this health service is like being part of a large family

In-Direct care form
Working in this health service is like being part of a large family

Q9: My administration supports my daily efforts

Q10: I receive appropriate feedback about my performance

Total All Forms
I receive appropriate feedback about my performance

Direct care form
I receive appropriate feedback about my performance
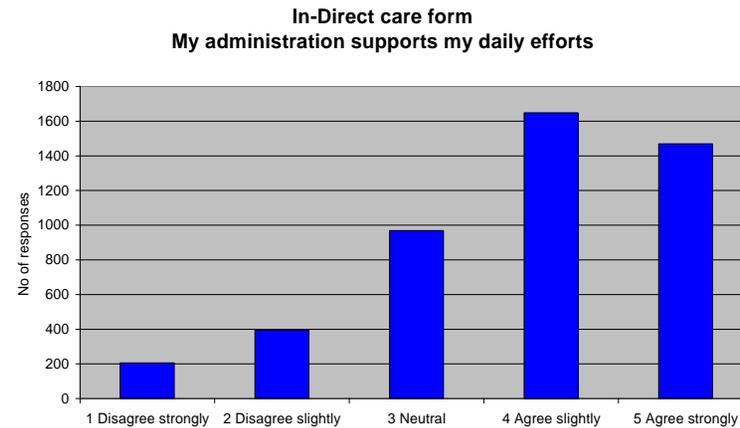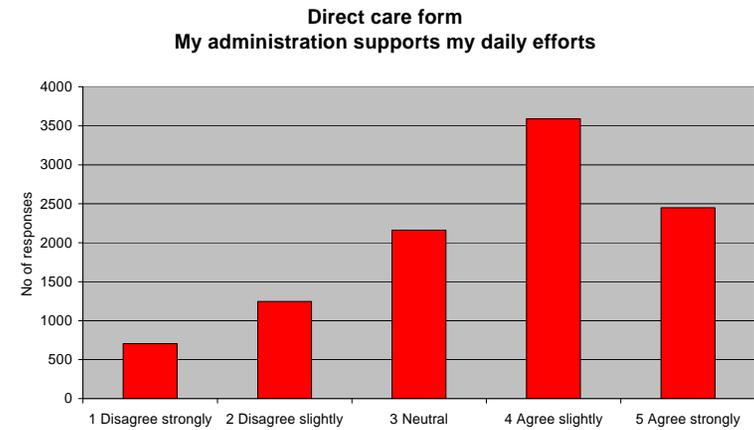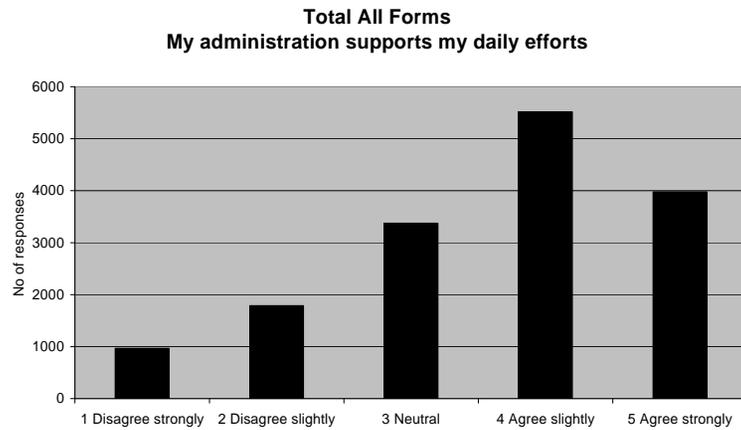
In-Direct care form
I receive appropriate feedback about my performance
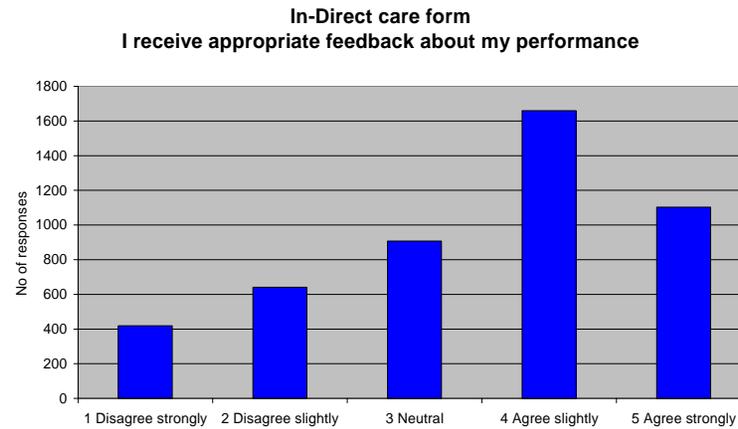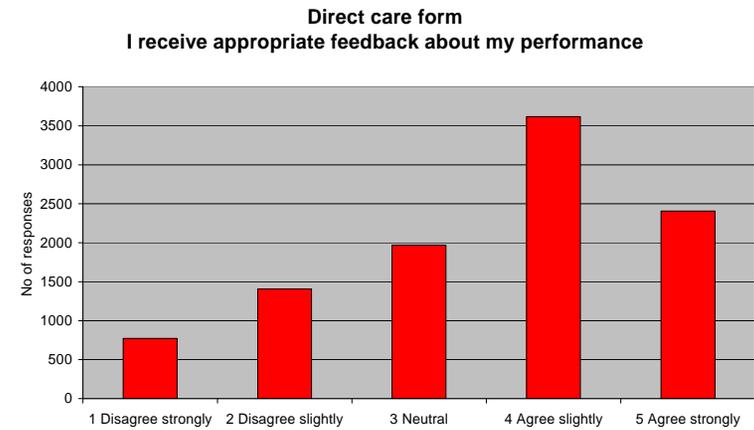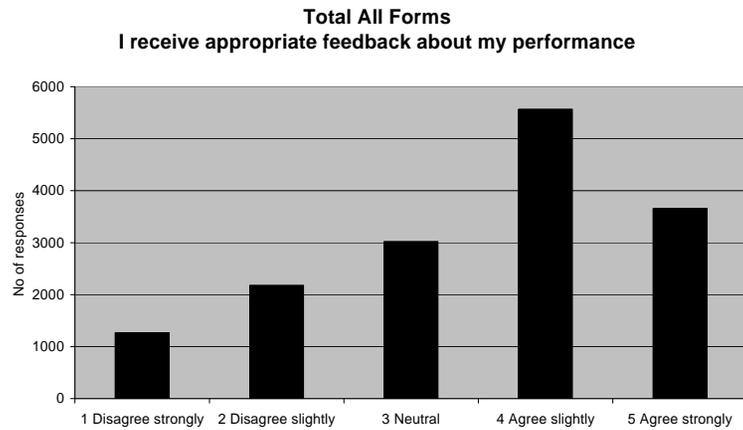
Q11: It is difficult to discuss errors

Total All Forms
It is difficult to discuss errors
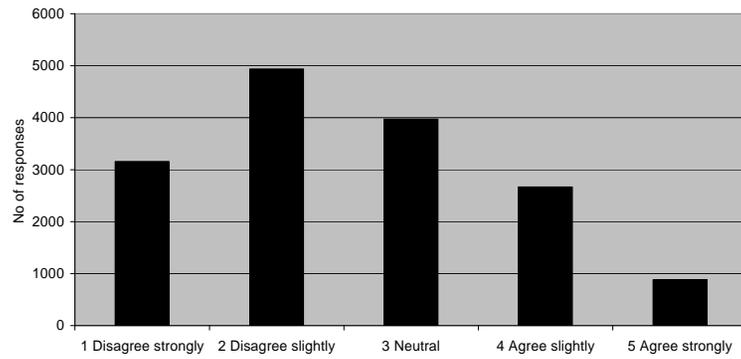
Direct care form
In this area it is difficult to discuss errors
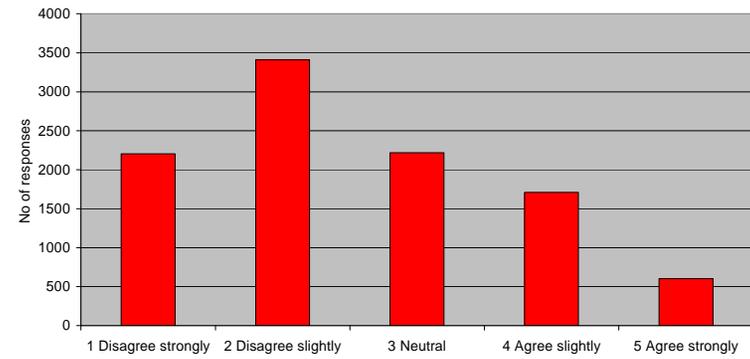
In-Direct care form
In my health service it is difficult to discuss errors
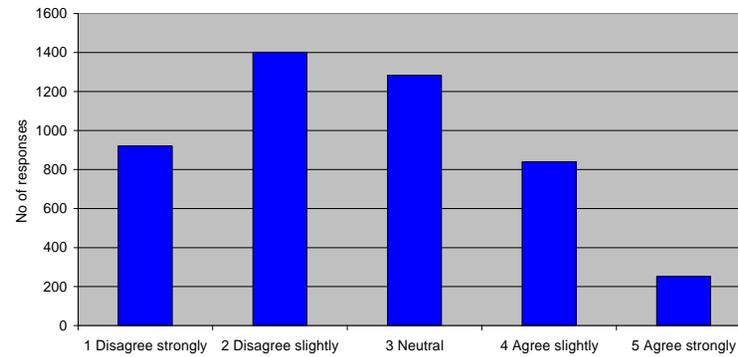
Q12: Briefing other personnel before a procedure is important for patient/client safety

Total All Forms
Briefing other personnel before a proceedure is important for patient/client safety
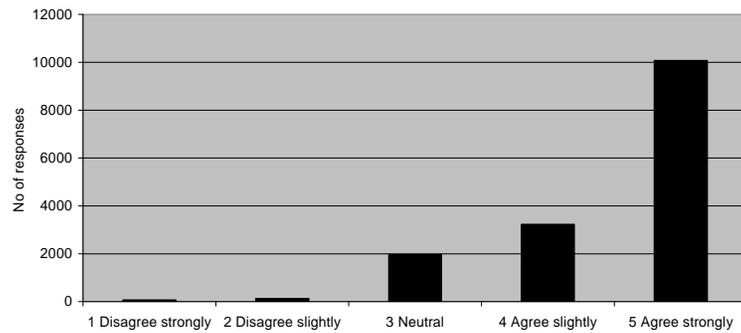
Direct care form
Briefing other personnel before a proceedure is important for patient/client safety
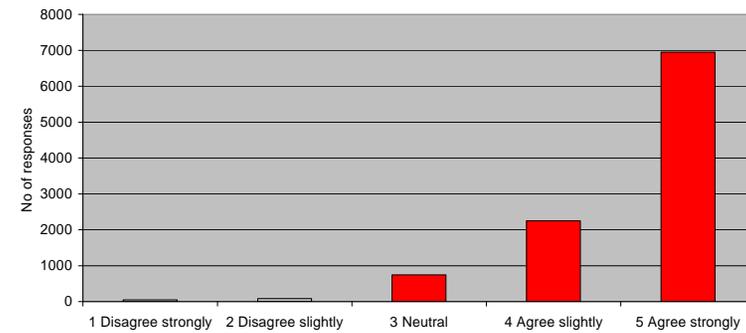
In-Direct care form
Briefing other personnel before a proceedure is important for patient/client safety
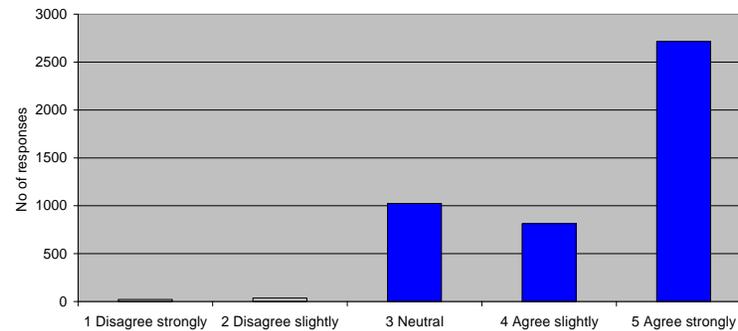
Q13: Discussions are common

Total All Forms
Discussions are common
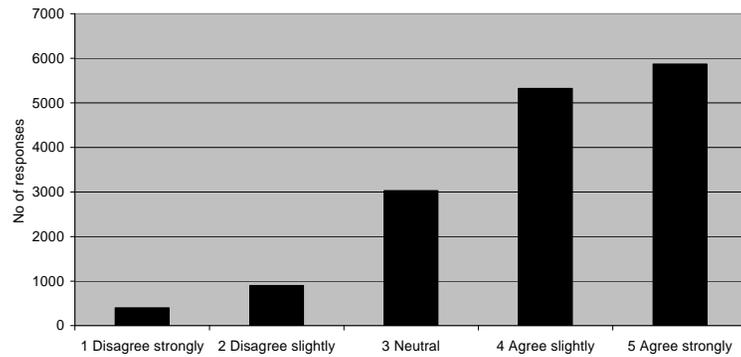
Direct care form
Clinical discussions are common in my clinical area
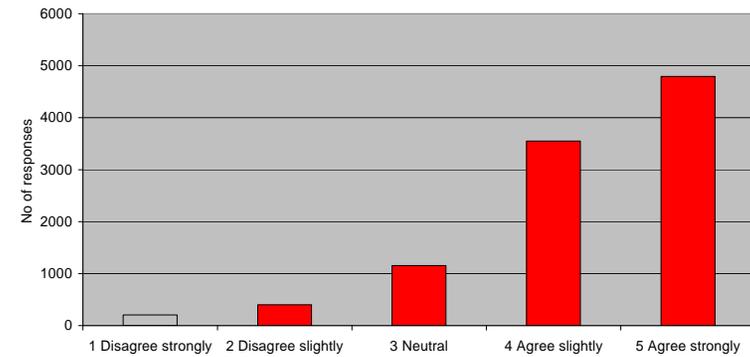
In-Direct care form
Briefings are common in my health service
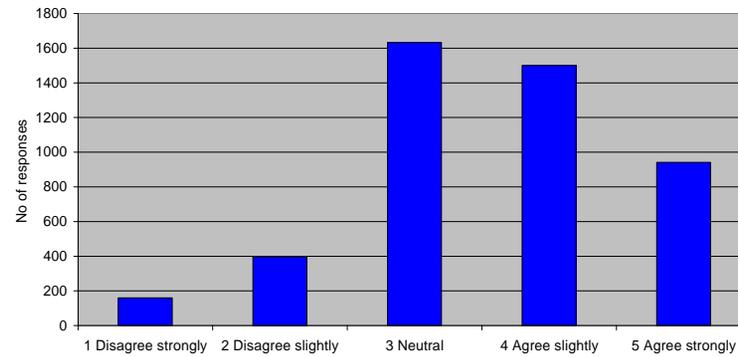
Q14: Here is a good place to work

Total All Forms
Here is a good place to work
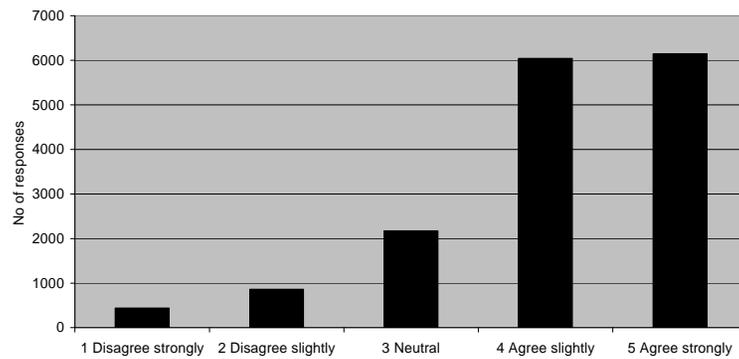
Direct care form
This health service is a good place to work
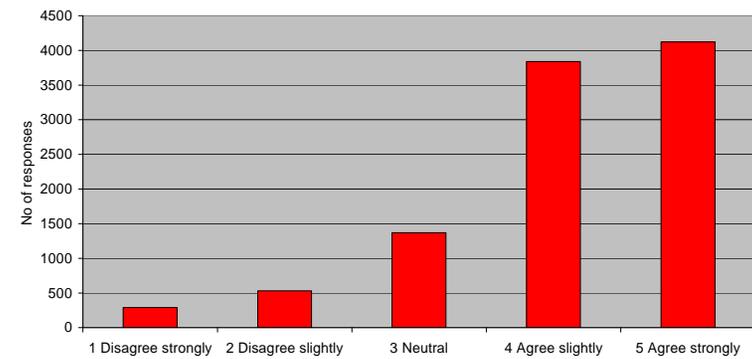
In-Direct care form
My health service is a good place to work

Q15: Fatigue impairs performance during emergency situations

Total All Forms
Fatigue impairs performance during emergency situations

Direct care form
Fatigue impairs my performance during emergency situations

In-Direct care form
Fatigue impairs my performance during emergency situations

Q16: Management does not knowingly compromise the safety of patients/clients

Total All Forms
Management does not knowingly compromise the safety of patients/clients

Direct care form
My health service's management does not knowingly compromise the safety of patients/clients

In-Direct care form
My health service's management does not knowingly compromise the safety of patients/clients
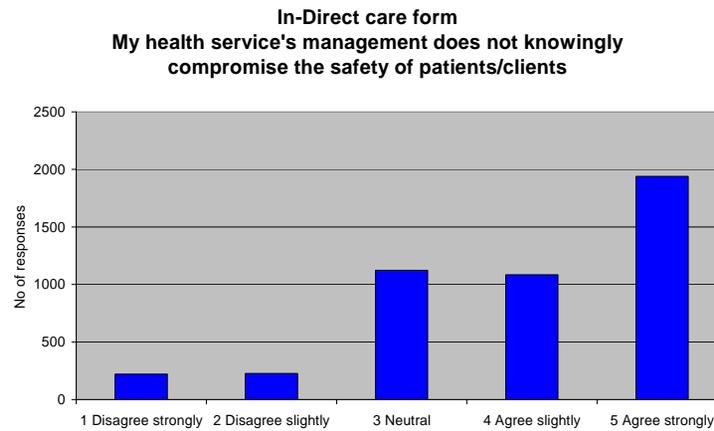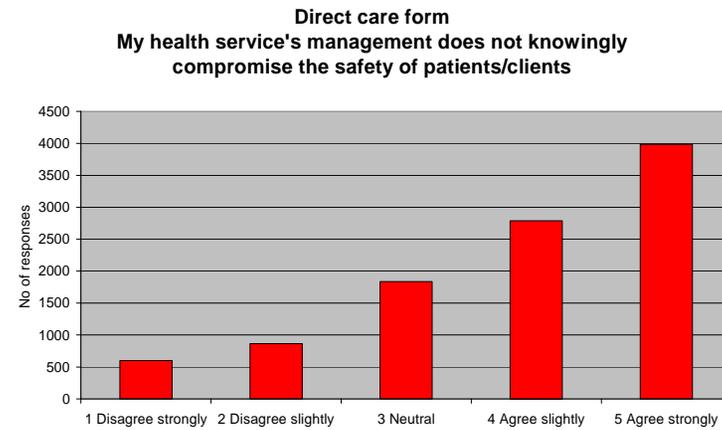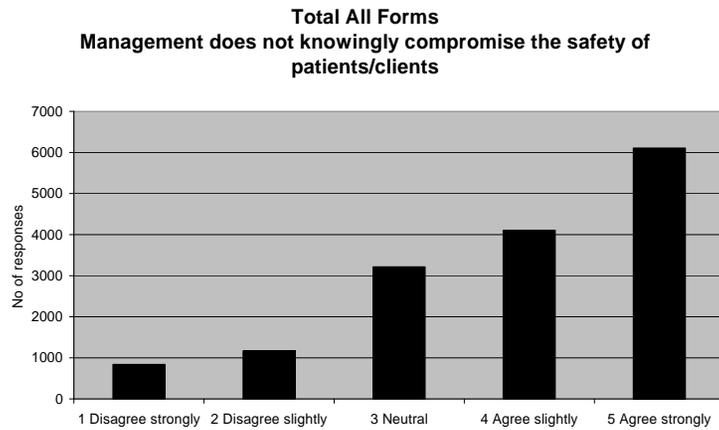
Q17: Levels of staffing are sufficient

Total All Forms
Levels of staffing are sufficient
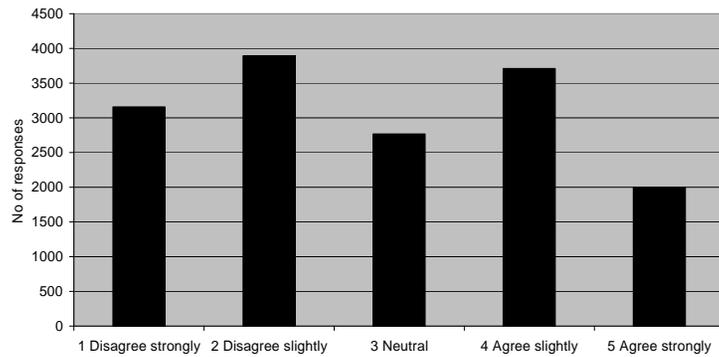
Direct care form
Levels of staffing in my clinical area are sufficient to handle the number of patients/clients
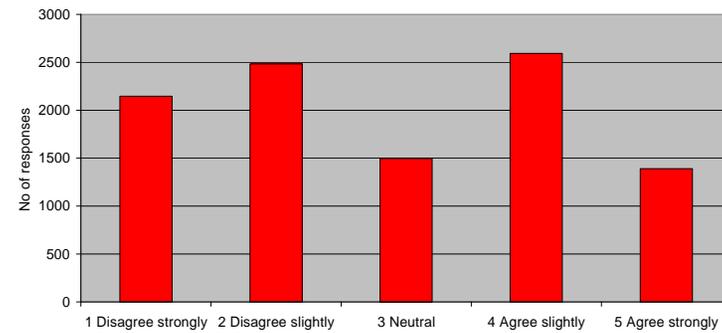
In-Direct care form
Levels of staffing in my clinical area are sufficient to handle the number of patients/clients

Q18: Decision-making makes it easy to learn from the errors of others

Total All Forms
Decision-making makes it easy to learn from the errors of others

Direct care form
Decision-making in my clinical area makes it easy to learn from the errors of others
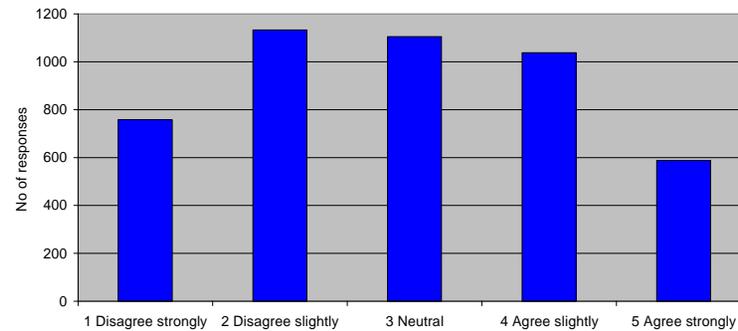
In-Direct care form
Decision-making in my area makes it easy to learn from the errors of others

Q19: The service encourages teamwork and cooperation amongst its personnel

Total All Forms
The service encourages teamwork and cooperation amongst its personnel

Direct care form
My health service encourages teamwork and cooperation amongst its personnel

In-Direct care form
My health service encourages teamwork and cooperation amongst its personnel

Q20: I am encouraged by my colleagues to report any patient/client safety concerns I may have

Total All Forms
I am encouraged by my colleagues to report any patient/client safety concerns I may have

Direct care form
I am encouraged by my colleagues to report any patient/client safety concerns I may have

In-Direct care form
I am encouraged by my colleagues to report any patient/client safety concerns I may have
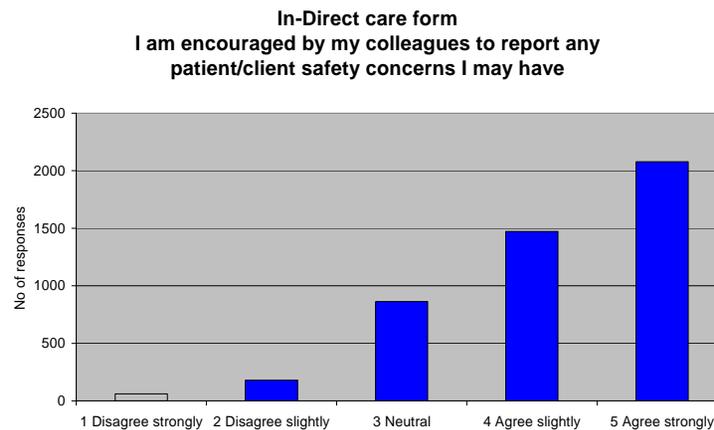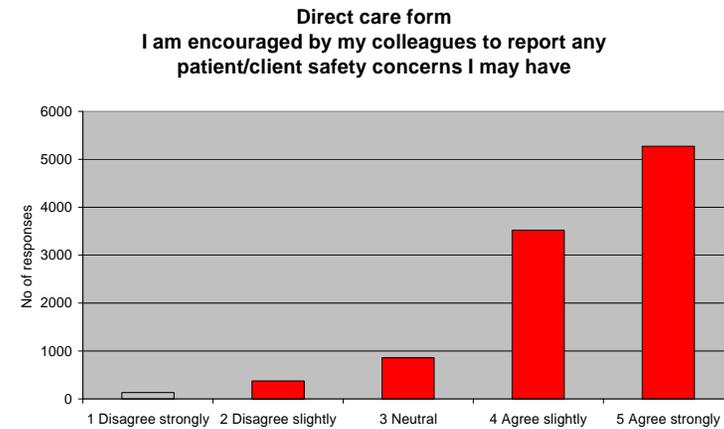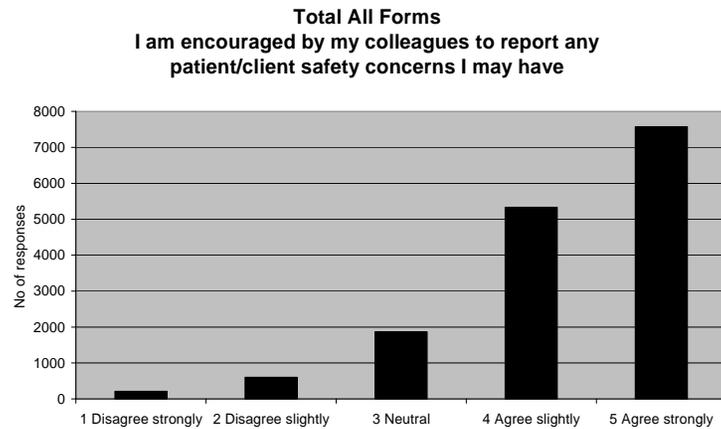
Q21: The culture makes it easy to learn form the errors of others

Total All Forms
The culture makes it easy to learn from the errors of others

Direct care form
The culture in my clinical area makes it easy to learn from the errors of others

In-Direct care form
The culture in my area makes it easy to learn from the errors of others

Q22: The system constructively deals with problem professional staff and employees

Total All Forms
The system constructively deals with problem professional staff and employees

Direct care form
My health service constructively deals with problem professional staff and employees

In-Direct care form
My health service constructively deals with problem professional staff and employees
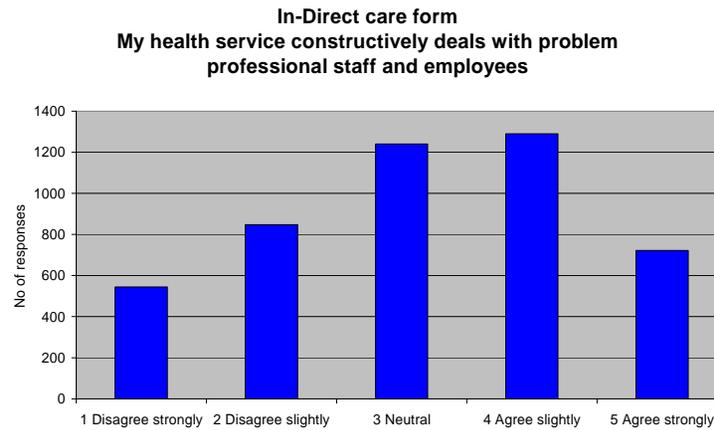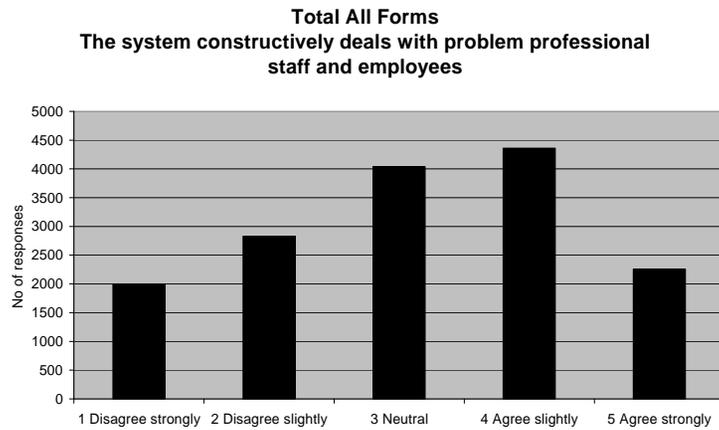
Q23: The equipment is adequate

Total All Forms
The equipment is adequate
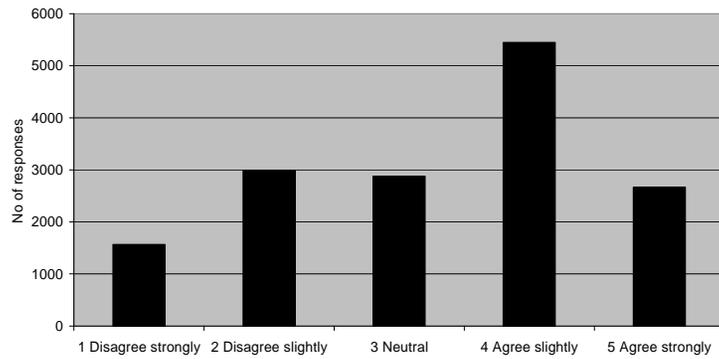
Direct care form
The equipment in my clinical area is adequate
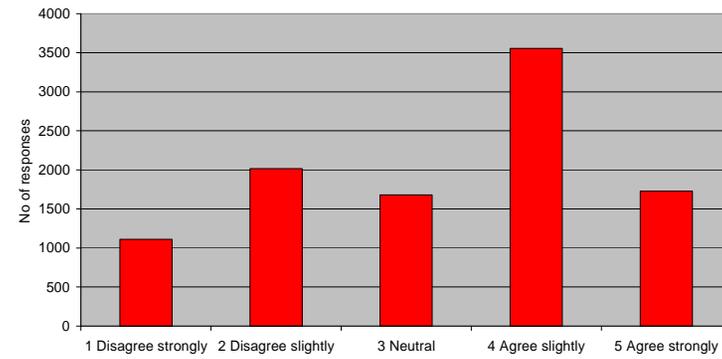
In-Direct care form
The equipment in my area is adequate

Q24: It is difficult to speak up if I perceive a problem with patient/client care

Total All Forms
It is difficult to speak up if I perceive a problem with patient/client care

Direct care form
In my clinical area it is difficult to speak up if I perceive a problem with patient/client care
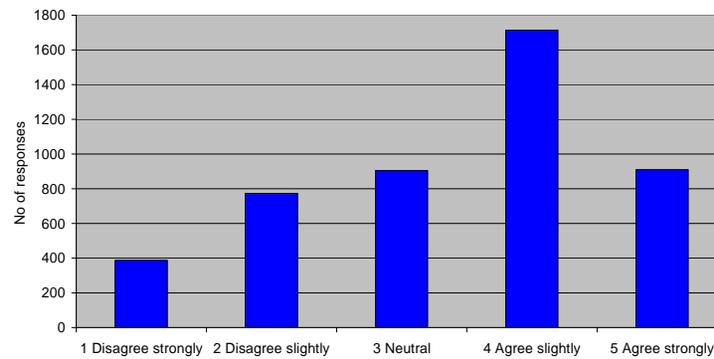
In-Direct care form
In my area it is difficult to speak up if I perceive a problem with patient/client care

Q25: When my workload becomes excessive, my performance is impaired

Total All Forms
When my workload becomes excessive, my performance is impaired

Direct care form
When my workload becomes excessive, my performance is impaired

In-Direct care form
When my workload becomes excessive, my performance is impaired

Q26: I am provided with adequate, timely information about events that might affect my work

Total All Forms
I am provided with adequate, timely information about events that might affect my work

Direct care form
I am provided with adequate, timely information about events in my health service that might affect my work

In-Direct care form
I am provided with adequate, timely information about events in my health service that might affect my work

Q27: I have seen others make error(s) that had the potential to harm patients/clients

Total All Forms
I have seen others make clinical error(s) that had the potential to harm patients/clients

Direct care form
I have seen others make clinical error(s) that had the potential to harm patients/clients

In-Direct care form
I have seen others make clinical error(s) that had the potential to harm patients/clients

Q28: I know the proper channels to direct questions regarding patient/client safety

Total All Forms
I know the proper channels to direct questions regarding patient/client safety

Direct care form
I know the proper channels to direct questions regarding patient/client safety in my clinical area

In-Direct care form
I know the proper channels to direct questions regarding patient/client safety in my health service
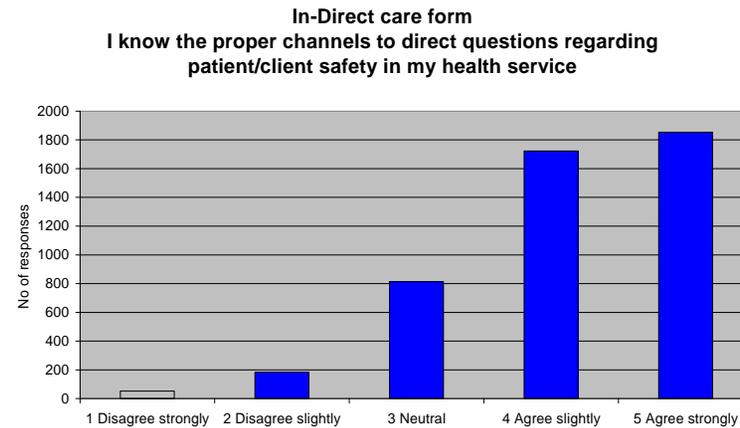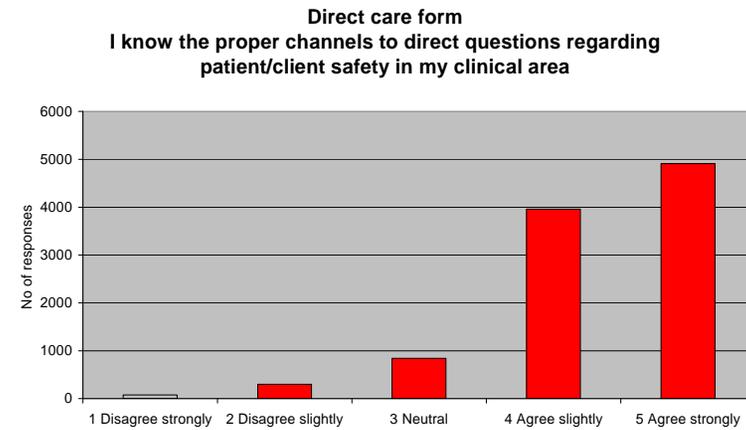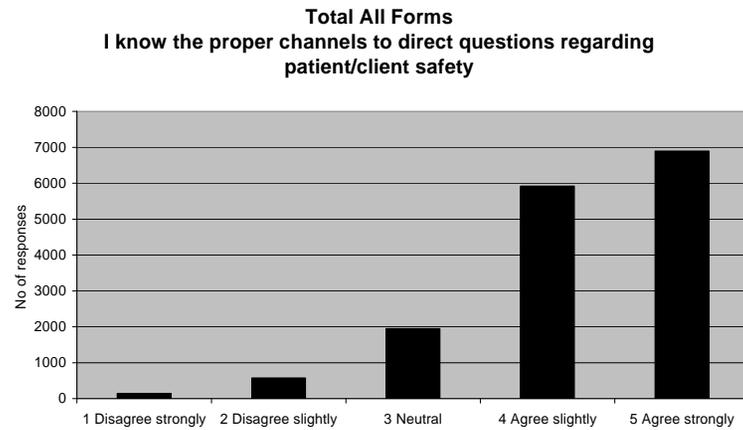
Q29: I am proud to work here

Total All Forms
I am proud to work here
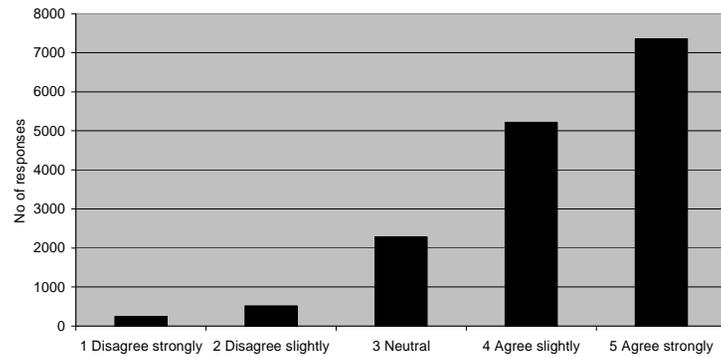
Direct care form
I am proud to work here
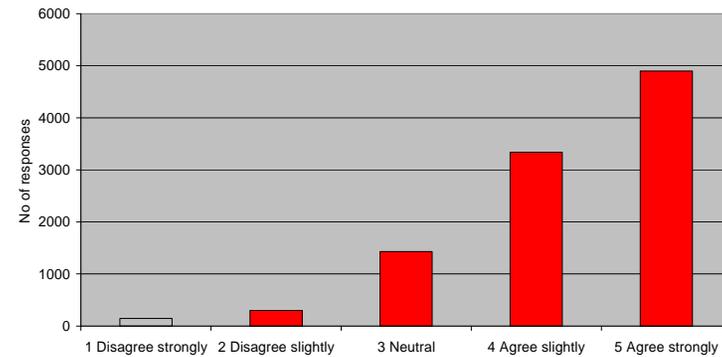
In-Direct care form
I am proud to work here

Q30: Disagreements in my area are appropriately resolved

Total All Forms
Disagreements in my clinical area are appropriately resolved

Direct care form
Disagreements in my clinical area are appropriately resolved (ie not who is right but what is best for the patient/client)

In-Direct care form
Disagreements in my health service are appropriately resolved (ie not who is right but what is best for the patient/client)

Q 31: I am less effective at work when fatigued

Total All Forms
I am less effective at work when fatigued

Direct care form
I am less effective at work when fatigued

In-Direct care form
I am less effective at work when fatigued

178

Q32: Staff are more likely to make errors in tense or hostile situations

Total All Forms
Staff are more likely to make errors in tense and hostile situations

Direct care form
I am more likely to make errors in tense and hostile situations

In-Direct care form
I am more likely to make errors in tense and hostile situations

Q33: Stress from personal problems adversely affects my performance

Total All Forms
Stress from personal problems adversely affects my performance

Direct care form
Stress from personal problems adversely affects my performance

In-Direct care form
Stress from personal problems adversely affects my performance

Q34: I have the support I need from other personnel

Total All Forms
I have the support I need from other personnel

Direct care form
I have the support I need from other personnel to care for patients/clients

In-Direct care form
I have the support I need from other personnel to care for patients/clients /do my job

Q35: It is easy for personnel to ask questions when there is something that they do not understand

Total All Forms
It is easy for personnel to ask questions when there is something that they do not understand

Direct care form
It is easy for personnel in my clinical area to ask questions when there is something that they do not understand

In-Direct care form
It is easy for personnel in my health service to ask questions when there is something that they do not understand

Q36: Disruptions can be detrimental

Total All Forms
Disruptions can be detrimental

Direct care form
Disruptions in the continuity of care can be detrimental to patient/client safety

In-Direct care form
Disruptions in the continuity of care can be detrimental to patient/client safety

Q37: During emergencies, I can predict what other personnel are going to do next

Total All Forms
During emergencies I can predict what other staff are going to do next

Direct care form
During emergencies I can predict what other personnel are going to do next

In-Direct care form
During emergencies I can predict what other staff are going to do next

Q38: Staff work together as a well coordinated team

Total All Forms
Staff work together as a well coordinated team

Direct care form
The clinicians in my area work together as a well coordinated team

In-Direct care form
The staff in my area work together as a well coordinated team

Q39: I am frequently unable to express disagreement with senior staff

Total All Forms
I am frequently unable to express disagreement with senior staff

Direct care form
I am frequently unable to express disagreement with senior clinicians in my area

In-Direct care form
I am frequently unable to express disagreement with senior staff in my area

Q40: Very high levels of workload stimulate and improve staff performance

Total All Forms
Very high levels of workload stimulate and improve staff performance

Direct care form
Very high levels of workload stimulate and improve staff performance

In-Direct care form
Very high levels of workload stimulate and improve staff performance

Q41:Truly professional staff can leave personal problems behind when working

Total All Forms
Truly professional personnel can leave personal problems behind when working

Direct care form
Truly professional personnel can leave personal problems behind when working

In-Direct care form
Truly professional personnel can leave personal problems behind when working
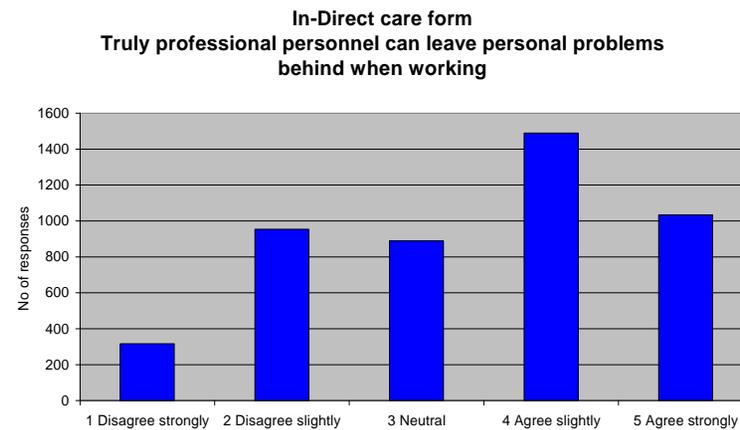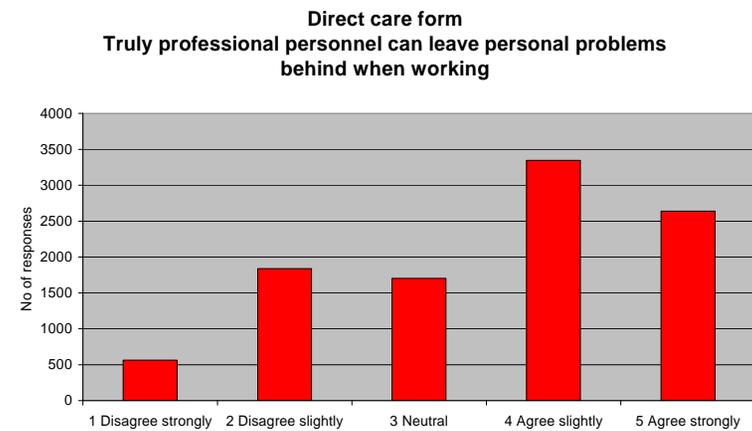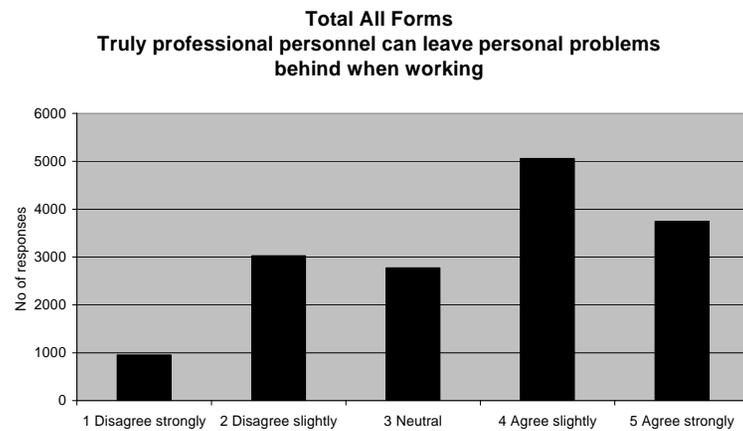
Q42: Morale is high

Total All Forms
Morale is high
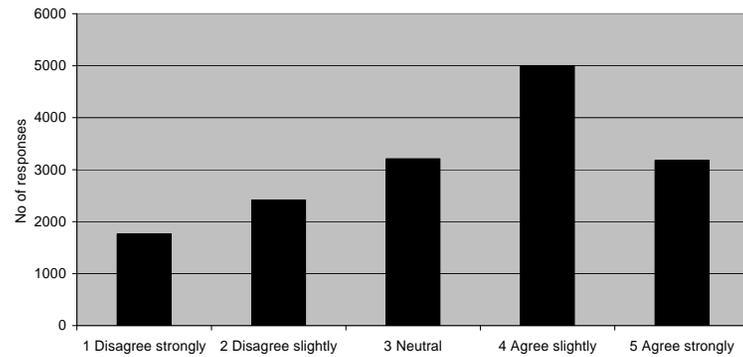
Direct care form
Morale in my clinical area is high
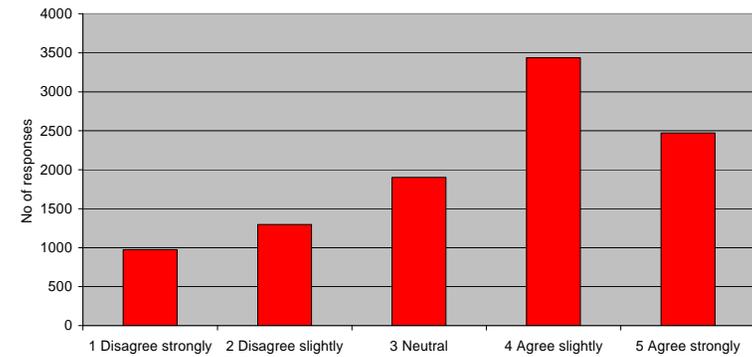
In-Direct care form
Morale in my area is high
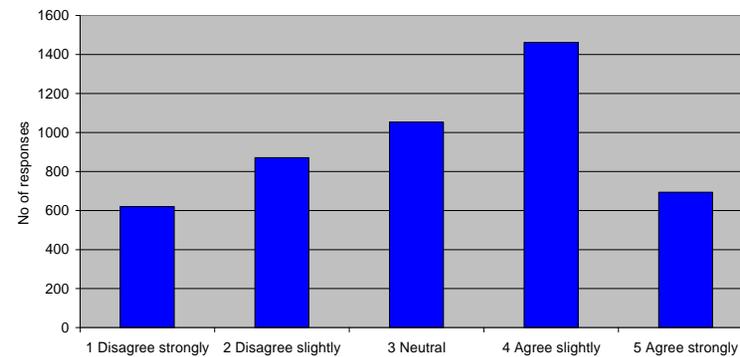
Q43: Trainees are adequately supervised

Total All Forms
Trainees are adequately supervised
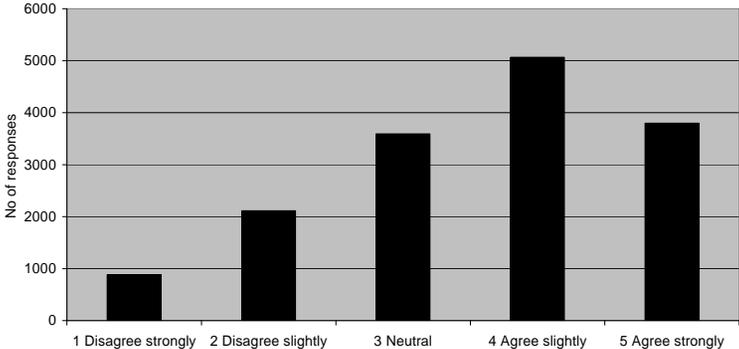
Direct care form
Trainees in my discipline are adequately supervised
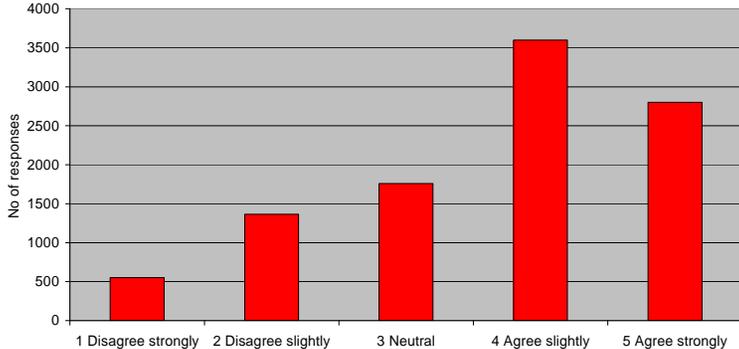
In-Direct care form
Trainees in my area are adequately supervised

Q44: I know the first and last names of all the personnel I worked with during my last shift

Total All Forms
I know the first and last names of all the personnel I work with

Direct care form
I know the first and last names of all the personnel I worked with during my last shift
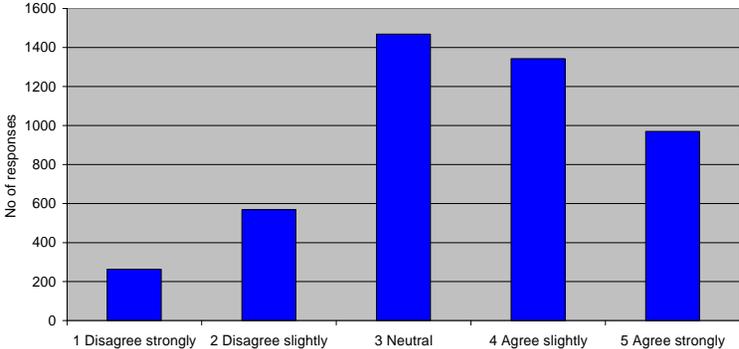
In-Direct care form
I know the first and last names of all the staff I worked with during my last shift
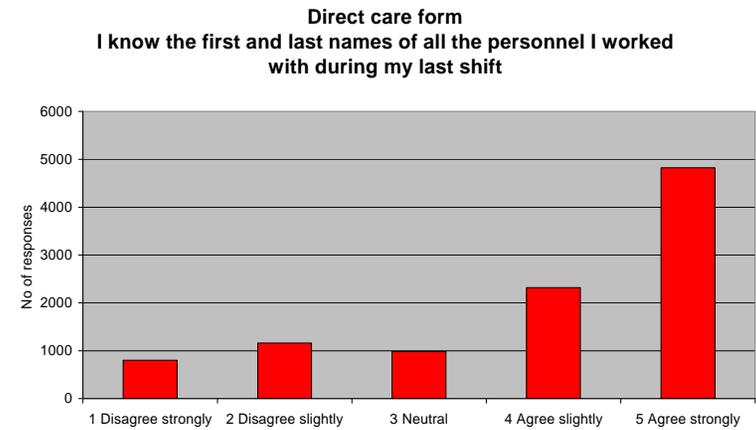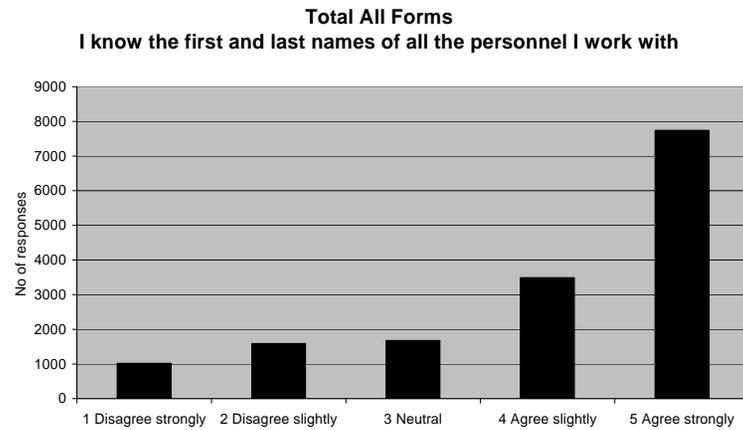
Q45: I have made errors that had the potential to harm patients/clients
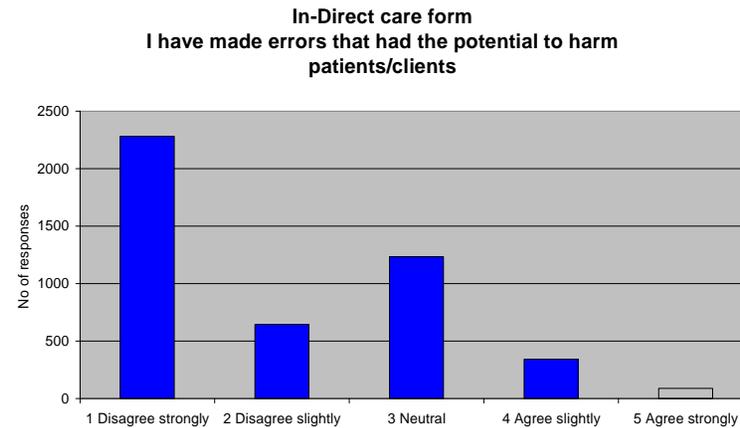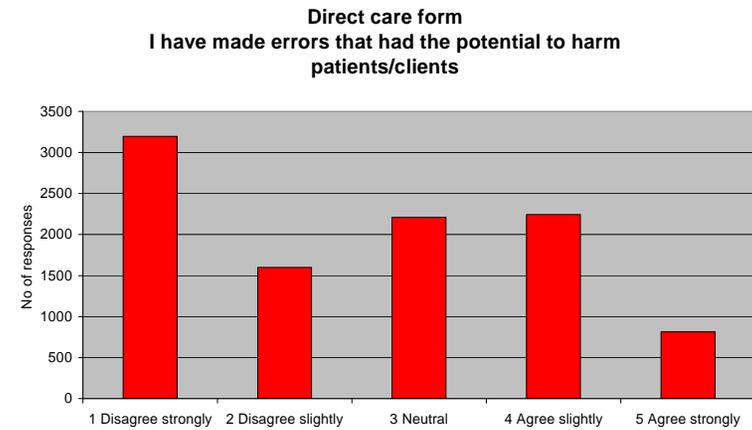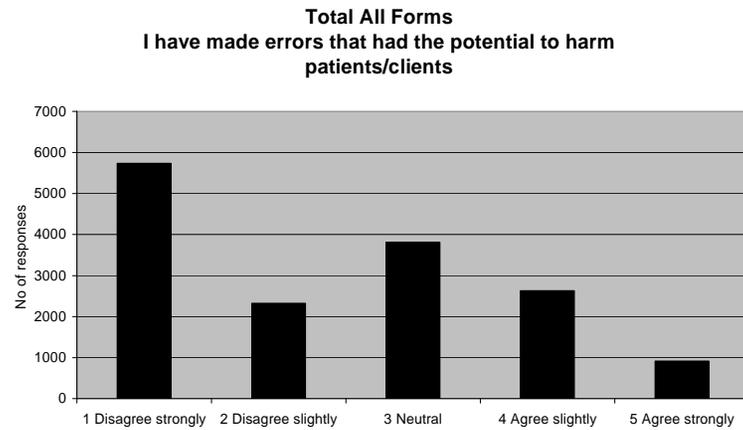
Q46: Senior staff are doing a good job

Total All Forms
Senior staff are doing a good job
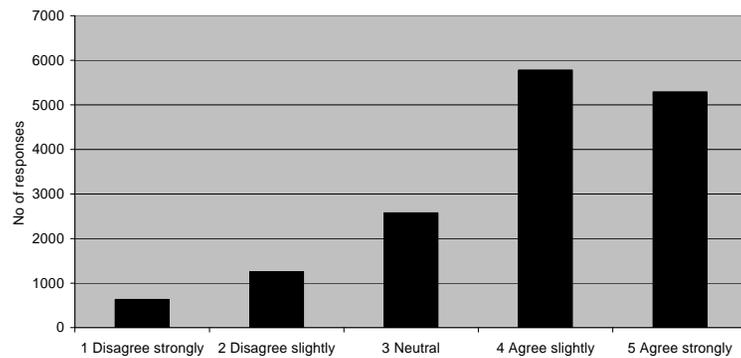
Direct care form
Senior clinicians in my clinical area are doing a good job
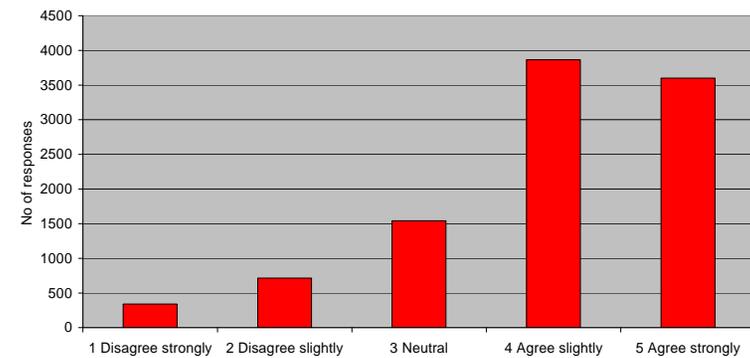
In-Direct care form
Senior staff in my area are doing a good job
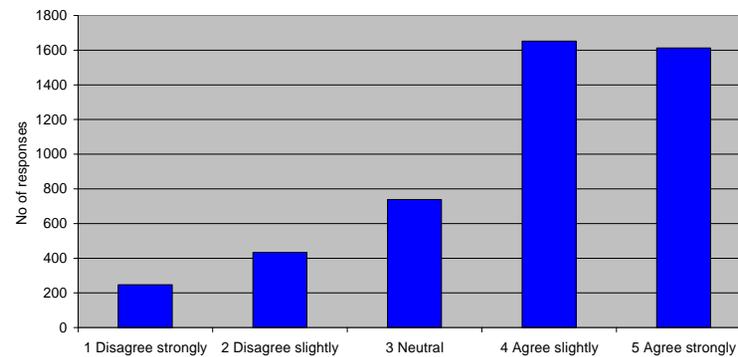
Q47: All personnel take responsibility for patient/clients safety

Total All Forms
All staff take responsibility for patient/client safety

Direct care form
All personnel in my clinical area take responsibility for patient/client safety

In-Direct care form
All staff in my area take responsibility for patient/client safety

Q48: If necessary, I know how to report errors that happen

195

Q49: Patient/client safety is constantly reinforced as the priority

Total All Forms
Patient/client safety is constantly reinforced as the priority

Direct care form
Patient/client safety is constantly reinforced as the priority in this clinical area

In-Direct care form
Patient/client safety is constantly reinforced as the priority in my health service

Q50: Interactions are collegial, rather that hierarchical

Total All Forms
Interactions are collegial rather than hierarchical

Direct care form
Interactions in this clinical area are collegial rather than hierarchical

In-Direct care form
Interactions in my area are collegial rather than hierarchical

Q51: Important issues are well communicated
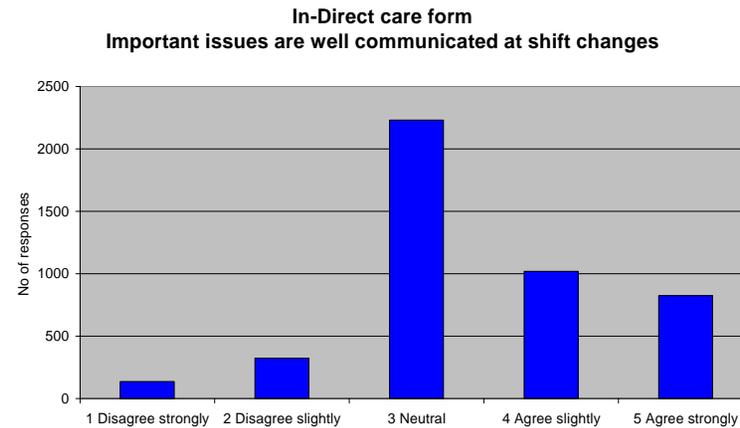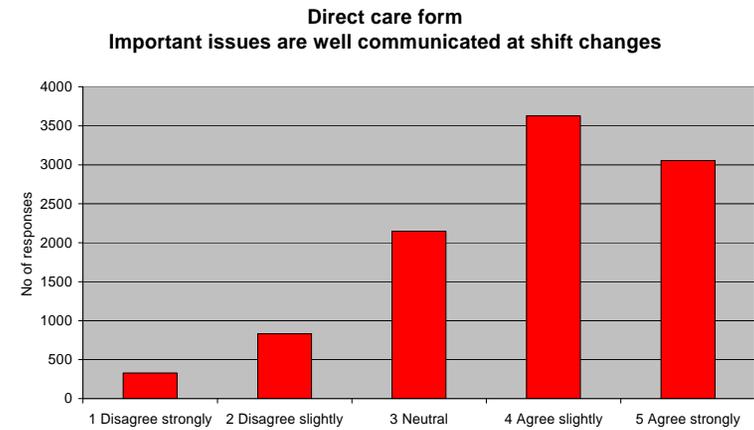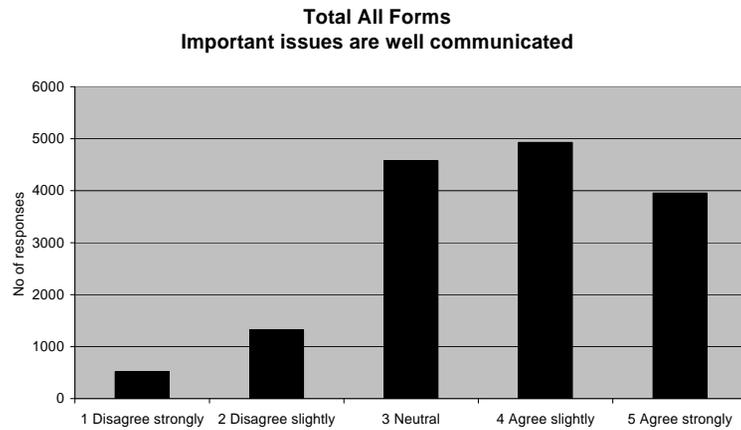
Q52: There are widespread adherence to clinical guidelines and evidence-based criteria regarding patient safety

Total All Forms
There is widespread adherence to clinical guidelines and evidence based criteria regarding patient safety

Direct care form
There is widespread adherence to clinical guidelines and evidence based criteria regarding patient safety in this clinical area

In-Direct care form
There is widespread adherence to clinical guidelines and evidence based criteria regarding patient safety in my area

Q53: Personnel are not punished for errors reported through incident reports

Total All Forms
Personnel are not punished for errors reported through incident reports

Direct care form
Personnel are not punished for errors reported through incident reports

In-Direct care form
Personnel are not punished for errors reported through incident reports

Q54: Error reporting is supported

Total All Forms
Error reporting is supported
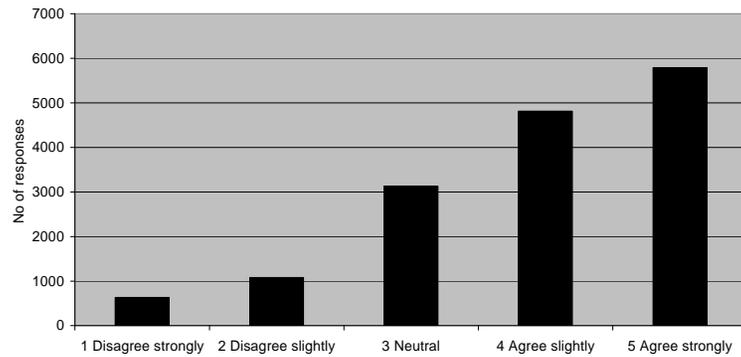
Direct care form
Error reporting is supported in my clinical area
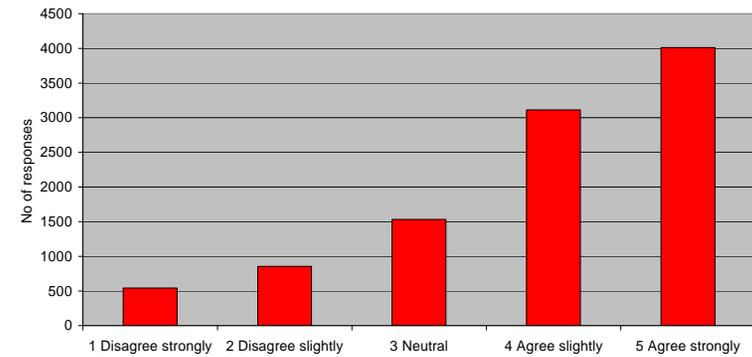
In-Direct care form
Error reporting is supported in my area

Q55: Information obtained through incident reports is used to make patient care safer

Total All Forms
Information obtained through incident reports is used to make patient care safer

Direct care form
Information obtained through incident reports is used to make patient care safer in my clinical area

In-Direct care form
Information obtained through incident reports is used to make patient care safer in my area

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Q56: During emergency situations performance is not affected by working with inexperienced or less capable personnel

Total All Forms
During emergency situations performance is not affected by working with inexperienced or less capable personnel

Direct care form
During emergency situations my performance is not affected by working with inexperienced or less capable personnel

In-Direct care form
During emergency situations my performance is not affected by working with inexperienced or less capable personnel

Q57: Personnel frequently disregard rules and guidelines that are established for this clinical area

Total All Forms
Personnel frequently disreguard rules and guidelines that are established
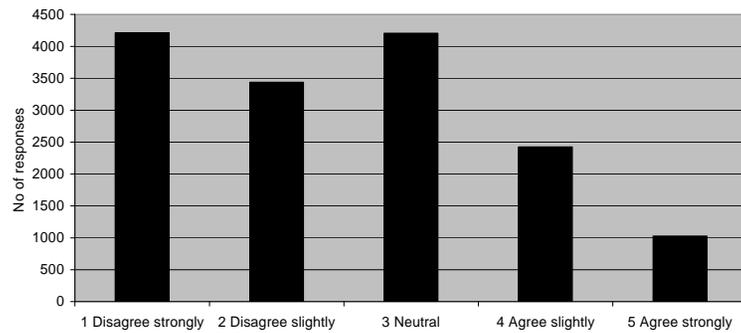
Direct care form
Personnel frequently disreguard rules and guidelines that are established for this clinical area
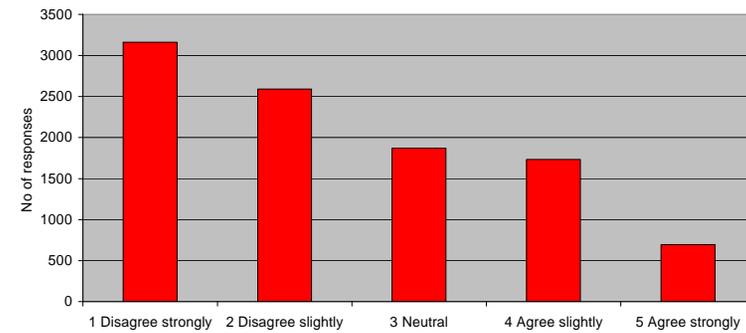
In-Direct care form
Personnel frequently disreguard rules and guidelines that are established for this clinical area
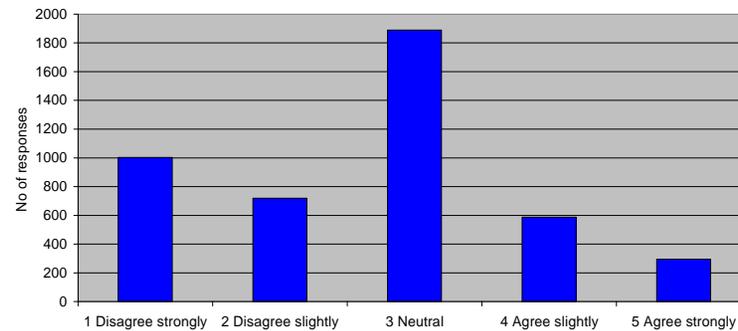
Q58: I have taken remedial action to solve an error
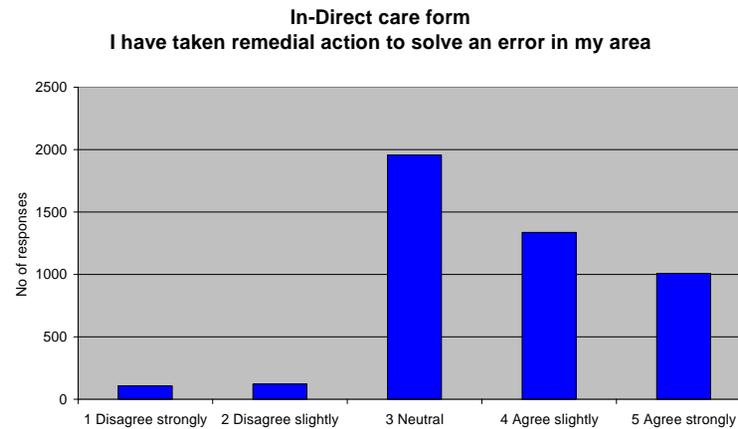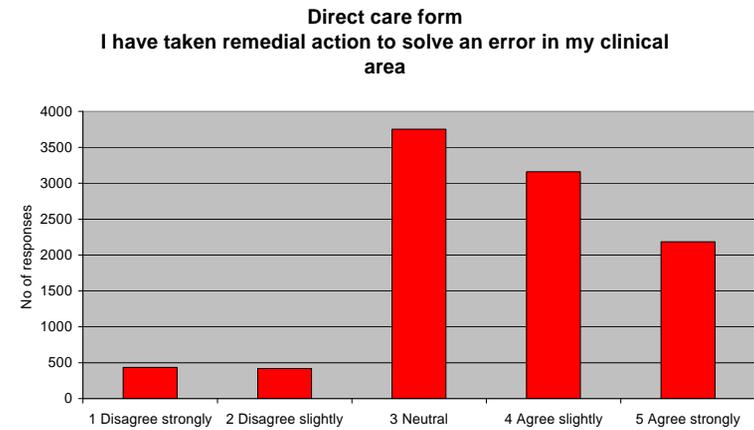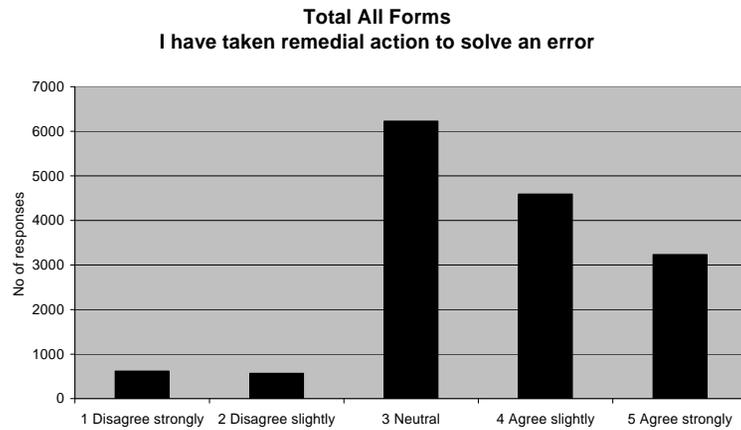
Q59: Attempts to meet the cultural needs of Aboriginal and Torres Straight Islander people have been effective

Total All Forms
Attempts to meet the cultural needs of Aboriginal and Torres Straight Islander people have been effective

Direct care form
My organisation's attempts to meet the cultural needs of Aboriginal and Torres Straight Islander people have been effective


In-Direct care form
My organisation's attempts to meet the cultural needs of Aboriginal and Torres Straight Islander people have been effective

Q60: Staff practise effective hand hygiene

Total All Forms
Staff practise effective hand hygiene

Direct care form
**Staff in my health service practise effective hand hygiene**

In-Direct care form
**Staff in my health service practise effective hand hygiene**

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Q61: All necessary information is transferred to the appropriate person to ensure safe care

Total All Forms
All necessary information is transferred to the appropriate person to ensure safe care

Direct care form
All necessary information is transferred to the appropriate person to ensure safe care


In-Direct care form
All necessary information is transferred to the appropriate person to ensure safe care

* Note: the Department of Health responses relate to perceptions in the overall health system

Q62: The health system handles medications safely

Total All Forms
**The health service manages medications safely**

Direct care form
**My health service manages medications safely**

In-Direct care form
**My health service manages medications safely**

Q63: In cases where a patient/client has been harmed, information is disclosed openly to patients/clients and relatives


Total All Forms
In cases where a patient/client has been harmed, information is disclosed openly to patients/clients and relatives

Direct care form
In cases where a patient/client has been harmed, information is disclosed openly to patients/clients and relatives

In-Direct care form
In cases where a patient/client has been harmed, information is disclosed openly to patients/clients and relatives
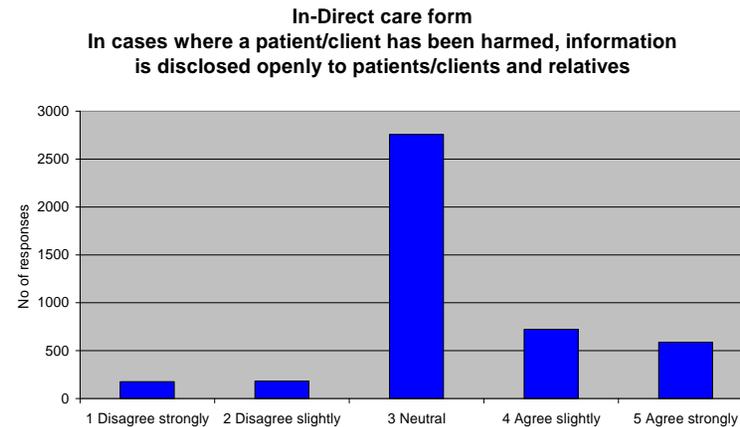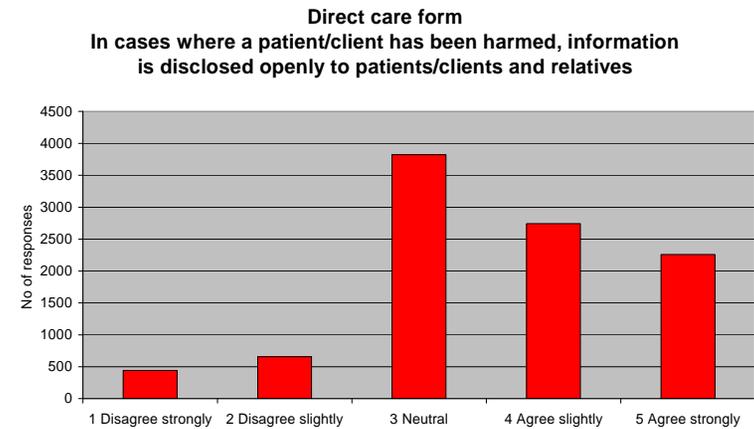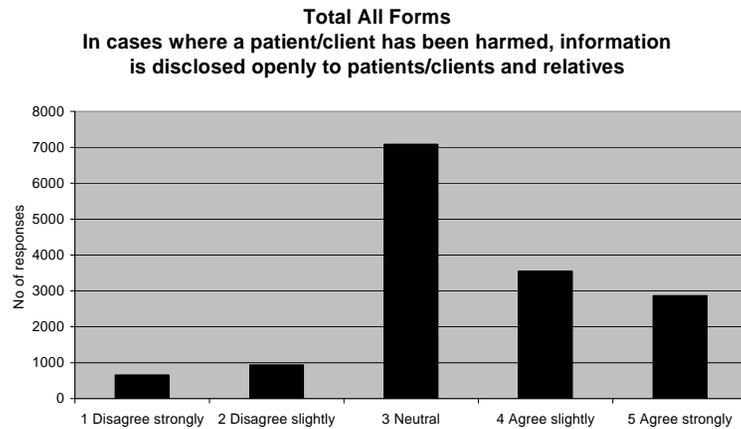
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