Second Annual Report on
the NSW Clinical Services
Redesign Program (CSRP)

Centre for Health Service Development
UNIVERSITY OF WOLLONGONG
and
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Key messages

- The Clinical Services Redesign Program (CSRP) is part of a broader reform strategy by the Health Department to improve performance. That strategy includes significant additional resources and a greater focus on performance management. The elements of the overall strategy are inseparable. This is particularly the case for the program-level component of CSRP and performance management.

- All three elements have contributed to improving the performance of the NSW health system in recent years. The relative impact of each cannot be determined with any level of precision, as evidenced by the key success factors for organisational change. The same redesign activities, with a similar increase in resources, within the same performance management system, will produce different results depending on factors such as leadership, clinician engagement and the ‘receptiveness’ of the local environment. This multi-pronged approach to improving performance should be maintained. There is a need for greater understanding of ‘what works best in what circumstances’.

- Although many of the characteristics of the CSRP are familiar to those working in the health system, the Program has its own unique flavour and is building in sophistication as it unfolds. It has succeeded in taking on a mainstream role, largely as a result of being driven from the Centre, rather than the more peripheral role typically occupied by improvement initiatives in the past.

- Improvements in emergency department performance since mid-2004 are impressive, particularly in light of the pattern of declining performance that had been evident previously and the unprecedented growth in demand. Performance continued to improve during the first half of 2006/07, followed by a slight decline in the second half of the year. The data indicate that some hospitals and area health services have done better than others. More work is required to more fully understand these differences.

- Systematic changes to the system for managing elective surgery have resulted in significant performance improvements which have now been sustained for over 12 months.

- Equity of access to emergency department services and elective surgery has improved markedly.

- Performance management has been central to the CSRP. The increased focus on performance is welcome by senior managers. There is some evidence of the dysfunctional aspects that can result in any system of performance management, indicating a need for ongoing efforts to improve the sophistication and credibility of the performance management system.

- Some issues have arisen about the role of the Health Department vis-à-vis area health services and the need for a more unified approach by the Health Department. Strategies to address these issues would be timely.

- The draft sustainability strategy developed by the Health Department shows much promise and we would encourage ongoing refinement and implementation of this strategy.

- There are some aspects of cultural change evident in the way senior managers tackle issues such as emergency department and elective surgery performance, with improvements to their ‘understanding the business’ and approach to problem solving. However, it is unrealistic to think that CSRP, on its own, will deliver the desired cultural change. We see a key role for the Health Department in facilitating this cultural change.

- The imperative to maintain and improve performance has resulted in enormous pressure being placed on those delivering services. Some of this pressure is legitimate and ‘part and parcel’ of what staff would expect but much of it is seen as intolerable and unsustainable.
1 Executive summary

The New South Wales Department of Health (henceforth referred to as the Health Department) is implementing an ambitious agenda to transform the performance, safety and quality of the NSW health system, with three main components:

- A significant increase in resources with the commissioning of an additional 1,811 beds between 2004 and 2006.
- Top down performance management, with a particular focus in the first phase on improved performance in emergency departments and in the management of elective surgery waiting lists.
- A formal Clinical Services Redesign Program.

This is the second of three annual reports on one of those components – the Clinical Services Redesign Program (CSRP). However, as this report demonstrates, the three components of the reform strategy are intertwined and the CSRP cannot be considered in isolation. Accordingly, this report not only includes findings about the CSRP but, inevitably, the broader reform strategy of which CSRP is a part.

The business case for CSRP stated that ‘what is needed is a new vision for healthcare delivery. To start with a blank sheet of paper and design processes with frontline staff …‘ (p. 17). The aim was that the CSRP would achieve large-scale, transformational, change, rather than merely refining or fine-tuning existing processes and procedures within the current system, largely leaving that system unchanged.

As the CSRP has evolved it has become clear that there are two aspects to the program:

- A series of time-limited projects ranging from the relatively small-scale in well-defined clinical areas to broader initiatives across whole area health services.
- Program-level activities, (for example, policy development, supporting patient and carer involvement, and the dissemination and sharing of ideas and new knowledge), undertaken by the Health Department, primarily by the Health Services Performance Improvement Branch.

There are many more activities, some of which are linked with the reform agenda and some that would have happened irrespective of the reform agenda. The effects of the different components are potentially additive. For example, the additional beds may have created sufficient capacity in the system to facilitate the successful implementation of a particular project, whether that project was formally part of the CRSP or not. Similarly, it may sometimes be difficult to disentangle which components of the reform strategy have contributed directly to achieving improvements against the key performance indicators, and which have played a broader enabling (or stabilising) role in the system as a whole. Certainly it is difficult to prove that a single change in a process or additional resource has led to a specific outcome.

1.1 Summative findings in relation to the key performance indicators

The evaluation questions that are relevant to the KPI analysis component of the evaluation are:

- Has access to emergency departments improved?
- Has access to surgery improved?
- What external factors impacted on performance?
- Are the CSRP results robust and sustainable?
Table 1 provides a summary of the progress in achieving the CSRP key performance indicators (KPIs).

**Table 1  Summary of progress in achieving the Program’s Key Performance Indicators**

<table>
<thead>
<tr>
<th>KPI Area</th>
<th>Indicator</th>
<th>Target</th>
<th>Performance at end June 2007</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emergency Department</td>
<td>Emergency Admission Performance (EAP)</td>
<td>All hospitals &gt;80% by June ’08 (AHS PA’s &gt;80% by June ’06)</td>
<td>After a five year period of decline (1999-2004) EAP improved markedly from mid-2004 until late 2006 and now stands at 78% statewide (on trend line). It was 77% in June 2006.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Off stretcher time</td>
<td></td>
<td>All hospitals &lt;30 mins for 95% of patients (AHS PA’s &lt;30 mins for 90% of patients)</td>
<td>There has been less progress in achieving this target than for the other KPIs. A steady improvement from mid-2004 until mid-2006 plateaued at about 80% and then declined. In June 2007 performance stood at 74% statewide (on trend line), compared to 80% in June 2006.</td>
</tr>
<tr>
<td>Triage Time</td>
<td>T1: 100% &lt; 2 min</td>
<td></td>
<td>Not reported. Steady improvement in performance from mid-2004. Achieved target in Feb 2006 and has remained above target ever since, reaching a peak of 89% in early 2007.</td>
</tr>
<tr>
<td></td>
<td>T2: 80% &lt; 10 min</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>T3: 75% &lt; 30 min</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>T4: 70% &lt; 1 hr</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>T5: 70% &lt; 2 hours</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Attendances at ED with</td>
<td>5% pa reduction (from predicted trend line) in number of</td>
<td></td>
<td>This indicator cannot be operationalised based on the data collected in the Emergency Department Information System (EDIS), and hence is not reported.</td>
</tr>
<tr>
<td>chronic disease</td>
<td>ED attendances with chronic disease over 3 years</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Elective Surgery</td>
<td>Long waits over 12 months</td>
<td>None by June ’08 (AHS PA’s none by June ’06)</td>
<td>Virtually eliminated by the end of June 2006.</td>
</tr>
<tr>
<td>Performance</td>
<td>Urgent cases more than 30 days</td>
<td>None by June ’08 (AHS PA’s none by June ’06)</td>
<td>Continued to decrease over the last 12 month by around 80% and is now around 117 cases statewide by end of June 2007, down from 578 one year ago.</td>
</tr>
<tr>
<td>Length of Stay</td>
<td>Relative Stay Index</td>
<td>5% reduction in average length of stay by year 4. 0% reduction by July 2006. 1% reduction by July 2007</td>
<td>The RSI at March 2007 was 0.94. The most significant decrease in RSI occurred between April 2004 and April 2005 and measured 4.5%.</td>
</tr>
</tbody>
</table>

This indicates that the program has made significant progress in achieving the Key Performance Indicators (KPIs), with some areas showing marked improvements and others maintaining steady progress. The report highlights the need for continued monitoring and improvement in certain areas, especially those relating to patient access and emergency care.
Elective surgery is a real success story. There has been a strong focus on making existing processes more efficient and combining that with improved measurement, greater accountability for performance, targeting of resources and use of policy to support practice i.e. redesigning the system for managing elective surgery. The health system has, in the past, demonstrated the ability to reduce the number of people waiting longer than 12 months for their surgery but not the ability to keep the number down. This year the number stayed down, with the number of ‘long waits’ being at or close to zero for more than 12 months. Improved performance for elective surgery should be more sustainable than improvements in other clinical areas.

For both emergency department (ED) and elective surgery KPIs, there has been a general trend of reduced variation in performance, between area health services (AHSs), between metro/non metro AHSs, between individual hospitals, between hospital peer groups and between the evaluation cohorts. From a population/system perspective this is a major achievement, indicating greater equity in the provision of these services.

EAP improved significantly over a period of approximately 18 months, from mid-2004 until late 2006, after a five year period of continued decline, in combination with large improvements in performance for triage categories 3, 4 and 5. Changes in the length of ED stay for admitted patients indicate systemic improvements. In two performance areas that were not the focus of either the ABIP or the CSRP (‘did not waits’ and patients discharged from ED) performance has not improved, indicating the importance of aligning redesign activities with performance management. In the first half of 2007 there has been some decline in ED performance based on the CSRP KPIs. This has occurred in the context of unprecedented growth in demand for ED services, equating to an increase of around 24% in ED attendances in the last three years. This gives cause for some concern about the sustainability of improvements in ED performance. Much will depend on what happens to these KPIs as the health system emerges from winter 2007.

Evidence from the literature indicates that high bed occupancy, rather than the number of beds per se, is the major driver in creating access block problems (low EAP). High utilisation (occupancy) interacts with variations in demand to adversely impact on patient flow. Strategies to reduce variation by undertaking redesign activities should continue.

**1.2 Formative findings about the CSRP**

From the beginning, a vexing issue for the evaluation has been how to identify what could variously be attributed to the CSRP, to the increase in resources and to changes in top down performance management. Our conclusions at this stage are:

- The change in the relationship between the Health Department and Area Health Services (AHSs) resulting from the abolition of area boards was a necessary, but not sufficient, condition for establishing a more robust performance management framework.
- Performance management provided a mechanism for debate, analysis and decision-making about improving performance.
- Additional resources and clinical redesign, at both the project-level and program-level, provided some of the tools to support this debate, analysis and decision-making about performance.

**Current methods and approaches**

The solutions implemented as part of CSRP are generally a mix of quite standard interventions with the emphasis on smaller-scale, incremental change (see Section 5.1.6), findings which are consistent with those from the evaluation of the Maggie Program (see Appendix 2).

While building on a past history of quality improvement/Total Quality Management (TQM) activities, CSRP has its own distinctive flavour (see Section 5.1.4). Key features include the scale
of what is being done, the commitment of time and resources, the use of external partners, the focus on patients, the drive from the centre and the fact that CSRP is not something ‘done’ by ‘quality people’ but embraced more widely. As the program has unfolded a greater level of sophistication is evident:

- The simple distinction between clinical practice and the systems that support clinical practice (supposedly the preserve of CSRP) has become less evident, particularly as the program develops more of a quality and safety focus.
- The aged care projects in year 2 include a much higher percentage of solutions to integrate services, improve continuity of care and improve cooperation with external services e.g. residential aged care facilities, with a greater complexity of service providers.
- At the beginning of the program measurement was focused heavily on a small number of measures but as time goes on measurement is becoming more sophisticated.
- The work on patient experience.

We expressed concern in our first report that there is a ‘disconnect’ between the initial up-front component of a project (diagnosis and solution design) and the much more difficult, but much less visible, work of implementation. We have not changed our view on this issue (see Section 5.6). In 2006/2007 only 34% of monthly project-level KPIs selected for inclusion in the Department’s performance management system were met, indicating plenty of scope for improvement at the project-level.

**Working to make the context for the CSRP more receptive**

In Section 5.10 of this report we draw attention to a number of ways in which the receptiveness of the context for the CSRP could be improved and energies and aspirations raised. An important issue is whether the current culture is providing a receptive context for clinical redesign and improvements to performance or whether the ‘right’ culture is likely to evolve from clinical redesign and improved performance. We see an important emerging role for the Centre as being one of helping to change the culture of the NSW health care system rather than focusing solely on managing top-down programs. We believe that additional consideration needs to be given to broader issues such as instilling the appropriate behaviours in key people.

**A greater emphasis on leadership and management development**

There is a strong case for greater emphasis upon leadership and management development in the CSRP. This is already recognised by the Health Department and is proposed in the draft sustainability strategy (Brown 2007). It is all too easy to overlook management development or to rate it as less important than leadership development but we have seen that improvement projects frequently fail in implementation and this is as much a management issue as a leadership issue.

**A stronger focus on patients and a more even balance between performance, safety and quality**

There is general agreement that the increased focus on targets and performance is a good thing, with concerns not about performance management *per se* but the narrowness of the indicators that are being used to judge performance and how these are being applied. There is some concern (at all levels) that there has been too much of an emphasis on certain areas, particularly EDs, and that this is resulting in some distortion (tunnel vision) and a need to broaden the emphasis. In part, this is already occurring with the move to complex, area-wide, aged care projects that involve working with a broad set of stakeholders.

Although progress has been made since our first year evaluation, ‘patient experience’ still remains largely on the periphery of people’s minds and projects (Section 4.1.2). This is despite the evidence that this is the key factor that turns a system from ‘good’ to ‘great’, and leads to qualitative, step change improvements in a service (Bate & Robert, 2007). Many people we interviewed indicated that making patient experience more central would have a positive impact on
clinician ‘buy in’. Likewise, there is support for broadening the KPIs to achieve a more even balance between performance, safety and quality.

Sustainability
The biggest issue to emerge from our interviews in year 2 is the whole question of sustainability (see Section 6), which was one of the five key risks identified for the CSRP in the original business case.

It is clear from our year 2 interviews that many senior and middle managers are working at a pace and in a way that is simply not sustainable. Undoubtedly, redesign and performance improvement is hard work. Many people we interviewed spontaneously commented that they felt close to exhaustion and at least some people in the Health Department recognised this, as reflected in this comment made during one of our year 2 interviews:

You can see people almost crumbling under it. And I have to say, I do worry. I don’t know where this is going to end, because enormous pressure is being put on people, and with very little recognition of what that’s doing to them. (D)

A circuit breaker is required. On the one hand, improving the performance of the NSW health system is demonstrably hard work and many people involved are paying the price. On the other, there is no reason to stop and every reason to continue. Demand on the NSW health system will continue to increase and the system will not improve further on its own. There is no choice but to keep going. The challenge now is how to do so in ways that are sustainable both for the NSW health system and those who work in it.

The circuit breaker proposed by the Health Department is its strategy (Brown 2007) to create a sustainable framework for ‘redesign principles’ so that they become widespread across the NSW health system. The strategy has nine streams of aligned activity and is designed to pass ongoing responsibility from the Health Department to each AHS from May 2008 onwards. A key question for year 3 of the evaluation will be the readiness of AHS’s to take on implementing these recommendations across the 9 streams and whether this provides the circuit breaker that the CSRP now requires.

Comparison with the CSRP Business Case

The short-term aims of the CSRP as set out in the business case for the Program are largely being met. Considerable progress has been made in achieving the KPIs, particularly for ED and elective surgery. The various building blocks and strategies (e.g. Clinical Redesign Units in every area health service, major input from external partners, phased ‘roll out’) have been put in place much as envisaged in the business case. The variations that have taken place as the Program has evolved have remained faithful to the intent of the Program. Implementation has turned out to be more of an issue than was foreseen at the start but this is not unusual.

The large-scale transformational change anticipated in the business case has not eventuated. It may be more helpful at this stage of the development of CSRP to re-frame this issue with questions such as ‘have we improved?’ and ‘how can we improve further?’ rather than debate the question of transformational versus incremental change. This approach might facilitate integration of activities identified with CSRP with activities undertaken under other banners such as clinical governance.

The business case referred to embedding management development and culture change in the CSRP from the beginning. Management development is becoming an increasing focus for the Program and is recognised as such in the sustainability plan. In the first two years of the CSRP there has been an improvement in managers’ ‘understanding of the business’, with a stronger orientation towards efficiency, achieving results and using data to support decisions. These changes in observed patterns of behaviour may influence deeper levels of culture if they become embedded and part of daily routine but at this stage we are not able to judge whether this is occurring. The role of the Centre in facilitating culture change is critical.
2 Introduction, methods and background

2.1 Introduction

The CSRP has its origins in the ‘Maggie Project’ that has been underway in the Hunter region since 2002. This was followed by the Access Block Improvement Program (ABIP), undertaken in 10 hospitals in 2004-2005 with the goal of reducing access block out of emergency departments.

On the basis of the experience with Maggie and ABIP, the Health Department submitted a business case to the NSW Treasury in 2004-2005 and set out the case for the funding of what is now the CSRP. That business case is summarised in Section 2.2.1. Funding for the CSRP was provided for three years from July 2005, including the costs of engaging external consultants, backfilling staff participating in redesign projects and undertaking an independent evaluation.

The CSRP was funded to operate at three levels. A central CSRP unit would provide the overall direction, develop system capacity in areas such as organisational development and change management and be responsible for knowledge management. Clinical Redesign Units (CRUs) would be established in all area health services to lead redesign projects within each area. At the service level, the CSRP would fund a series of redesign projects around specific aspects of care. The first project began in August 2005. By June 2007, some 70 separate projects had been initiated.

The CSRP is one of three key strategies adopted by NSW to transform the performance, quality and safety of the NSW health system. The other two main components are:

- A significant increase in resources with the commissioning of an additional 1,811 beds between 2004 and 2006.
- Top down performance management, with a particular focus in the first phase on improved performance in emergency departments and in the management of elective surgery waiting lists

The three components are - and are seen by those involved to be - intertwined and the CSRP cannot be considered in isolation. As the CSRP has evolved it has become clear that there are two aspects to the program:

- A series of time-limited projects ranging from the relatively small-scale in well-defined clinical areas to broader initiatives across whole area health services.
- Program-level activities, (for example, policy development, supporting patient and carer involvement, and the dissemination and sharing of ideas and new knowledge), undertaken by the Health Department, primarily by the Health Services Performance Improvement Branch.

In addition, there is a whole range of activities that go by a variety of names - initiatives, improvement activities, projects, enhancements – that in some cases would have happened irrespective of the reform agenda and in some cases have links with the reform agenda. This is evident from our own work and the work of Value Enhancement Management’s (VEM) Management Participation Study:

It is important to note that there have been several CSRP-like activities that have produced results even though they have not been part of the programme. Some hospitals had a pre-existing services improvement unit; others were energised by a new building programme; still others implemented programmes outside of CSRP with varying degrees of success but without the same resources. Longer-tenure senior managers remember previous TQM initiatives (VEM 2007, p 56).
In sum, we view the reform ‘landscape’ as having five components rather than the original three we reported on last year.

2.1.1 Introduction to the evaluation

The external evaluation of the CSRP was commissioned by the Health Department and has been undertaken by the Centre for Health Service Development, University of Wollongong, and the international evaluation partners from University College London. The first annual report of the external evaluation was completed in November 2006 and focused on program delivery and program impact, specifically the impact on the KPIs for access to services. This second report takes a broader perspective, particular in the approach to seeking input from key stakeholders. For the purposes of the evaluation Year 1 refers to 2005/2006 and Year 2 refers to 2006/2007. The evaluation will be completed in September 2008.

The evaluation has two elements:

- Summative evaluation (evaluation for judgement) which seeks to ascertain whether and to what extent the CSRP was implemented as intended and the desired/anticipated results achieved.
- Formative evaluation (evaluation for learning) whereby the results of the evaluation provide a tool for learning and reflection which in turn inform the ongoing development and improvement of the CSRP itself.

The evaluation strategy is focused on two core issues. The first is to compare what was achieved by CSRP against the KPIs set out in the business case for the Program. The second is to explore any variation in these indicators by means of the key success factors (KSFs) identified in the literature on implementing, spreading and sustaining organisational change (‘making it happen, making it spread, making it last’) with regard to all three dimensions of performance, safety and quality.

Our first report on the external evaluation of the CSRP, completed in November 2006, focused on program delivery and program impact, specifically the impact on the key performance indicators (KPIs) for access to services. This included analysis both by area health service and by groups of like hospitals, together with analysis by age group with a focus on the elderly. It included time series analysis of the KPIs and reports on the influence of seasonality.

This second annual report builds on the first report and can be read as a ‘stand alone’ document summarising the first two years of the CSRP. Rather than reporting the results from each of the various activities undertaken as part of the evaluation separately we have combined the results in the appropriate section.

The evaluation is framed in terms of three organisational levels (state, area health service, hospital/project team) and the interactions and links between those levels. Analysis of KPI data examines differences between three cohorts of hospitals that began to implement clinical services redesign programs at different times, on the basis that this may give an indication of program sustainability:

- Cohort 1  John Hunter Hospital (which commenced its Maggie Project in 2002).
- Cohort 2  The ten hospitals in the ABIP that began in 2004.
- Cohort 3  All other hospitals (some of which began implementing CSRP projects in 2005).

The CSRP established targets as a way of measuring change in performance. Data analysis for the evaluation considered both the performance targets set out in the CSRP business case as well as other related performance measures (where available), which aims to give an improved overall
picture of the change in performance. This allowed investigation into other indicators that contribute to, but are not the specific focus of the performance targets.

Table 2 shows the access and efficiency issues and associated key measures. Some potential contributing factors have been listed in the table. These are patient level measures providing a measure of system level impacts.

**Table 2**  **Key performance indicators and targets**

<table>
<thead>
<tr>
<th>KPI Area</th>
<th>Indicator</th>
<th>Data Source</th>
<th>Target</th>
<th>Contributing factors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emergency Departments</td>
<td>Emergency Admission Performance</td>
<td>EDIS</td>
<td>All hospitals &gt;80% by June ’08 (AHS PA’s &gt;80% by June ’06)</td>
<td>ED attendances ED admissions % of admissions</td>
</tr>
<tr>
<td></td>
<td>Off stretcher time</td>
<td>Ambulance</td>
<td>All hospitals &lt;30 mins for 95% of patients (AHS PA’s &lt;30 mins for 90% of patients)</td>
<td>Emergency Admission Performance</td>
</tr>
<tr>
<td></td>
<td>Triage Time</td>
<td>EDIS</td>
<td>T1: 100% &lt; 2 mins T2: 80% &lt; 10 mins T3: 75% &lt; 30 min T4: 70% &lt; 1 hr T5: 70% &lt; 2 hours</td>
<td>ED attendances ED admissions % of admissions</td>
</tr>
<tr>
<td></td>
<td>Attendances at ED with chronic disease</td>
<td>EDIS</td>
<td>5% pa reduction (from predicted trend line) in number of ED attendances with chronic disease over 3 years</td>
<td></td>
</tr>
<tr>
<td>Surgery</td>
<td>Long waits over 12 months</td>
<td>Wait List</td>
<td>None by June ’08 (AHS PA’s none by June ’06)</td>
<td>Demand for surgery</td>
</tr>
<tr>
<td></td>
<td>Urgent cases more than 30 days</td>
<td>Wait List</td>
<td>None by June ’08 (AHS PA’s none by June ’06)</td>
<td></td>
</tr>
</tbody>
</table>

At the beginning of the evaluation we had concerns about the ability to operationalise the indicator for attendances at ED for those people with a chronic illness, based on the data collected in the Emergency Department Information System (EDIS). Our understanding is that the Health Department has been unable to find a suitable way of measuring this indicator (and neither have we) so we are unable to report on progress with meeting this indicator. The Health Department is currently investigating a range of methodologies and is likely to release a couple of aged and chronic disease indicators soon, but these will be limited to the inpatient setting and to respiratory and cardiac conditions.

The evaluation questions that are relevant to the KPI analysis component of the evaluation are:

- Has access to emergency departments improved?
- Has access to surgery improved?
- What external factors impacted on performance?
- Are the CSRP results robust and sustainable?

As we have come to understand more about the CSRP, the more it is apparent that there are often no clear boundaries between what constitutes CSRP and what constitutes other improvement-
related activities taking place in the NSW health system (including, for example, issues of restructuring). This has become particularly apparent in the interviews undertaken in the second year of CSRP, which included questions regarding performance management and the roles of the Health Department and area health services.

A final issue in relation to the framework for this evaluation is that the focus is on the CSRP (the Program) rather than on the evaluation of each CSRP project. We have used data from individual projects to inform the evaluation of the Program as a whole, but the scope of the external evaluation does not include an evaluation of each CSRP project.

The evaluation involved a mix of quantitative and qualitative methods, including time series analysis of the KPIs, interviews, attendance at various meetings, analysis of documents, a survey of projects and use of a sustainability tool developed in the UK. Interviews in year 1 of the evaluation focused on those involved in program implementation. In year 2 senior managers were interviewed. Further details of the methodology are included in Appendix 1.

2.2 Background

2.2.1 CSRP business case

The CSRP business case proposed a substantial investment in the redesign of clinical service delivery by undertaking ‘deep seated structural and cultural reform of traditional work practices in order to ensure patient care is managed efficiently to reduce delays and minimise risks, and to enable clinicians to be at the forefront of the reform process’ with a focus on specific patient journeys - the elderly patient requiring acute inpatient care as an emergency; the elderly patient with multiple problems who can be managed in their own home and community; the elective surgery procedure. The aim was that the CSRP would achieve large-scale, transformational, change, rather than merely refining or fine-tuning existing processes and procedures within the current system, largely leaving that system unchanged. Substantial changes in performance would require four essential conditions to be met - adequate management capacity, executive drive, clinician engagement and a focus on key performance indicators.

The business case refers to previous work in Australia such as the emergency department project facilitated by the National Institute of Clinical Studies (National Institute of Clinical Studies 2004), which involved 16 hospitals in NSW, and the Patient Flow Collaborative run by the Institute of Clinical Excellence, which involved 36 teams from NSW hospitals (Institute for Clinical Excellence 2004). This work resulted in considerable staff engagement and often delivered substantial improvements in performance for particular individual problem areas but the performance gains were short-lived and there was a need for larger systemic programs to achieve sustainable performance improvements.

The cost model for CSRP, based on a projected reduction in length of hospital stays, spans four financial years. The immediate outcomes for the program, as articulated in the business case, are a set of KPIs that are summarised in Table 2. A saving from a 5% reduction in length of stay was modelled as a theoretical financial benefit. In practice, the reduction would be used to create capacity to treat additional patients, reduce occupancy rates and partly meet the rising demand for health services.

2.2.2 Evaluation of the Access Block Improvement Program

The ABIP involved 10 hospitals and commenced implementation progressively from the end of June 2004 until the end of December 2004. The methodology used for the projects, particularly the use of external consultants, was similar to that later adopted for the CSRP. Together with the work on the Maggie Program the ABIP provided much of the template for the CSRP.
Reliable trends in performance data were not available for the evaluation of the ABIP but there was some evidence that participating hospitals improved their performance for EAP and treating urgent surgical patients (those requiring their operation within 30 days) and that these improvements were sometimes at the expense of non-urgent elective surgical patients. Changes in performance for off-stretcher times were mixed (Duckett, Dwyer et al. 2005).

Factors that had helped or hindered success were identified at two levels; project-level and hospital-level. Across participating hospitals ‘the critical enabling factors were organisational readiness, effective leadership, recognition of the need to make changes ‘stick’ and the development of capacity for what we have called knowledge-based management’ (Duckett, Dwyer et al. 2005, p 1). Those working at the hospitals identified three common threads ‘of insight and understanding’ – that access block is not an ED problem but a ‘whole of hospital’ problem; moving beyond a ‘silo mentality’ and improved understanding of the entire care process.

2.2.3 Evaluation of the Maggie Program

In 2006 the Hunter New England Area Health Service initiated an evaluation of its Maggie Program, the precursor to CSRP (McDonald, Swan et al. 2006). Appendix 2 provides a brief overview of the evaluation and it findings. Overall, the evaluation found that the Program resulted in a number of significant changes and system improvements:

… particularly where project success factors were evident and project selection and scope aligned closely with capability and capacity. Innovations or radical transformations, however, have not been universal as originally envisioned, with most solutions (97%) classified as fine-tuning or incremental improvements. The lack of focus on clinical effectiveness has been reported as a major barrier to medical staff engagement and overall Program success. (McDonald, Swan et al. 2006, p 5)

These findings from the evaluation of the Maggie Program complement our findings to date in the evaluation of the CSRP, which is not surprising given that the Maggie Program established much of the template for the CSRP. There is the potential to use the findings from the two programs to build on the each other and inform the ongoing development of clinical redesign in NSW.
3 Key performance indicators

3.1 Emergency department

The KPIs associated with EAP, triage times and off-stretcher times were analysed, not to measure the impact of specific projects at hospital level but as an overall examination of performance at the state, area health service and peer group level. EAP is defined as the percentage of admitted patients who are admitted from the emergency department within 8 hours from the time they were first treated. Triage time is defined as the time in minutes from when the patient is triaged to when the patient is first treated, either by a doctor or by a nurse.

Target triage times exist for each triage category. We have been advised by the Health Department that the audited results for Triage Category 1 have been 100% since before the commencement of the CSRP. Hence no analysis of this performance indicator has been included in the report. We have included analysis of the remaining triage categories, with a focus on triage categories 3 and 4 which have historically been the most problematic, as indicated by the time series analysis of these indicators.

3.1.1 Emergency admission performance

Prior to mid 2004, EAP had been consistently decreasing since 1999 (Figure 1). The target for EAP is 80%, which was the level the series was at in July 1999. For the CSRP this is the target to be achieved by June 2008 and the seasonally adjusted trend achieved this target in late 2006. There has been some decline in EAP performance in the first half of 2007. It is our understanding that demand during winter 2007 was particularly challenging for EDs and much will now depend on how the health system emerges after the winter period. The pressure on the system during winter 2007 is illustrated by the comments of this hospital general manager:

The redesign project was excellent, there’s no two ways about that. It focused us on a whole range of issues that we needed to do some work on and we systematically went through those and we saw a phenomenal improvement … we maintained that level of good performance for quite a period of time … June this year all the wheels fell off. Absolutely every single one of them and we went back to a horrendous access block. Huge, huge volume issues through the emergency department, the walk-ins, the ambulance presentations, everything was just totally, bowled us over again … we got extra beds in the SAP rounds a couple of years ago, but I think we’ve soaked those up and we’re now back into a situation where our capacity is becoming an issue with how we can continue. The redesign only works so far, you’ve actually got to have somewhere to move them into and I think we’ve actually run into a bit of a roadblock with capacity … We haven’t got it right by any stretch of the imagination but we are 100% better than what we were two years ago, but we’re still nowhere near where as good as I’d like to see us and certainly the last two months have been very distressing for a whole range of reasons. …we just didn’t hit it at all well this year, so we’re going to have to do it all again … it’s an ongoing process that, we actually don’t stop. (H)

We return to the issue of demand on EDs later in this section.
Hospitals were grouped into peer based categories as follows: Category A (Principal Referral), Category B (Major Metropolitan), Category C (Major Non-Metropolitan) and Category D (District Hospitals). The series for district hospitals is not long enough for a trend to be fitted however the performance of this group has remained greater than 95%. EAP in Peer Group A and Peer Group B declined consistently for five years up until mid-2004, at which point both groups of hospitals started to improve their performance and continued to do so for over two years. Principal referral hospitals showed the largest improvement. In late 2006 the EAP for peer groups A, B and C levelled off then started to decrease and this trend continued until June 2007 (Figure 2).
The CSRP focused on metropolitan AHSs with regard to improving EAP performance. The strong trend of improved EAP from mid-2004 for metropolitan areas is a major factor behind the improvement in state level performance. The non-metropolitan trend decreased consistently over the length of the series, from a starting point of 95% to around 83% in June 2006, which was above the targeted performance and better than the metropolitan performance. The gap between metropolitan and non-metropolitan performance decreased significantly and was almost equal towards the end of 2006. At this point, the trend appears to have reversed for both metropolitan and non-metropolitan AHSs, with non-metropolitan AHS’s EAP increasing by around 2% and metropolitan AHS’s EAP decreasing by around 3% (Figure 3).

**Figure 3**  Emergency admission performance by metro and non-metro area health services

![Emergency Admission Performance Chart](image)

Note: The total average EAP for the series for metro AHSs is 71.2% and for non-metro AHSs is 87.8%.

At the AHS level, there are large variations in this performance indicator. Figure 4 shows only the trend series. The major feature of this graph is the improvement in EAP at Sydney West AHS between June 2005 and April 2006, after which it has shown a continual decrease to around 75% at the end of the series. Performance was worst for most areas at the end of 2003/04 and has since turned around and improved by around 25 percent. Since late 2006 / early 2007 there is a mixed picture, with some areas improving and some showing a decrease in performance.

The Children’s Hospital at Westmead demonstrates a large level of variation as its series contains only one hospital. By June 2007 the EAP performance of most areas ranged from 75% to 85%. Northern Sydney Central Coast AHS has shown a decline since late 2006 and is now at the lowest level of around 65%. Hunter New England AHS has been improving since around June 2003 and is now remaining steady at around 85%. This is possibly a delayed but on-going result of the Maggie project, which commenced in mid 2002, as no other AHSs had a major change in trend direction till later in the series. The EAP of North Coast AHS showed decreasing levels of performance from the beginning of the series up until late 2006. Since then, an improvement in EAP has emerged.
Figure 4  Emergency admission performance by area health service (trend)

Note: The total average EAP for the series for each AHS is as follows: Children’s hospital 74.7%; Syd South West 71.1%; South East/Illawarra 66.2%; Sydney West 67.5%; North Syd/CC 70.5%; Hunter/New Eng 83.3%; North Coast 85.7%; Greater Southern 88.0% and Greater Western 91.1%.

The data for Sydney South West have been adjusted for May 2007 to exclude Concord Hospital due to data quality issues. Data for May-June 2007 for Sydney West have been excluded due to data quality issues.

Figure 5 shows the EAP for the nine largest principal referral hospitals, almost all of whom had ED or patient flow projects early in the life of CSRP. Over the length of the series there have been marked differences between the performance levels of the hospitals. However, from early 2006 there has been a convergence of the EAP level for these hospitals, with all hospitals continuing improvement till the end of the series except Liverpool, Royal North Shore and Westmead hospitals. These three hospitals have shown a decreasing trend in EAP from around late 2006.

Further analysis (not included here) indicates that the pattern of improvement in EAP is broadly consistent across the 3 cohorts used in the evaluation (John Hunter Hospital, hospitals involved in the ABIP and all other hospitals), although John Hunter Hospital exhibits a higher level of variation than the other cohorts due to there being only 1 hospital in this cohort. In general, EAP across each of the 3 cohorts increased from about mid-2004.

Three age groups have been identified of interest in analysing EAP: those aged 0-18 (children), 18-64 (adults) and 65+ (older people). The EAP varies markedly between these groups, with children having the best access followed by those aged 18-64, then older people (Figure 6). There was a sharp improvement occurring in the eldest age group during mid 2004 and mid-late 2006. CSRP projects focusing on improving access for older people will be of interest in future years as projects are implemented, particularly given the downturn in performance in early 2007 for EAP for those aged 65+.
Figure 5  Emergency admission performance by hospital (trend)

![Graph showing emergency admission performance by hospital (trend)]

Notes:
The total average EAP for the series for each hospital is as follows: Royal Prince Alfred 64.0%; Royal North Shore 64.5%; St Vincent’s 51.7%; Prince of Wales 58.9%; St George 61.7%; Concord 66.0%; Liverpool 72.2%; Westmead 60.9%; and John Hunter 73.0%.

Data for May-June 2007 for Westmead Hospital and May 2007 for Concord Hospital have been excluded due to data quality issues.

Figure 6  Emergency admission performance by age group - NSW

![Graph showing emergency admission performance by age group - NSW](image)

Note: The total average EAP for the series for <18 age group is 91.1%, for the 18-64 age group is 74.2% and for the 65+ age group is 66.6%
3.1.2 Triage category 2

80% of triage category 2 patients are expected to be seen within the benchmark time of 10 minutes.

As shown in Figure 7, the performance for triage category 2 remained fairly constant until late 2004, varying between 70% and 80%, which is just below the target level. From this point, performance started to improve and continued to do so for the next two years, reaching a peak of 89.6% in Jan 2007. Since that time performance for triage category 2 decreased but remained above the target.

Figure 7  Triage category 2 - performance target met: NSW July 1999 to June 2007

Note: The total average EAP for the series for Triage category 2 is 78.0%

At the AHS level, triage category 2 performance has historically been worst in Northern Sydney Central Coast AHS, with performance between around 60% and 70% up until late 2005. From this point until around mid 2006, triage 2 performance increased rapidly and remained above the 80% target up until early 2007. The trend has since fallen back down to around 75% at the end of the series. All AHS’s have converged around the 80%-90% level, except the Children’s Hospital, which has had around 100% performance throughout the entire series (Figure 8).

Of the three patient age groups, those aged under 18 have the best performance for triage category 2. Those aged 65+ are no worse off than those aged 18-64.
3.1.3 Triage category 3

Triage category 3 patients are recommended to be seen within 30 minutes. From mid-2005 performance improved steadily until late 2006, with performance almost reaching the target level of 75%, after which triage category 3 performance levelled off to around 70% (Figure 9).

Note: The total average performance target met for the series for Triage category 3 is 60.9%.
The triage time performance for triage category 3 by peer group hospitals is displayed in **Error! Not a valid bookmark self-reference.**. The series for Peer Group D hospitals is not long enough for a trend to be fitted however the performance of this group has been above the 80% target over the 3 years of the series. Peer Group A and Peer Group B both exhibited changes in trend towards mid-late 2005. Peer groups A, B and C all showed an improvement in performance between early 2006 and early 2007, with principal referral hospitals showing the largest improvement in magnitude. From this point on, the trend appears to have changed for peer groups A and B, and performance is now decreasing.

**Figure 10  Triage category 3 - performance target met by peer group hospitals**

Note: The total average performance target met for the series for Triage category 3 for Group A hospitals is 54.4%, for Group B hospitals is 64.2%, for Group C hospitals is 78.4% and for Group D hospitals is 92.5%.

Metropolitan and non-metropolitan AHSs have been grouped and their triage category 3 performance is shown in Figure 11. There is a similar pattern of improved performance in the two groups from the second half of 2005 up until the end of 2006, after which both groups have declined slightly. Both metropolitan and non-metropolitan AHSs are performing at the same rate of around 72% at the end of the series.
Figure 11  Triage category 3 - performance target met by metropolitan and non-metropolitan area health services

Note: The total average performance target met for the series for Triage category 3 for metro hospitals is 58.7% and for non-metro hospitals is 72.2%.

At an AHS level Greater Western and Greater Southern AHSs have been performing the best and generally remained above target almost throughout the entire series, however Greater Western AHS has decreased from early 2007 and is now just below the target at around 70%. All other AHSs are performing between 60% and 80% and the trend appears to have flattened out in most areas for the last few months of the series (Figure 12).

Figure 12  Triage category 3 - performance target met by area health service (trend)

Note: The total average performance target met for the series for Triage category 3 for each AHS is as follows: Children’s hospital 51.7%; Sydney South West 57.1%; South East/Illawarra 59.9%; Sydney West 52.8%; North Sydney/Central Coast 60.0%; Hunter/New England 67.3%; North Coast 64.5%; Greater Southern 79.7% and Greater Western 78.4%.
At the age group level, there is very little variation in triage category 3 performance across all 3 age groups.

3.1.4 Triage category 4

70% of triage category 4 patients are recommended to be seen within 1 hour. The pattern across the time series is quite similar to that for triage category 3 patients with a period of improving performance in the second half of 2002, then a period of relatively stable performance until about mid-2005, after which there has been considerable improvement until late 2006, attaining and surpassing the performance target in mid-2006. There has been a slight decline in 2007, while remaining above the performance target of 70% (Figure 13).

Figure 13 Triage category 4 - performance target met: NSW July 1999 to June 2007

Note: The total average performance target met for the series for Triage category 4 is 65.5%.

The triage time performance for triage category 4 by peer group hospitals is displayed in Figure 14. The series for Peer Group D hospitals is not long enough for a trend to be fitted however the performance of this group has been well above the 70% target over the 3 years of the series. Peer Group A and Peer Group B both exhibited changes in trend towards mid 2002. Peer groups A and B are now performing at the same level of around 70%, or right on target. Peer Group C has remained above target throughout the entire series and is now around 85% at the end of the series.

Metropolitan and non-metropolitan AHSs have been grouped and their triage category 4 performance is shown in Figure 15. Both metropolitan and non-metropolitan hospitals are performing above the 70% target at around 73%. Non-metropolitan hospitals are remaining at this level, which has been a steadying of the previous downward trend. Hospitals from the metropolitan AHSs have had a positive trend since around mid-late 2005 which has flattened out to around 75% over the last 6 months of the series.
Figure 14  Triage category 4 - performance target met by peer group hospitals

Note: The total average performance target met for the series for Triage category 4 for Group A hospitals is 57.5%, for Group B hospitals is 67.2%, for Group C hospitals is 80.7% and for Group D hospitals is 96.4%.

Figure 15  Triage category 4 - performance target met by metropolitan and non-metropolitan hospitals

Note: The total average performance target met for the series for Triage category 4 for metro hospitals is 62.9% and for non-metro hospitals is 75.2%.

At an Area level, the Children’s Hospital Westmead has had poor triage category 4 performance, with the performance level varying markedly, and remaining below 50% from mid-2000 to early 2006. North Coast, Sydney Western and North Sydney/Central Coast also remain under the 70% target. Greater Western and Greater South AHSs have been performing above target for the
entire series (Figure 16). The trend appears to have flattened out for most AHSs over the last few months of the series, however further data are required before strong conclusions can be drawn.

**Figure 16  Triage category 4 - performance target met by area health service**

![Graph showing performance target met by area health service](image)

Note: The total average performance target met for the series for Triage category 4 for each AHS is as follows: Children’s hospital 46.1%; Sydney South West 63.2%; South East/Illawarra 62.8%; Sydney West 59.0%; North Sydney/Central Coast 63.9%; Hunter/New England 66.5%; North Coast 67.2%; Greater Southern 79.1% and Greater Western 82.7%.

At the age group level, there is a small amount of variation in triage category 4 performance across age groups. All age groups have followed a similar trend over the entire series. The triage time performance is slightly worse for people aged 65+ than the 18-64 year age group, who are in turn slightly worse off than those aged below 18.

### 3.1.5 Triage category 5

Triage category 5 is considered generally to be not problematic. For this group, 70% of patients are expected to be seen within two hours. Across the state this benchmark has been exceeded for the length of the series (Figure 17).

All AHSs have generally been performing above the benchmark level except the Children’s Hospital at Westmead which slipped just below the 70% target in 2002 and in 2004 (Figure 18). All AHSs except this one are currently performing between 85% and 95% which is well above the target.
**Figure 17  Triage category 5 - performance target met: NSW July 1999 to June 2007**

Note: The total average performance target met for the series for Triage category 5 is 86.8%.

**Figure 18  Triage category 5 - performance target met by area health service (trend)**

Note: The total average performance target met for the series for Triage category 5 for each AHS is as follows: Children’s hospital 76.8%; Sydney South West 84.8%; South East/Illawarra 84.4%; Sydney West 87.6%; North Sydney/Central Coast 85.9%; Hunter/New Eng 90.4%; North Coast 88.5%; Greater Southern 89.0% and Greater Western 94.0%.

Amongst triage Category 5 attendances, there is little variation in performance amongst age groups.
3.1.6 Other emergency department performance indicators

Work undertaken recently in Australia aimed to provide a series of performance indicators, using routinely collected data, that could be used to measure most aspects of a patient journey through an ED (Sibbritt, Isbister et al. 2006). The indicators included length of stay in ED, for both admitted and non-admitted patients, ‘did not waits’ and number of deaths, and we have used these as the basis for obtaining a more rounded picture of ED performance. Use of the latter is supported by studies that have found an association between ED and hospital overcrowding and increased mortality for patients admitted to hospital via ED (Cooke, Fisher et al. 2004; Richardson 2006; Sprivulis, Da Silva et al. 2006), resulting in the argument that overcrowding should be treated as a patient safety issue (Cooke, Fisher et al. 2004; Richardson 2006; Sprivulis, Da Silva et al. 2006).

Length of stay - admitted patients

The total amount of time that an admitted patient spends in the ED is calculated from the time they arrive to the time that they depart (i.e. are admitted to a ward, inpatient unit or operating suite). Figure 19 shows the distribution of the total time spent in the ED for admitted patients, calculated in 1-hour intervals, for both 2003-04 and 2006-07. This was done to compare performance between the year prior to the commencement of the ABIP and the most recent year. The graph shows that there has been a remarkable improvement in the number of patients spending more than 12 hours in the ED, especially those spending more than 24 hours in the ED. Almost 6% of admitted patients were spending more than 24 hours in the ED back in 2003-04. This figure has dropped to around 2% in 2006-07. For all time intervals less than 8 hours the % admitted within that time increases between 2003-04 and 2006-07. For all time intervals after 8 hours (except 8-9 hours) the % admitted in that time decreases between the two years. This suggests that there has been a systematic improvement in the time admitted patients spend in ED.

Figure 19 Distribution of total time in the ED – Admitted patients: 2003-04 and 2006-07, NSW

Length of stay - discharged patients

The total amount of time that a discharged patient spends in the ED is calculated from the time they arrive to the time that they are discharged from the hospital.
Figure 20 shows the average total time (in hours) spent in the ED for discharged patients from July 1999 to June 2007, with a high amount of variability early in the series, up until around early 2002 after which the series has remained relatively flat. The average time that discharged patients spend in the ED is just under three hours and has remained at this level since around late 2002, but the reduction in variability indicates greater equity in the treatment of this group of patients.

**Figure 20  Average total time in the ED – Discharged patients: Jul 1999 to Jun 2007, NSW**

Deaths in the ED

Figure 21 shows the total number of deaths per 10,000 in the ED from July 1999 to June 2007 and indicates a high amount of variability and a strong seasonal pattern, with pronounced mid-year peaks. Since around late 2004 the number of deaths per 10,000 has shown a decreasing trend and since then the number of deaths per 10,000 has remained between around 8 and 14. The number of deaths has remained relatively constant, with the decrease in the rate due, in part, to the increasing number of attendances.

**Figure 21  The number of deaths occurring in the ED per 10,000: Jul 1999 to Jun 2007, NSW**
Did not waits

From 1999 to 2007 the percentage of people who did not wait has fluctuated around the 6% mark, decreasing to around 5% from mid 2004 and remaining steady to the end of the series (Figure 22).

**Figure 22** Emergency department ‘did not waits’, NSW

![Emergency department 'did not waits'](Figure 22)

Note: The total average percentage of attendances that did not wait is 5.7%.

### 3.1.7 Emergency department demand

The number of ED attendances has shown a rapid increase from around 125,000 in mid 2004 to around 155,000 at the end of the series (Figure 23), an increase of about 24% in three years. The main increases are in triage category 4 and triage category 5 attendances. In NSW over the 8 year period the percentage of people admitted to wards has varied between around 21% and 24%, with a very strong seasonal pattern (Figure 23). There is no clear trend apparent in the series.

**Figure 23** Emergency department attendances and admissions to wards - NSW

![Emergency department attendances and admissions to wards - NSW](Figure 23)
From early 2004 till early 2006, Hunter New England AHS has had a large increase in attendances of the order of around 8000 during this 2-year period but performance has remained steady or even slightly improved. North Coast AHS has also seen an increase of a similar magnitude during 2004/05 that has since flattened. South Eastern Sydney Illawarra AHS has shown a consistent increase in the number of attendances since mid 2004 to the end of the series, with an increase of around 8,000 during this period. Most of the other areas have experienced gradual increases in attendances over the period, except Sydney West AHS which had a rapid decrease in the number of attendances during the past 12 months of the series (Figure 24).

**Figure 24  Emergency department attendances by area health service (trend)**

Note: The total average number of attendances for the series for each AHS is as follows: Children’s hospital 3,568; Sydney South West 22,088; South East/Illawarra 25,798; Sydney West 16,399; North Sydney/Central Coast 17,598; Hunter/New England 17,496; North Coast 10,869; Greater Southern 7,666 and Greater Western 7,533.

Figure 25 depicts the admission rate for people attending emergency departments by area health service. This should be interpreted with reference to the previous graph showing attendance levels. South Eastern Sydney Illawarra AHS has had a long trend of increased admission rates, dating back to mid 2002, up until mid 2006. The admission rate has moved from 19% to around 25% during this period, and attendances stayed fairly flat whilst EAP continued to improve. However, during the last 12 months of the series, during 2006-07, the trend has changed, with the number of attendances increasing, admission rates decreasing, and EAP flattening out. Northern Sydney Central Coast has also had a decrease in the admission rate over the 2006-07 period occurring while an increase in attendances continued. From around October 2006 to the end of the series, the trend in EAP has changed and is now decreasing at a rate of around 1% per month.

The average admission rate for the largest hospital in each of the metropolitan areas for the time series is: Royal Prince Alfred Hospital 26.1%; Royal North Shore Hospital 33.2%; Westmead Hospital 32.9%; Prince of Wales Hospital 29.0%; John Hunter Hospital 26.6%. Investigation of any reasons for the differences in these admission rates may be worth undertaking. The hospital with the lowest rate (John Hunter) consistently has good EAP performance; the hospital with the highest rate (Royal North Shore) consistently has poor EAP performance.

Further analysis (not presented here) shows that the percentage of attendances admitted has remained relatively stable across the entire series for both metropolitan AHSs and non-metropolitan AHSs and so the change in EAP (presented earlier) for both metropolitan and non-metropolitan AHSs can not be attributed to a significant increase or decrease in admissions.
3.1.8 Improvements to emergency departments

During interviews with senior managers a range of strategies were identified as contributing to improvements in ED performance, including small capital investments to improve ED infrastructure, additional staffing and increased use of protocol-based treatment, primarily by nursing staff but also by junior medical staff. Based on the responses from hospital general managers, the impact of additional beds appears to have been of particular importance in improving EAP in some hospitals. As was the case in the year 1 interviews, the importance of senior medical and nursing leadership in EDs was mentioned by several interviewees as being of critical importance.

The general theme from the interviews was that improving ED performance is very much an ongoing process, with hospital general managers in particular describing a story spanning several years and involving many different initiatives, with CSRP often contributing an important chapter in the story, both directly and indirectly:

*The main factors that’s changed are two fold. One is the clinical services redesign initiatives which looked at the systems and the processes in the emergency department and how those could be improved to actually improve the overall service delivered, particularly the timeliness of the service. So that’s been positive. We believe that’s allowed a lot of smaller but important process changes to occur, which has improved those emergency departments, to the extent that being able to do that has been cross fertilised between the different major emergency departments. The second one is accountability and focus. (A)*

*But there are two factors that lead to improvements in performance, clinical redesign, doing things in a different or better way and capacity. And two years ago we got a bit of both … no redesign project is going to lead to Nirvana if you’ve got issues around capacity … I think there’s a capacity issue for this year which wasn’t addressed in the same way as it was two years ago when there was a real concerted effort to put additional resources in, whether it be beds or bed equivalent. That helped us an awful lot. (A)*
It's quite clear there's no identifiable one model that supports good ED practice … clinical redesign process within ED seems to be just continuous, and seems to be just rolling, and it's not always keeping what it tries. It's trying things and moving on. (H)

We did really well in access block in the first year without having major projects, because there were a lot of things already happening. (H)

Beds and resources, I think, have been the major thing … we've got more beds available to us than we had before … it wouldn't matter how clever you were, without those beds. (H)

One possible explanation of the need for constant innovation is the finding from a systematic review of the literature on innovations in EDs that the apparent ‘cause’ of problems in ED may be the most severe bottleneck in the system as a whole and interventions to ‘solve the problem’ may bring other, less obvious, causes more to the fore (Cooke, Fisher et al. 2004). This idea is the foundation of the theory of constraints.

One of the important ideas from the work on patient flow is that queues form not only when demand exceeds capacity but also when there is a mismatch between variations in demand and variations in capacity. Unused capacity at one point in time cannot be ‘passed on’ and used at a later point in time (Silvester and Haraden 2007). This understanding was apparent amongst some of the interviewees (the issue did not arise in all interviewees) with local work being undertaken to examine variations in demand, how to respond to those variations, and monitoring the outcome to track any reduction in performance variation.

In addition to the work done as part of individual projects there has been the CSRP program-level work undertaken under the banner of ‘models of care’, for example the publication of the ‘Models of Emergency Care’ document promulgated with ‘road shows’ and publication on the ARCHI website. The net result is that many initiatives have been implemented in NSW EDs within the last 2-3 years, including fast-track and the 3:2:1 model. Whether it be at the project level or the program level, much of this is due to CSRP.

Fast track zones existed before we started Access Block Improvement Program so what we’ve done there is we’ve taken that off the shelf and we’ve inserted it into the solutions that come out, either by encouraging the four partners to entice it out of people so that you get ownership of this concept and you enable them to label it the way that they want to label it so that they feel as if they own it, so some of the solutions have come off the shelf. Others have arisen spontaneously out of the redesign projects. (D)

Prior to 2005 it is our understanding that fast-track had only been implemented in two EDs in NSW, whereas currently such systems are present in 28 EDs. The available evidence indicates that ED fast-track systems appear to be efficient, cost-effective, safe, and satisfactory for patients, with shorter lengths of stay in ED for low acuity patients (Yoon 2003). However, despite the fact that fast-track has been around for approximately 20 years, the studies on which this evidence is based have significant weaknesses. There are various options for implementation of fast-track which suggests the need for ongoing investigation to build on the basic knowledge that ‘fast-track works’ to better understand how it works best and in what circumstances. It has been suggested that the improved access for minor cases resulting from fast-track systems has the potential to increase demand, although there is no evidence to support or refute this (Cooke, Fisher et al. 2004). This may be worth investigating, particularly given the as yet unexplained increase in ED attendances in the last two years. There are many models of service provision in ED currently being trialled across the country and it has been suggested that there is a need for comparative evaluations to inform the selection of the most efficient and cost effective models (Australian Health Workforce Advisory Committee 2006).

3.1.9 Impact of ABIP and CSRP

The ABIP was implemented in mid-2004 with a focus on improving EAP. The CSRP commenced in mid-2005 and the initial projects were heavily concentrated on ED and patient flow projects.
The KPIs for CSRP not only included EAP but also triage times. As can be seen from Figure 26 the statewide improvement in EAP commenced about the same time the ABIP started and the statewide improvement in triage category 3 and triage category 4 performance started about a year later. Although it is not possible to attribute improved EAP to the ABIP and CSRP programs and improved triage performance to the CSRP program it is possible to say that, whatever the reasons, the results that were achieved were consistent with the goals of both programs. During the period of both programs several initiatives were implemented, as depicted in Figure 26. The impact of any one of these factors individually on the performance is unclear. A combination of seasonal and irregular variation means fluctuations in monthly performance of the order of 5%-10% over the year are not uncommon and should be interpreted as such.

**Figure 26** Emergency admission, Triage category 3 and 4 - performance: NSW Jan 2002 to June 2007

![Figure 26](image)

### 3.1.10 Summary

After a five year period of declining EAP a significant improvement has taken place, in combination with large improvements in performance for triage categories 2, 3 and 4. Changes in the length of ED stay for admitted patients indicate systemic improvements. It is interesting to note that in two performance areas that were not the focus of either the ABIP or the CSRP (‘did not waits’ and patients discharged from ED) performance has not improved.

High bed occupancy, rather than the number of beds per se, appears to be the major driver of access block problems (low EAP) (Dwyer and Jackson 2001). Computer simulation using UK data indicates that increasing bed occupancy above a mean of 90% will result in regular problems finding a bed for an emergency admission (Bagust, Place et al. 1999). There is evidence that when occupancy exceeds the 90% threshold ED length of stay will increase (Forster, Stiell et al. 2003). These findings arise not only because demand may exceed capacity but also because there may be a mismatch between variations in demand and variations in capacity (Silvester and Haraden 2007). Strategies to reduce variation (which as indicated in this report can occur as a result of redesign) should continue to be pursued. Occupancy, variability and patient flow are inextricably linked, and there is a need to take a ‘whole of hospital’ approach, as indicated by the finding that reducing the variation in discharge rates will do more to reduce variations in occupancy than reducing variation in admission rates (Harrison, Shafer et al. 2005).
3.2 Ambulance off stretcher times

Off stretcher time (OST) is the time between ambulance arrival and transfer of care. Data are presented here for the period from January 2003 to July 2007. However, these data are hampered by limitations in comparability over time. These limitations are:

- There is a discontinuity at April 2004. Ambulance priorities 1, 2 & 3 were included from April 2004. Priority 1 only was reported prior to April 2004. This change increased monthly volume by around 6000 cases per month, or 26% of the case load. Ambulance priorities are not identifiable in our data and thus the discontinuity cannot be avoided. This is regarded as the main discontinuity in the data and it is marked in all graphs presented in this section.

- There appears to be a second discontinuity at August 2003. Prior to this time, there are no data for Shellharbour, Shoalhaven, Wollongong, Albury and Wagga Wagga hospitals.

- The coverage of this data item has improved considerably over time. The percentage of cases with missing data has decreased from 44% in April 2004 to 5% in September 2006 (Figure 27). Whilst this is clearly an improvement, it may affect comparability over time. For this report, it is assumed that the data are ‘missing completely at random’, and hence that there is no correlation between the mechanism for missing data and off stretcher time. Note that the missing data series shown in Figure 27 is also affected by the discontinuities mentioned above, since hospitals which are completely omitted from the data could not be included in this calculation.

**Figure 27 Percentage of cases with missing off stretcher time - NSW**

![Percentage of cases with missing off stretcher time - NSW](image)

The off-stretcher time KPI is defined as the percentage of cases under 30 minutes, with the target for CSRP being to increase this to 95% or more by June 2008. With the above caveats in mind, this indicator improved by about 12 percentage points on the trend in the two years to July 2006. Half of this improvement, however, has been reversed in the subsequent year to July 2007. In this year, the indicator decreased from 80% to 74% on the trend, or by 9 percentage points, from 75% to 64% on the raw data (Figure 28).
The same data are presented by AHS in Figure 29. There was considerable variation between areas. Trend lines have not been fitted here due to very high proportions of missing values for some areas in the early periods. Substantial increases occurred for most areas within Sydney in the two years from August 2004. The inclines were greatest for Sydney West and Sydney South West. Inclines are also observed for South Eastern Sydney Illawarra and the Children’s Hospital at Westmead. It is important to note that the metropolitan areas have had the lowest proportions of missing data over this period, thereby adding credibility to this finding. There are no data available for the Greater Western AHS. With the exception of Westmead Children’s Hospital, the KPI worsened in the year to July 2007. The AHSs with the largest decrease in this year were Sydney South West (15 percentage points) and Sydney West (12 percentage points). The same data analysed by cohort (John Hunter, ABIP, non-ABIP) showed a similar pattern of improvement and deterioration in the three cohorts to that of NSW as a whole and the AHSs (figure not included).

Figure 30 shows how the distribution of OST has changed over the period. The recent deterioration in performance is driven both by cases taking over 60 minutes and by cases taking between 30 and 60 minutes. The proportion of cases over 60 minutes is higher for July 2007 than at any month since 2004 on both the trend and raw data. The increases in cases over 30 minutes were offset by a decrease in the proportion of cases taking less than 20 minutes. The proportion of cases taking between 20 to 30 minutes has stayed reasonably constant.
3.3 Surgery

The elective surgery waiting list excludes medical patients, patients ‘not ready for care’ and patients waiting for obstetrics and renal procedures. Waiting times exclude time not ready for care. Long waits are defined as those who have waited longer than 12 months for surgery. The elective surgery waiting list includes three categories of patients based on the desired time, judged by the surgeon, within which surgery should occur – within 30 days (Category 1), within 90 days (Category 2) and within 365 days (Category 3). Patients are considered to be ‘not ready for care’, either based on clinical grounds (staged) or a decision by the patient to defer admission for personal reasons (deferred).
3.3.1 Long waits for elective surgery

Figure 31 shows the number of long wait patients at the end of each calendar month from January 2002 to June 2007. The target for CSRP is to achieve zero for this performance indicator by June 2008. Overlaying that, the Health Department set AHSs the target of achieving zero long waits by 30 June 2006. Additional resources were devoted to achieving this, targeting low complexity cases in 2004/2005 and more complex cases e.g. orthopaedic joint replacements, in 2005/2006. This is reflected in the data with the major decline in the number of long waits occurring in the first half of 2005.

These initiatives are highlighted on the graph. After increasing for two years to January 2005, the number of long waits decreased sharply from April to June 2005. The $10m statewide elective surgery plan for long waits was implemented on April 2005. The decline continued subsequently to June 2006, when there were only 45 long wait cases remaining on the list. Since then the number of long waits has remained low. At 30 June 2007 there were only 79 cases.

Figure 31 Number of people on surgery waiting list for over 12 months - NSW

Figure 32 shows the same data by AHS over a longer period of time, with the decreases observed statewide evident for every AHS.

Further analysis (not included here) indicates that the pattern of declining long waits for surgery after March 2005 is broadly consistent across different hospital peer groups (principal referral, major metropolitan and major non-metropolitan) and the three cohorts used in the evaluation (John Hunter Hospital, hospitals involved in the ABIP and all other hospitals). Together with the similar pattern observed for each AHS this suggests the reduction in long waits is due to systemic factors (additional resources, focus on performance management) rather than the presence or absence of a surgery CSRP project in a particular hospital or AHS.

The limited impact of CSRP projects in reducing long waits by 30 June 2006 is also supported by the following:

- Three metropolitan AHSs had CSRP surgery projects (Sydney South West, Sydney West, Northern Sydney Central Coast) and two did not (South Eastern Sydney Illawarra and Hunter New England).
- CSRP surgery projects in rural areas were limited e.g. Dubbo, Wagga Wagga.
- CSRP surgery projects did not commence implementation until the second quarter of 2006.
Regardless of waiting time, the majority of patients who leave the surgery waiting list do so for routine admission (for their operation). Figure 33 shows removals from the waiting list by reason for removal and demonstrates the significant increase in activity to reduce long waits in the second quarter of 2005. The number of emergency admissions averages less than three per month, hence the line for that variable is barely discernible.

Figure 33 Long wait cases (more than 12 months) by reason for removal from waiting list – NSW

Note: ‘Not treated’ includes ‘unable to contact’, ‘admission not required – patient’s advice’ and ‘admission not required – doctor’s advice’. ‘Admission contracted’ includes ‘admission contracted to another public hospital’ and ‘admission contracted to private hospital’.

Figure 34 combines three inter-related series of data - the monthly change in the long wait list (over 12 months), the number of routine admissions for people who were waiting for over 9 months and the monthly change in people who are ‘not ready for care’, but have been on the waiting list.
for over nine months. As mentioned above, the long wait list count excludes people who are not ready for care. Figure 34 reiterates earlier results, showing a decrease in the long wait list in fifteen of the sixteen months to June 2006.

The volume of surgery for those waiting more than 9 months has remained quite constant over 2006/2007, with a decrease in the amount of surgery for those waiting longer than 12 months (for which the numbers are very small after June 2006) offset by an increase in the number of cases for those waiting 9-12 months. The change in ‘not ready for care’ patients increased for five successive months in the first half of 2005, during a period of increased surgical activity, but has since returned to the pattern observed beforehand, with minor month to month fluctuations. Taken together, the three lines on the figure indicate a more stable system for managing long waits since mid-2006.

Figure 34 Change in long waits (over 12 months), routine surgery (over 9 months) and change in ‘not ready for care’ (over 9 months) – NSW

3.3.2 Overdue urgent elective surgery

Urgent long waits for surgery are defined as Category 1 patients waiting over 30 days. Waiting time is calculated as the number of days since the patient was classified as Category 1. The majority of patients who leave the urgent surgery waiting list do so for routine admission. As for the overall long wait list, there has been no major change in the reasons for removal.

A new waiting list policy was issued in March 2006 which appears to have had a substantial effect on the assignment of urgency categories. To illustrate this, Figure 35 shows the proportion of new cases on the surgery waiting list classified as Category 1. This approach does not capture subsequent changes in urgency status but illustrates the possible effect of the policy, with the percentage of new urgent cases falling substantially in the six months following February 2006. On raw numbers, new urgent cases fell by 31% in the twelve months following February 2006. As such, March 2006 should be treated as a potentially important discontinuity in the series, which has been marked in each figure that follows.
The overall impact of the new policy is generally seen as being substantial:

*The biggest impact was the new policy, the waiting times for elective patients, unquestionably. (D)*

*(the new wait list policy) came up with clear rules about that, you know, set by surgeons, written up by surgeons. That policy has been a fantastic success. The Health Department gave us the tools we need to do the negotiations. It’s been a real success story up here. (H)*

The number of overdue urgent cases decreased by 73% in just two months to June 2006 and was down to 117 cases in June 2007 (Figure 36). It is clear that the reduction in the overall number of urgent cases on the waiting list is concentrated amongst those that are overdue but there has been a general decline in the number waiting less than 30 days (Figure 37).
Substantial reductions in the number of overdue urgent cases occurred consistently across AHSs (Figure 38).

Further analysis (not included here) indicates that the pattern of declining overdue urgent cases from March/April 2006 is broadly consistent across hospital peer groups (principal referral, major metropolitan and major non-metropolitan) and the three cohorts used in the evaluation (John Hunter Hospital, hospitals involved in the ABIP and all other hospitals). Not surprisingly, the hospitals with the largest number of overdue cases (principal referral hospitals) improved the most.

This suggests that the major reasons for the reduction in overdue urgent cases are systemic (additional resources, focus on performance management) rather than whether a particular hospital/AHS had a CSRP project or not, although a project may still have been beneficial in specific localities, as indicated by comments in Section 3.3.3.
The association in time between the introduction of the new wait list policy in March 2006 and the subsequent decline in both new urgent cases and overdue urgent cases strongly suggests that the new policy was the major factor in the decline. Certainly, no alternative explanation emerged from our interviews with senior managers.

We believe the decline in the number of new urgent cases after the policy was introduced is an important improvement. It suggests that there was an element of ‘over-classification’ of urgent cases prior to the new policy (the developed of which involved extensive consultation with surgeons). In such a situation it is not possible for those managing the waiting list to differentiate between those that are truly urgent and those that are not. Development and implementation of the policy provides a good example of using program-level, Health Department policy, to support activities in the field.

The average waiting time for routine urgent surgery admissions has decreased considerably since February 2006 (Figure 39). The trend line was 46% lower in June 2007 than in February 2006. This series increased considerably from July 2000 to January 2005 on both the raw and trend data. Closer investigation suggests that this increase is due to two factors. There had been a steady increase in admissions of overdue patients. There was also a steady decrease in the proportion of urgent patients being admitted within five days, which again turned around after March 2006 (Figure 40). It is clear that a greater proportion of urgent cases are being treated quickly and a much smaller proportion is overdue, both evidence of systemic improvement.

Figure 39  Average waiting time (days) for routine admissions for urgent surgery – NSW
3.3.3 The system for managing waiting lists

We flagged in our first report that up until June 2006 CSRP surgery projects had a limited impact on reducing long waits but the projects had the potential to assist AHSs to better manage elective surgery waiting lists in the long term and maintain the reduction in long waits. We have no reason to believe that this is not the case but it is not possible to demonstrate this using the data for the number of long waits. With all AHSs and individual hospitals achieving the CSRP target for long waits by 30 June 2006 rather than 30 June 2008, and essentially maintaining that target from June 2006 to June 2007, it is not possible to detect any differences between those hospitals/AHSs that had, or did not have, a surgery CSRP project. The impact of CSRP surgery projects is confounded by the impact of additional resources, improved performance management of waiting lists, and setting a target of zero long waits by 30 June 2006. In general, the uncertain impact of CSRP surgery projects is supported by comments made during interviews:

Overwhelmingly, the way in which that was done was just to pour extra resources in. There was some system redesign stuff but it was also, use more resources. The flexibility in the system is that we’ve got all of these private practitioners who we pay more to come in and do some more work in the public sector. And that’s what we’ve overwhelmingly done. (A)

Clinical redesign can take no responsibility for that. The CE and Director of Operations were non-negotiable that we’d meet the targets … if some of the sites were not tracking well on the performance, we started shifting the work around. It’s quite an autocratic management style, but I think it was felt it was necessary, to achieve the targets. (A)

Well, we did that by doing two things. One, doing more surgery and secondly managing the lists better … it was done by very systematically working out what had to be done, dividing that into a weekly and a monthly basis, and trying to meet specific targets for that period of time. So it was much more proactive management than we’d had before … Also there was extra money put in. (A)

The three comments above were made by senior managers in different AHSs, one with a surgery project and two without a surgery project. In some locations a surgery project appears to have had more of an impact, at least as gauged by these hospital general managers (in separate AHSs):

In surgery the clinical redesign is more clearly identified as the driver of the change, and the change was done in a way that when it changed, it changed and it stayed changed … we took out the inefficiencies, such as we used to have multiple cancellations … we introduced a 23-hour concept, of people spending less length of stay, so surgery’s been a real, absolute, sort of fantastic success. (H)
The surgery project certainly, there was things that came out that we needed to improve upon. (H)

In one AHS with an area-wide surgery project one general manager was of the opinion that the project had not had an impact whereas another general manager was of the opinion that it had.

During interviews with senior managers in year 2 a range of strategies were identified as contributing to improvements in managing surgery waiting lists, with the general theme being one of using data and planning to better match capacity with demand, variously described as ‘very systematically working out what had to be done’, ‘improved engagement in the planning of everything’ and ‘managing the waiting list properly’. Specific strategies mentioned included redistribution of elective surgery amongst hospitals and some pooling of lists. This is reflected in the range of solutions that emerged from the CSRP surgery projects including:

- use of a demand management tool
- pre-admission protocols
- peri-operative governance structure
- use of extended day only
- theatre staff scheduling template
- surgical dashboard
- CSSD hrs of operation aligned to operating rooms
- increased recovery capacity
- coordinated approach to stores management
- optimisation of theatre scheduling
- increase in number of surgeons with admitting rights at more than one area hospital
- reduction of late starts and early finishes in operating theatres and list pooling.

The roles played by directors of surgery and surgery managers in AHSs were also recognised by interviewees, together with the important role played by the Performance Manager (Surgery) based in the Health Services Performance Improvement Branch (HSPIB). The links between these positions and those with responsibility for managing waiting lists in individual hospitals provides a structure that was not present two years ago and indicates the importance of having a multi-level leadership system in place to manage performance. This is supported by the work of the Surgical Services Taskforce.

What is clear from the interviews is a view that elective surgery is more controlled than it used to be, with the trend being to ‘separate out’ surgery from other activities within hospitals (being treated in a ‘parallel park’ as one interviewee described it). The following comment is typical of many:

What’s happened with surgery is very interesting. We’ve gone to much more of a process driven model that separates surgery out from the rest of the organisation. And surgery has been incredibly successful. Whether that’s redesign or just other things happening around surgery is a moot point, but it has to be something, particularly around dashboards and getting in place good measuring systems. It’s a more controlled system. Surgery is a sausage factory in the end, elective surgery anyway, not acute surgery. But you should be able to say for nearly everybody that this is how we’re going to do each operation, this is roughly how long you’ll be in hospital. And if you press that 23 hours, you force the 23 hour business, then you end up with just this constant turnover. It’s just a conveyer belt. It’s been tremendous. (A)

One of the risks of any system of setting performance targets is that it may result in system distortions with, for example, a greater focus on reducing long waits resulting in less focus on other types of elective surgery. This does not seem to be occurring on a statewide basis. As the number of long waits declined from early 2005 the number of patients on the waiting list for
between 9 and 12 months also decreased, at least until November 2006. Since then there has been an increase of about 1800 cases of those waiting 9-12 months for surgery, which may make it more difficult to maintain the number of long waits at zero if that trend were to continue. The numbers waiting for less than 3 months, 3-6 months and 6-9 months appear to have been relatively stable since the commencement of the CSRP, other than the usual month-to-month variation (Figure 41).

**Figure 41 Number of people on surgery waiting lists by waiting time – NSW**

The average waiting time for routine surgical admissions has been declining since early 2006, with the average time people wait for their surgery reducing by about 20 days (approximately 20%) during that time (Figure 42). Interestingly, the average waiting time did not increase in 2005/2006, despite the considerable increase in routine admissions of long wait cases.

**Figure 42 Routine surgery admissions - average waiting time (days) – NSW**

Increased demand is a possible consequence of improved elective surgery waiting times but at this stage there is no evidence that this has eventuated (Figure 43).
Figure 43  Number of new surgery cases by month (regardless of whether treated)

Despite this there has been a small increase in the total waiting list for elective surgery in the first half of 2007 (Figure 44). It is too early to tell whether this is part of a sustained upward trend.

Figure 44  Total waiting list for elective surgery

3.3.4 Summary

There have been significant improvements in the management of surgical waiting lists and the fact that the number of long waits has now been maintained at close to zero for more than a year is a major achievement. Comments by managers, the impact of the new waiting list policy and an examination of what has been done to achieve improvement provide an interesting example of what is meant by the term ‘redesign’ and that redesign can occur in a number of different ways. Rather than redesigning processes at the project/hospital-level the focus has been more one of making existing processes more efficient and combining that with improved measurement, greater
accountability for performance, targeting of resources and use of policy to support practice i.e redesigning the system for managing elective surgery. The work done to ‘separate out’ elective surgery from the rest of the hospital system with increased use of day surgery, extended day only surgery and pre-admission clinics (with dedicated facilities and staffing) is one of system redesign. This work has a long history in NSW, with a couple of interviewees identifying the National Hospitals Demonstration Program in the mid-1990s as a major influence.

3.4 Length of stay

3.4.1 Relative Stay Index

The CSRP Business case identified efficiency improvements as one of its key priorities. The KPI for length of stay (LOS) was defined as a reduction in the Relative Stay Index (RSI) compared to a baseline year of 5% over four years: 0% in year 1; 1% in year 2; 2% in year 3 and 2% in year 4.

These targets were described in the business case as conservative, due to ‘the changing demographics of an ageing population and the medical and surgical advances made in care for the elderly’ potentially leading to an increase in the relative number of older patients, which may have a negative impact on the overall average length of stay.

The performance indicator is to be measure using RSI relative to the baseline year, which refers to 2003/04. A RSI allows comparison of acute patient LOS adjusting for type and case-mix of patients.

To calculate the RSI an inpatient episode level dataset is created using some exclusion criteria. This is the RSI baseline dataset. The episode length of stay of these records is trimmed and the records are grouped by DRG, age group and admission status. The length of stay for episodes in each of these groups over NSW over the given year is averaged, giving the expected length of stay for each combination of DRG x age group x admission status.

Once the baseline year has been established and the expected LOS for each episode have been calculated, the RSI is calculated. For a particular area over a time period, the RSI is calculated using the average of the trimmed actual LOS for the episodes in that area during that time period, and dividing by the average of the expected LOS for those episodes based on NSW for the baseline year.

For NSW in the baseline year, this will equal 1.00 as the episodes going into the numerator are the same as those in the denominator.

If the RSI for NSW for a given year is less than 1 it means that on average patients of the same DRG, age and admission status are staying for a shorter time than patients of the same DRG, age and admission status were in 2003/04. If the RSI for an area in the baseline year is less than 1 it means that on average patients of the same DRG, age and admission status in that area, are staying for a shorter time than patients of the same DRG, age and admission status in NSW in that baseline year.

RSI has been calculated separately for same day and overnight admitted patients. The number of episodes which contribute to the RSI calculations are shown in Figure 45 for same day and overnight admitted patients separately and in total.
Overnight admitted patient episodes contributing to RSI calculations have been rising slowly since the end of 2004, the number of overnight patient episodes in the 2006 calendar year is 8.4% higher than in 2004. The number of same day episodes is 5.3% higher in 2006 than 2004.

The RSI for overnight admitted patients is shown in Figure 46 from the beginning of July 2003 (the start of the baseline year) to March 2007.

A major fall in RSI occurred between April 2004 and April 2005 which measured 4.5%. This decrease in RSI occurred prior to the first CSRP project. During this 12 month period the NSW ABIP commenced (June 2004) and 763 new beds were created. From April to November in 2005 there was a small rise in the RSI and it has been decreasing slowly to the end of the series (March 2007) where it reached 0.94 in original terms, and 0.95 based on the trend series.
Figure 47 shows the RSI for each calendar year relative to the baseline year of 2003/2004. The 2006/2007 data is currently incomplete and contains data from July 2006 to March 2007. Year 1 of CSRP had a target reduction of 0%, and Year 2 a reduction of 1%. Relative to the baseline year, RSI has decreased by 3.9% to a value of 0.961 by the end of 2004/05, had decreased from the baseline value by 4.65% to 0.964 at the end of 2005/06 (a slight increase in RSI from the previous year) and was down 5.2% to 0.948 for the 2006/2007 year to March 2007. The RSI KPI is currently exceeding the target.

Figure 47  Relative Stay Index by financial year, overnight patients: NSW 2003/2004 to 2006/2007

![Graph showing RSI trend from 2003/2004 to 2006/2007]

Note: 06/07 data from Jul06 - Mar07

Figure 48 shows the monthly RSI for each AHS for overnight admitted acute patients relative to the baseline financial year 2003/04. The RSI shown above is the trend line only, the raw data have not been included in the graph.

There was a sharp decrease in the RSI of Western Sydney, from early 2004 to late 2006. Greater Southern AHS trend series decreased from 0.926 to 0.827 between July 2003 and March 2007. The general trend in each area is a decrease in RSI over the length of the series. Greater Western, Western Sydney and South West Sydney AHS have all experience slight increases in RSI in the more recent months, for Greater Western this upward trend in RSI has been present since mid-2006.
3.4.2 Readmission rates

One of the potential adverse outcomes of reducing lengths of stay in hospital is increasing the rate at which patients get readmitted to hospital after they have been discharged. This indicator is somewhat problematic due to the nature of how it is recorded, requiring as it does a judgement when the person is readmitted as to whether the readmission is an unplanned event that is linked to the previous admission.

Figure 49 shows the readmission rate since July 2003. Only episodes classified as emergency admissions are included. These are defined as episodes that, at the time of diagnosis, were classified as requiring treatment as an admitted patient within 24 hours. Non-emergency admissions, admissions with urgency not assigned (includes dialysis and chemotherapy), maternity, and regular same day planned admissions are excluded. Readmissions are episodes where the patient is readmitted to the same facility within 28 days. These readmissions may be for the same condition or for a different condition and are calculated as a percentage of all admissions with a valid readmission value.

The readmission rate started increasing in mid 2004 and increased rapidly in the first six months of 2005. The readmission rate has been steadily increasing since mid-2005, however the rate of increase is less than that observed in early 2005.

While the increase in the rate of readmissions has slowed, this figure flags an issue for further investigation. With almost one in ten admissions now being a readmission, an opportunity exists to investigate whether the CSRP methodology can be used to reduce this rate of readmission.
3.4.3 Tracer conditions – cardiac and respiratory patients

In this section, we examine the total length of hospital stays for a specific population that has been the subject of much attention in the CSRP. These are the set of inpatients aged 75 and over, whose primary diagnosis was cardiovascular (Diagnosis Related Groups (DRGs) F62A, F62B, F72A and F72B) or respiratory (DRGs E65A and E65B) and who had been admitted to hospital from the ED. For this analysis, we utilised a custom built database that was a merger of episode records from the ED and inpatient data collections.

The ED and HIE inpatient data were merged using records which match on the variables facility, medical record number and arrival time. A time window of 4 hours is used for the arrival time as the recorded arrival time in the Patient Administration System may differ by several hours from the arrival time recorded for the same patient in the ED system. Some facilities record the arrival time as the ED arrival time, and others as the time of admission to the ward. Episodes were only included if the ED and inpatient admission occurred at the same facility.

This data set excludes any ED episodes where the patient was not subsequently admitted. It also excludes any inpatient episodes that were not admitted from the ED. Some caution should be exercised in the interpretation of analyses formulated using databases created by matching processes such as that described above. The database is subject to all the standard data quality issues such as missing data and invalid and inaccurate records, as well as additional quality issues associated with merging of data including both incorrectly merged ED and inpatient episodes, and episodes that should have been merged not being identified as such based on the matching criteria.

We consider a time series of the average length of stay. The length of stay is defined as the total number of hours in the ED (arrival time to departure time) and as an inpatient (episode start time to episode end time). The corresponding time series for people aged 60-74 years provides a useful comparison group for this analysis. Change to the difference between the two series may be attributable to CSRP if it assumed that CSRP reforms had no impact on the set of patients aged 60-74 years. However, this assumption may be questioned on at least two levels. Firstly, it is argued that the CSRP facilitates systemic (cultural) change that permeates throughout the entire hospital system. Thus the length of stay for 60-74 year olds may also have been reduced by the CSRP. Secondly, it is possible that an increased focus on the hospital stays of patients aged 75
and over may have diverted resources away from otherwise similar patients aged 60-74. If so, the length of stay of patients aged 60-74 may have been increased by the CSRP. These limitations need to be kept in mind when considering the appropriateness of the 60-74 year old comparison group.

Figure 50 shows the original and trend series for cardiovascular conditions. It is clear that the two series have recently converged. At the time when CSRP commenced (June 2005), the trend line for the 75+ age group was 45 hours higher than the 60-74 group. At December 2006, the difference was 28 hours, a reduction of 17 hours per episode. The majority (61%) of this change was due to a fall in the length of stay in those aged 75+. The remainder (39%) was due to an increase in the length of stay of those aged 60-74.

Figure 50 Average length of stay (hours in ED and as inpatient) for cardiovascular conditions (people aged 75+ and 60-74 years) – NSW

Figure 51 shows the original and trend series for respiratory conditions. As for cardiovascular conditions, the two series have recently converged. At June 2005, the trend line for the 75+ age group was 21 hours higher than the 60-74 group. At December 2006, the difference was 1 hour, a reduction of 20 hours per episode. The majority (79%) of this change was due to a fall in the length of stay in those aged 75+. The remainder (21%) was due to an increase in the length of stay of those aged 60-74.

Figure 51 Average length of stay (hours in ED and as inpatient) for respiratory conditions (people aged 75+ and 60-74 years) – NSW

Analysis by individual DRGs within the cardiovascular and respiratory groups (not included here) indicates no major differences between DRGs. Given that projects focusing on the elderly have only commenced implementation in the first half of 2007 it is too early to expect any impact (that may be attributable to CSRP) on length of stay for these groups of patients. We will repeat the analysis in our final report on the evaluation.
Changes in the time series for these two groups of patients may be due to changes in mix within each group, according to DRG categorisation. This is summarised in Table 3.

### Table 3  Tracer condition, mix of DRGs within each group

<table>
<thead>
<tr>
<th>Year</th>
<th>Respiratory DRGs</th>
<th></th>
<th>Cardiovascular DRGs</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Respiratory DRGs</td>
<td>Cardiovascular DRGs</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(% of total for each DRG and average cost)</td>
<td>(% of total for each DRG and average cost)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>E65B COPD W Catastrophic or Severe CC Not DC ($5,569)</td>
<td>E65A COPD W/O Catastrophic or Severe C Not DC ($3,358)</td>
<td>F62A Heart Failure and Shock W Catastrophic CC ($8,084)</td>
<td>F62B Heart Failure and Shock W/O Catastrophic CC Not DC ($4,035)</td>
</tr>
<tr>
<td>2001</td>
<td>48%</td>
<td>52%</td>
<td>16%</td>
<td>48%</td>
</tr>
<tr>
<td>2002</td>
<td>50%</td>
<td>50%</td>
<td>16%</td>
<td>45%</td>
</tr>
<tr>
<td>2003</td>
<td>48%</td>
<td>52%</td>
<td>17%</td>
<td>46%</td>
</tr>
<tr>
<td>2004</td>
<td>42%</td>
<td>58%</td>
<td>21%</td>
<td>46%</td>
</tr>
<tr>
<td>2005</td>
<td>40%</td>
<td>60%</td>
<td>23%</td>
<td>47%</td>
</tr>
<tr>
<td>2006</td>
<td>45%</td>
<td>55%</td>
<td>20%</td>
<td>53%</td>
</tr>
</tbody>
</table>

For both tracer conditions, the overall trend is a slight decrease in the proportion of patients with catastrophic or severe complications or co-morbid conditions (ie, less complex patients), but the percentage varies from year to year and the pattern is clearer for the respiratory DRGs. The pattern in the cardiovascular disease DRGs is for an increasing proportion of admissions for heart failure (from 64% at the beginning of the series to 73% at the end) and a decreasing proportion of admissions for unstable angina. These changes may be having some influence on the time series results and will be further investigated in our final report.
3.5 **Financial performance**

Two issues arose during interviews with managers in year 2 with regard to financial performance:

- The impact that seeking to achieve performance KPIs might have on financial performance.
- The financial sophistication of the health system.

There were some suggestions from those we interviewed that greater efficiency and/or clinical redesign may improve financial performance:

*You actually may take some pressure off the budget by allowing the system to deliver more care within the resources that exist by using them better, by cutting out the waste.* (A)

Perhaps the standout example of this is the LEAD project in Greater Southern AHS which is credited with assisting that AHS to come in on budget in 2006/2007. More typically though managers described a situation of trying to meet both access KPIs and budget as one of putting additional pressure on their financial position:

*Maintaining your waiting list does come at a cost of budgetary deficits.* (A)

*To meet these surgery and emergency targets you have to invest a certain amount of dollars and that can put pressure on the finances.* (A)

*So the driver has been that we must get the wait list to zero. And they've given us some funding. So the clinical redesign project worked beautifully. We designed an efficient system. We did it as efficiently as we could, and we got our long waits down to zero. But it's been financially ... it's not been tied. If I'd been worried about finances, they were never ... even with the clinical redesign making the surgery quite efficient it wasn't funded. It was partially funded. So we just did it. And the net result is we got a $XX million deficit ... I'm assured that I'll be given sufficient funds, and sometimes that boils down to authority to overspend, to enable us to put on additional lists to do that elective work.* (H)

*The budget takes a hell of a battering in order to meet the targets.* (H)

*Every day for the past two months I've gone into the day with XX what we call surge beds, okay, but I've got XX beds open that I have no funding for and no staffing for and shouldn't have open.* (H)

*My budget's a mess, don't even go to the budget ... I did not come in on budget last year, no I didn't.* (H)

Of the hospital general managers we interviewed whose financial budget was raised during the course of the interview, none said they came in on budget for 2006/2007. In part, we think this may be due to the (perfectly understandable) practice of chief executives ‘holding back’ some funds when allocating budgets to hospitals to meet unanticipated financial demands during the course of the year. Some suggestions from hospital general managers to address this situation included closer links between the financial and access KPIs and greater attention to economic evaluation:

*The major problem is that the funding signals have got nothing to do at all with process improvement. They just don’t match. All good management theory puts in place payment to match outcomes and that’s not how things work in health ... One of the things that worries me about the Department are the financial indicators. They just don’t exist. They exist at a very broad macro level but I can’t understand how you can expect managers to run a business when you don’t expect them to be financially literate. There’s no financial discipline. There’s budget discipline but there’s no financial discipline. And you can’t manage anything without proper fiscal discipline and financial nous and understanding of inputs and outputs. That’s why you exist in such a strange fairyland sort of place, because nobody talks about reality.* (H)

*I don’t know of any discussions around true efficiency measures ... cost benefit analyses and debates. For example, you can potentially come up with the wrong solution if you don’t ask all of the*
correct questions. And, it might be the case that creating an EMU in some locations decongests your ED and improves your KPI performance on your ED, but if you don’t make sure that the EMU operates absolutely efficiently … You might have, in fact, introduced a financial inefficiency into the totality of your organisation’s performance. There’s a lot more cleverer people out there running hospitals than me, and probably every one of them that’s introduced a EMU has not introduced a financial inefficiency to their organisation, but I’d like to bloody well hear a debate about it. (H)

3.6 Project-level key performance indicators

Each CSRP project has a number of KPIs that form part of the monthly performance reporting to the Health Department. Typically, each project has 3-4 KPIs. Some of these are the same as the KPIs for the overall CSRP e.g. EAP and triage times, but some are project-specific e.g. operating theatre utilisation, operating theatre cancellations, % of care plans within 72 hours of admission (for a mental health project), % of day surgery, patients with an expected date of discharge and EAP for mental health clients. The number of these KPIs for each AHS varies from 8 (for Greater Southern) to 37 (for South Eastern Sydney Illawarra), the difference largely explained by the number of projects in each AHS. In Greater Southern 6 of the 8 KPIs were in the one clinical area (surgery). The percentage of these KPIs for which the target was met or exceeded in each month of the financial year 2006/2007 are shown in Table 4. Caution needs to be taken in interpreting these results because of the simple distinction between meeting and not meeting the target for each KPI i.e. not achieving or exceeding the target by a large margin counts the same as missing it by a small margin (for the purposes of the data presented in the table).

It can be seen that across the year the percentage of KPIs that met target in each AHS was less than 50% almost all the time (except for Greater Southern) and only 34% of the targets for all the KPIs were met across the state for the whole year. The percentage met by AHS ranged from a low of 26% (North Coast and Northern Sydney Central Coast) to a high of 43% (Greater Southern) and 44% (Greater Western). The target date by which the KPIs should be met does vary by project, with some of those dates extending into 2007/2008, so the fact that a particular target was not met in 2006/2007 may mean there is still time for the project to achieve what it set out to achieve. However, across all the projects, it would be reasonable to expect a general trend whereby the percentage of KPIs that were meeting target increased over time, but this is not the case. In general, the target is either consistently met, or consistently not met, across the 12 months, or there is a month-to-month variation of met/not met.

Table 4 % of project level KPIs that met target, by area health service

<table>
<thead>
<tr>
<th></th>
<th>Jul</th>
<th>Aug</th>
<th>Sept</th>
<th>Oct</th>
<th>Nov</th>
<th>Dec</th>
<th>Jan</th>
<th>Feb</th>
<th>Mar</th>
<th>April</th>
<th>May</th>
<th>June</th>
<th>Av</th>
</tr>
</thead>
<tbody>
<tr>
<td>GS</td>
<td>38</td>
<td>50</td>
<td>38</td>
<td>38</td>
<td>38</td>
<td>50</td>
<td>50</td>
<td>38</td>
<td>50</td>
<td>38</td>
<td>50</td>
<td>38</td>
<td>43</td>
</tr>
<tr>
<td>GW</td>
<td>41</td>
<td>47</td>
<td>35</td>
<td>35</td>
<td>35</td>
<td>41</td>
<td>47</td>
<td>53</td>
<td>76</td>
<td>41</td>
<td>44</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HNE</td>
<td>19</td>
<td>29</td>
<td>29</td>
<td>41</td>
<td>32</td>
<td>42</td>
<td>26</td>
<td>37</td>
<td>37</td>
<td>32</td>
<td>40</td>
<td>31</td>
<td>33</td>
</tr>
<tr>
<td>NC</td>
<td>38</td>
<td>20</td>
<td>20</td>
<td>38</td>
<td>38</td>
<td>38</td>
<td>15</td>
<td>27</td>
<td>0</td>
<td>20</td>
<td>33</td>
<td>27</td>
<td>26</td>
</tr>
<tr>
<td>NSCC</td>
<td>36</td>
<td>32</td>
<td>23</td>
<td>23</td>
<td>23</td>
<td>23</td>
<td>32</td>
<td>23</td>
<td>23</td>
<td>27</td>
<td>14</td>
<td>26</td>
<td></td>
</tr>
<tr>
<td>SESI</td>
<td>33</td>
<td>25</td>
<td>36</td>
<td>39</td>
<td>39</td>
<td>46</td>
<td>46</td>
<td>46</td>
<td>46</td>
<td>35</td>
<td>33</td>
<td>37</td>
<td></td>
</tr>
<tr>
<td>SSW</td>
<td>32</td>
<td>20</td>
<td>40</td>
<td>28</td>
<td>36</td>
<td>36</td>
<td>32</td>
<td>20</td>
<td>17</td>
<td>29</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SW</td>
<td>20</td>
<td>20</td>
<td>30</td>
<td>38</td>
<td>38</td>
<td>56</td>
<td>41</td>
<td>41</td>
<td>40</td>
<td>46</td>
<td>44</td>
<td>29</td>
<td>38</td>
</tr>
<tr>
<td>NSW</td>
<td>30</td>
<td>31</td>
<td>30</td>
<td>34</td>
<td>28</td>
<td>38</td>
<td>33</td>
<td>37</td>
<td>36</td>
<td>37</td>
<td>38</td>
<td>28</td>
<td>34</td>
</tr>
</tbody>
</table>

GS Greater Southern; GW Greater Western; HNE Hunter New England; NC North Coast; NSCC Northern Sydney Central Coast; SESI South Eastern Sydney Illawarra; SSW Sydney South West; SW Sydney West

Another way of examining the project-level KPI data is to compare performance at the end of the year (2006/2007) with the level of performance at the beginning of the project, referred to in the monthly performance reports as benchmark / initial data. This is summarised in Table 5
Table 5  Year end performance for 2006/2007 compared to benchmark / initial data for project-level KPIs

<table>
<thead>
<tr>
<th>KPI improved</th>
<th>KPI not improved</th>
<th>No benchmark data available</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>GS</td>
<td>57.1%</td>
<td>21.4%</td>
<td>100.0%</td>
</tr>
<tr>
<td>GW</td>
<td>22.2%</td>
<td>22.2%</td>
<td>100.0%</td>
</tr>
<tr>
<td>HNE</td>
<td>55.0%</td>
<td>25.0%</td>
<td>100.0%</td>
</tr>
<tr>
<td>NC</td>
<td>37.5%</td>
<td>31.3%</td>
<td>100.0%</td>
</tr>
<tr>
<td>NSCC</td>
<td>27.3%</td>
<td>27.3%</td>
<td>45.5%</td>
</tr>
<tr>
<td>SESI</td>
<td>59.5%</td>
<td>14.3%</td>
<td>26.2%</td>
</tr>
<tr>
<td>SSW</td>
<td>60.7%</td>
<td>17.9%</td>
<td>21.4%</td>
</tr>
<tr>
<td>SW</td>
<td>21.1%</td>
<td>42.1%</td>
<td>36.8%</td>
</tr>
<tr>
<td>NSW</td>
<td>46.5%</td>
<td>23.5%</td>
<td>30.0%</td>
</tr>
</tbody>
</table>

Interpretation of the data in Table 5 is somewhat problematic for two main reasons:

- For 30% of the KPIs there are no benchmark data to compare against and hence no way of knowing whether these KPIs would fall into the ‘improved’ or ‘not improved’ categories if such data were available.
- The benchmark / initial data is unique to each project with some projects starting with a low baseline level of performance, and hence a greater opportunity to improve than other projects that start with a relatively high level of performance.

The two poorest performers (NC and NSCC) based on the data in Table 4 also do not show up well when the data is analysed in this way but for other AHSs there is a mixed picture based on the data in the two tables.

Another source of project-level data is the survey of projects conducted in Year 1 and Year 2 of CSRP. The survey requested examples of improvements to performance and the responses are summarised in Table 6.

Table 6  Improvements in performance identified by projects

<table>
<thead>
<tr>
<th>Improvement in performance</th>
<th>No. of projects</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improved access for emergency admissions</td>
<td>8</td>
</tr>
<tr>
<td>Reduced lengths of stay</td>
<td>5</td>
</tr>
<tr>
<td>Improved links between services e.g. referrals</td>
<td>4</td>
</tr>
<tr>
<td>Improved access to surgery</td>
<td>3</td>
</tr>
<tr>
<td>Increased use of Expected Date of Discharge</td>
<td>3</td>
</tr>
<tr>
<td>Improved triage times</td>
<td>2</td>
</tr>
<tr>
<td>Improved turnaround time for common blood tests in ED</td>
<td>1</td>
</tr>
<tr>
<td>Reduction in delays (in ED) to get naso-pharyngeal aspirate results</td>
<td>1</td>
</tr>
<tr>
<td>Prevention of access block by using a bed capacity escalation plan</td>
<td>1</td>
</tr>
<tr>
<td>Reduced frequency of escalation of bed capacity issues</td>
<td>1</td>
</tr>
<tr>
<td>Reduced time spent by mental health admissions in ED</td>
<td>1</td>
</tr>
<tr>
<td>Improve off-stretcher times</td>
<td>1</td>
</tr>
<tr>
<td>Reduced cost of nurse specials in ED for mental health clients</td>
<td>1</td>
</tr>
<tr>
<td>Nurse activated discharges</td>
<td>1</td>
</tr>
<tr>
<td>Improvement in performance</td>
<td>No. of projects</td>
</tr>
<tr>
<td>-----------------------------------------------------------------</td>
<td>-----------------</td>
</tr>
<tr>
<td>Improvement in patient processing into the operating theatres</td>
<td>1</td>
</tr>
<tr>
<td>Staff achieving performance targets (Ambulance Service)</td>
<td>1</td>
</tr>
<tr>
<td>Improved compliance with call taking processes (Ambulance Service)</td>
<td>1</td>
</tr>
<tr>
<td>Not answered</td>
<td>4</td>
</tr>
</tbody>
</table>
4 Safety and quality

4.1.1 Performance, safety and quality

In our evaluation, and the language of the Health Department, the KPIs used in the CSRP are framed in terms of performance, quality and safety: CSRP started with performance, is now increasingly focussing on safety and has undertaken work to incorporate patient experiences (quality), although not yet integrated into a coherent framework. It is important to get the right balance between these components (Bate and Robert 2006; Bate and Robert 2007).

This categorisation naturally prompts the question, which we raised in our first report, as to whether the CSRP has struck the right balance between performance, safety and quality. We argued that one cannot say that a particular health care system has ‘improved’ when performance (efficiency) has improved but not safety or quality. Improvement strategies need to move forward on all three fronts.

This issue is illustrated by the responses we received from the survey of projects which asked the question ‘to what extent have performance, quality and safety been improved as a result of the project?’ The responses are summarised in Figure 52.

Figure 52 Extent of improvement in performance, quality and safety

Most projects identified either moderate or significant improvements in performance and quality. For safety, most projects identified some or little improvement. For both quality and safety many projects did not know whether there had been any improvements. In part, this would be due to the absence of a systematic approach to project level evaluation but it also reflects the reduced emphasis on quality and safety compared to performance.

An alternative way of looking at this issue is from the perspective of the framework for managing the quality of health services published by the Health Department in 1999 and reissued as a policy directive in May 2005. The framework is based on six dimensions of quality (also referred to as performance areas) – safety, effectiveness, appropriateness, consumer participation, access and
efficiency (NSW Health 1999) and is entirely consistent with the approach taken in CSRP: all the CSRP KPIs would be considered quality indicators. The Clinical Excellence Commission uses the framework as the basis for its work (Clinical Excellence Commission 2006) and an additional framework – the NSW Patient Safety and Clinical Quality Program – is now shaping the system (NSW Health 2005). We believe there would be some value in moving towards a common framework, rather than having three competing (and confusing) frameworks.

Many of the senior managers we interviewed commented that performance is linked to safety and quality. That is, by improving performance, then there are improvements in safety and quality:

*I think improvement in efficiency’s directly led to improvements in performance, that’s quality and safety.* (A)

*Clinical redesign is very closely integrated with quality and safety and I don’t think you can break them up.* (H)

Other managers felt that there was an emphasis on performance rather than quality and safety, especially at the beginning of the program, but this emphasis is starting to change:

*We’re also building much more strongly now, quality and safety parameters, so there are safety KPIs coming into the measures* (D)

*What we’re trying to do here is to put some KPIs around quality and safety as a check and balance on the access ones* (D)

This is reflected in some safety indicators that are now included in the monthly health system performance reports produced by the Demand and Performance Branch of the Health Department:

- IIMS notification by month (total incidents and clinical incidents)
- Incorrect procedures in operating theatres
- Incorrect procedures in imaging, radiation oncology and nuclear medicine
- Falls in hospital resulting in death

A few managers pointed out the need to rely on other systems to monitor quality and safety:

*… the more efficient your systems generally, the better they are. We do have to be very careful about the issues like readmission rates and that people aren’t being discharged and driven out when it’s not in their interests and not clinically indicated.* (A)

*We now have a pretty good idea of what their quality problems are in this system, you know, based on good evidence from the IIMS system now and from the RCA processes.* (A)

But others felt that there are not adequate systems in place for measuring quality:

*Am I seeing a range of quality indicators at the moment that give me confidence that there is safe care happening in the facilities or that I’ve got a range of KPIs coming to me that flag those areas where there are questions around the quality of care, the answer’s no.* (A)

*It is assumed, if you’ve met the KPI, it’s changed for the better. I don’t think there’s any checks and balances to really go back and look at the quality. Safety would be reviewed in terms of exception, that if something unsafe happened, it gets reported* (H)

We commented in Section 5.1.4 that senior managers generally view CSRP as building on what has gone before, with much of the language one of continuous improvement,

### 4.1.2 Patient and carer experiences

Focusing on patients, facilitated by the use of terms such as ‘patient journey’ and ‘patient experiences’, is a fundamental component of the CSRP model and projects are obtaining
feedback on patient and carer experiences along the patient journey. A patient journey refers to the process or progressive steps taken by a patient as they received health care whereas patient experience describes how the patient perceived the journey, including the quality of care and communication they received along the way.

In our first report we said that in addition to any benefits to patients that may accrue, two main impacts on staff were emerging - use of the ‘patient journey’ concept provides a mechanism for different departments or groups of health professionals to work together on neutral ground and it also encourages a patient-perspective on the access KPIs, particularly in EDs. The strong focus on patient experience in the CSRP gives it a distinctive quality, marks it out from other redesign programs and facilitates clinician engagement. The concept of patient experience has strong support from the HSPIIB within the Health Department, but even within the Department there is recognition that there is still some way to go to getting it accepted:

Even though there’s talk about the patient experience with some of the redesign stuff, a lot of what people see about redesign is KPIs, and they don’t see that the KPIs are helping trying to measure what’s happening to the patient, and we need to talk about the patient a little bit more. (D)

CSRP has developed a qualitative approach to interviewing patients and carers and analysing their experiences using nine dimensions, based on the work of the Picker Institute - fast access to reliable healthcare; effective treatment delivered by trusted professionals; involvement in decisions and respect for preferences; clear, comprehensive information and support for self care; attention to physical and environmental needs; emotional support empathy and respect; involvement of and support for families and carers; coordination and continuity of care; and smooth transition to and support for self-care. The method involves a semi-structured interview with patients and carers who have experienced a particular patient journey within the previous month in their own home or venue of their choice by a suitably skilled member of a CRU or a trained interviewer. The patient and carer experience methodology is designed to complement existing sources of data currently used by health services e.g. incidents (from IIMS reports), complaints and involvement of patient and carers on working groups.

The CSRP Program Office has coordinated the delivery of workshops, presentations and training sessions. In addition, there are two presentations on the website reported as very easy to follow and sufficiently detailed to enable self paced learning. One presentation is on ‘improving patient and carer experience’ and the second on ‘training in interviewing and communication skills’. There is an online library of about 170 stories about patient and carer experiences on the ARCHI web site with the facility to review the stories using a key word search function to search by various categories e.g. patient aged 65+; patient with chronic illness; patient requiring surgery (booked and emergency); stories with positive aspects and stories with negative aspects: The positive and negative aspects of care include access to care; respect for patients values, coordination and integration of care; information and education; transition and continuity; physical comfort; emotional support and alleviation of fear and anxiety; involvement of family and friends; and nothing positive or negative about the experience. Each of the stories is documented under standard headings, with a summary box listing the key points for each story. There is an opportunity to comment on each story by participating in a discussion forum and completing a feedback form.

The patient and carer experience methodology is currently being trialed with 11 CSRP projects in seven AHSs, with a total of 167 patient and carer interviews conducted to date. We have been provided with a draft progress report (NSW Health 2007) on that work that identifies that the most positive aspects of patient and carer experience are:

- effective treatment delivered by staff you can trust
- fast access to reliable health care.

The most negative aspects identified by patients are:
clear, comprehensive information throughout the journey
physical comfort and a clean, safe environment
coordination and continuity of care.

All the projects reported that the methodology has been beneficial with comments such as ‘the process of interviewing the patients and carers is very beneficial and gives valuable insight into the consumer’s perspective on their experience’ and ‘staff who took part in the interviews found the process extremely rewarding and worthwhile and found that it provided a unique view of the business of health care’. The projects also gave recommendations to improve the methodology such as improving the usability of the ARCHI website. All projects listed a variety of strategies to acknowledge and disseminate the positive aspects of patient and carer experiences, including feedback at project team meetings; at reference group meetings and to the wider AHS.

The report gives an overview of the solutions developed from the patient and carer experiences and lists the implementation progress (for details see Appendix 4). The nature of the methodology (to use the results of the patient/carer interviews to inform the work of CSRP projects) means that it is difficult to isolate the extent to which solutions may have been developed in response to patient or carer experiences. In those cases where a solution appears closely aligned to comments by patients and carers it is difficult in some cases to work out from the description of the solution what exactly will be implemented e.g. patient needs assessed on an individual basis, transition out of community mental health to be agreed with patient and carer. There is still some way to go in implementing most solutions and the second round of interviews have either taken place only recently or are planned for the near future. The net result is that, at this stage, we are unable to make any comment about the impact the trial may have had, other than what we have noted above about the positive reaction from staff. It will be interesting to see what is learnt from the trial in year 3 of the CSRP. The draft progress report draws together the findings from the trial project sites and once completed will be disseminated across the health sector. In addition, the experience-based design methodology that provides for the direct participation of patients in co-designing services with staff is also being piloted and developed in EDs at Bankstown and John Hunter.

Of the three most negative aspects of the patient journey identified by patients and carers the solutions tend to focus on the patient information, coordination and continuity of care issues, rather than improving physical comfort and providing a clean, safe environment.

Another report, based on a smaller sample (87 interviews in three AHSs) of the same interviews, has been produced jointly by the HSPIB and the Clinical Excellence Commission (Ferry 2007). The report lists the clinical quality issues (both deliberately and inadvertently) revealed through the interviews. The report highlights a number of areas for improvement relating to the clinical quality and safety of care. These include: communication issues, clinical risk issues, workforce issues, ineffective coordination and continuity of care and lack of involvement of and support for families and carers.

Poor communication was highlighted in many of the stories, often causing anxiety and distress to patients. Clinical risks were experienced and reported by patients and include examples of falls risks, near misses and adverse events. There was a perception that there were not enough staff or staff were overworked, especially nursing staff. Ineffective coordination and continuity of care was ‘evidenced firstly by long waiting times for diagnostic and surgical procedures and access to consultant appointments, and secondly by confusion and delays relating to discharge arrangements and follow-up appointments’ (Ferry 2007, p 15). The report concludes with the challenge of how to aggregate and disseminate information derived from the interviews and to develop a mechanism through which to take action to directly improve the patient and carer experiences.
4.1.3 Patient Journey Study

The major program-level work to date on patient experiences has been conducted by Value Enhancement Management (VEM). Their first report ‘Patient Journey Study’ was completed in August 2006, and the second report has been circulated internally within the Health Department (VEM 2007). These reports have been commissioned by the Health Department to inform the ongoing design of the program.

The patient experiences reported in the second study are based on over 90 hour-long exploratory interviews conducted between June and August 2007 in 9 hospitals. The number of patients interviewed in total and/or by hospital was not recorded in the report.

In the first report, five hospitals in the survey were selected by VEM and the Health Department on the basis that they would reflect the experiences in hospitals prior to the implementation of CSRP and five on the basis that they would reflect experiences in hospitals post CSRP. Of the 10 hospitals selected, there are three surgery projects (23 hour admission), three emergency projects (triage 3), one mental health project, one aged care project, and two cardiology projects. The hospitals were then grouped and reported together as ‘Pre CSRP’ and ‘Post CSRP’ hospitals in the VEM report. In the second survey the same 10 hospitals were used. However in the second report the hospital conducting a mental health project was excluded but will be documented in an individual report.

The second report compares the findings of two successive years of evaluation – 2006 and 2007 across these 9 hospitals. The report ‘analyses the gaps and opportunities created by the difference between what is perceived to be important to the Patients and Carers in their Patient Journey and what CSRP is perceived to be contributing (how it performs) in terms of improvement in the perception of the Patient Journey’ (p4).

The patient journey is described as six key phases: Getting Ready for Hospital, In Hospital, Clear Health Care Information, Scheduling – The Way Forward within the hospital, Patient and Carer Respect, The Next Steps: the Journey Home. The patient questionnaire, results and recommendations have been organised around these six phases, with the 9 hospitals being grouped together and data reported for each phase. In addition, the results have also been reviewed by the four programs included in the sample: 23-hour Admission (3 projects), Emergency - Triage 3 (3 projects), Cardiology (2 projects); and Aged Care (one project).

A Perception Index (PI) was developed by VEM to establish the impact of the CSRP on the perceptions of patients and carers, and compares the measures calculated for the current Year 2 study against the baselines (Perception indices) established in Year 1 (2006).

Year 2 Patient Journey Evaluation findings (VEM 2007) indicate ‘some areas of significant improvement, and while not all areas improved, the balance of opinion was that the Patient Journey is improving. The 5 factors (out of 40 tested) that improved most in Year 2 were as follows:

- Clear information about what would happen next"
- “Medication you needed at the time of your departure”
- “Notice of any cancellation or rescheduling or your appointment”
- “Knowing whom to talk to if you weren’t happy with your care"
- Medication required (while in hospital)” (p4-5)’.

In Year 2 of the Patient Journey Evaluation, not all things improved (p8). Some notable deterioration in the Patients’ perceptions of their Journey occurred in the area of communications, “Clear Healthcare Information” and Patients being happy with their treatments while “In hospital”.
The four areas where the gaps got larger, where what was perceived as important to Patients but the delivery of the care or service did not meet their expectations were as follows:

- ‘Knowing if you would have any expenses’, especially if there were unexpected ones.
- ‘Directions to the right place within the hospital’ which in some cases caused unnecessary walking and delays.
- ‘There was an opportunity to clarify treatment required’ this was particularly a problem for Aged Care producing the largest gap in Year 2 findings.
- ‘A report on your treatment to you GP’ this was the biggest problem in relation to Cardiology Patients in Year 2 followed by 23-hour Admissions (p9).

The second report also includes findings that are not considered to be directly impacted by CSRP such as parking or mixed gender wards.

The second VEM report categories and analyses findings based on six patient journey phases and four clinical programs. The patient experiences report (NSW Health 2007) is based on nine dimensions. Issues that are identified as priorities in both reports are the need to improve communication and provide clear health care information.

### 4.1.4 NSW Health Patient Experience Survey

NSW Health Patient Experience Survey is the new statewide patient survey that has been developed to gain information from users of health care services about their level of satisfaction with the services provided, and to provide a high level measure of patient satisfaction that will enable benchmarking exercise to occur. The Health Department has contracted Ipsos Australia Pty Ltd in conjunction with NRC+Picker to conduct the statewide survey over a three year period. The survey includes the eight AHSs and the Children’s Hospital at Westmead. The emphasis is on measuring the extent to which events that should happen in the health service do happen and will highlight stronger and weaker areas of the system. There are nine patient categories, which each have their own custom-designed questionnaire based on the eight dimensions of patient–centred care identified by Picker. The patient categories have a good ‘fit’ with many of the areas that have been a focus of CSRP e.g. surgery, emergency department, mental health. The first survey has already been distributed to randomly selected patients and although the results (due in November 2007) will not assist in evaluating any potential impact of CSRP (because there are no pre-CSRP results to compare with) the intention to repeat the survey annually will provide a source of data to feed into future redesign work.

### 4.1.5 Incident reporting

The objective of the Incident Information Management System (IIMS) is to provide an electronic system that records incidents in four categories - clinical (patients), complaints, staff/visitor/contractor (OH&S) and property/hazard/security. Implementation commenced in November 2004 and was completed in May 2005 (Clinical Excellence Commission 2006).

The Patient Safety and Clinical Quality Program have produced three reports on incident management in the NSW public health system: 2003/2004; 2004/2005 and 2005/2006. The third report focuses on ‘sentinel event’ (SAC 1) data and shows that there has been a rise in the notifications of serious incidents. Communication remains a major contributing factor to these incidents (NSW Health 2006).

The Clinical Excellence Commission is involved in monitoring the effectiveness of the implementation of the NSW Patient Safety and Clinical Quality Program and has established a Patient Safety Unit which is responsible for the analysis of statewide clinical data (including IIMS).
to identify trends and recommend preventative action to reduce the likelihood of adverse events, increase patient safety and improve clinical quality within the NSW health system.

The CEC released a report in December 2006 which provides an overview of the first complete year of statewide IIMS data, with a focus on clinical notifications. The report shows that since May 2005 notifications have stabilised at between 9,000 and 12,000 a month and that around 70 per cent of notifications are clinical in nature. The majority of notifications are of low severity with the majority of ratings being SAC 3 or SAC 4 (85 per cent combined). Less than 1 per cent of notifications were of extreme severity (SAC 1). In 2005/2006 the three largest categories of incident type were falls, medication errors and clinical management incidents. Clinical management incidents can be classified as either ‘clinical process/treatment/procedure’ or ‘clinical administration/logistic/communication process’ and occurred most frequently in emergency services (Clinical Excellence Commission 2006).

In our evaluation plan we flagged that data on incidents would be difficult to interpret and that quality improvements, as well as any unintended or unanticipated negative effects on quality or level of service, would be more likely to be identified at the project level, in response to the specific initiatives of each project, than at the level of area health services, groups of projects or groups of hospitals. Based on the available results from IIMS some additional issues arise:

- Data from IIMS is only available from mid 2005, about the same time CSRP started, so there is no pre-CSRP data to compare with.
- As with any such system the quality of the data requires some improvement. For example, the largest category of clinical process/treatment/procedure problems is the ‘blank’ category i.e. data not entered.
- It would be very difficult, if not impossible, to unbundle the impact of CSRP from the impact of other initiatives. For example, there are a high number of falls, many falls involve elderly people and hence projects focusing on improving the patient journey of elderly patients might have some indirect impact on the rate of falls. However, a more direct impact is likely to come from a falls prevention program, of which there are many in existence.

At this stage we are unable, with any confidence, to identify any particular incident reported in IIMS that would have a strong enough link to a large enough cohort of CSRP projects over a sufficient period of time to be used as a program-level indicator of quality and safety. There are some incidents that have the potential to become useful in this regard e.g. aggressive incidents in EDs or complaints about communication problems, and we will work with the Quality and Safety Branch of the Health Department and the Clinical Excellence Commission over the third year of the CSRP on this issue.

4.1.6 Project-level quality and safety improvements

As a result of surveying projects, reviewing project-level documentation (including some project-level evaluations), and examining progress in attaining project-level KPIs we have identified some project-level improvements to quality and safety (with the caveat that this excludes indicators of efficiency such as EAP and triage times which, from the perspective of the quality framework, would be considered quality indicators):

- Increase in the number of patients with a discharge plan and/or care plan (two projects)
- Increase in number of patients with discharge risk screening (one project)
- Development of management plans for frequent attenders to ED (one project)
- Follow up of ‘did not waits’ in ED (one project)
- Reduction in the number of ‘did not waits’ (two projects)
More active and regular review of long-stay patients in inpatient unit (one project)

Increased staff satisfaction (one project)

Medical handovers in ED changed to ensure that there was someone available at all times to continue reviewing patients (one project)

Staffing in pathology changed to ensure high priorities attended (one project)

Increase in post-surgery review of joint replacements (one project)

Reduction of ‘routine’ testing of nasopharangeal aspirate in children requiring isolation, with testing limited to the ‘at risk’ population (one project)

Improvements do not necessarily fit neatly into the categories of performance, quality and safety and these examples are no exception. The fact that the number of patients with a discharge plan or a discharge risk screening has increased may not mean an improvement in outcome but it is reasonable to see these as process indicators of quality.

4.1.7 The development of CSRP

When CSRP commenced the focus was very much on improving performance (efficiency), particularly in the areas of EDs and elective surgery. The work of CSRP at both a program and project level was supported by a robust performance management system. As the program has evolved there has been recognition of the need to take more of a safety and quality perspective, as evidenced by the work on patient experiences and inclusion of safety and quality indicators in the reporting of performance. Safety and quality indicators are much more difficult to develop and implement than the range of KPIs included in the CSRP but we would encourage work in this direction to continue. The quality framework that has now been in operation within the Health Department for eight years does not have the same impact as the performance management approach that has been part of the current reform strategy but does provide a useful way of thinking about some of the broader quality and safety issues e.g. appropriateness of care. We would see value in aligning the approaches taken within CSRP, the Quality Framework and the more recent Patient Safety and Clinical Quality Program to ensure a consistent understanding of what the health system is trying to achieve in terms of safety and quality.
5 Key success factors

5.1 The program change model

There are many different aspects to the change model being used as part of CSRP, most of which are reported in this section of the report. However, some aspects have been included elsewhere i.e. patient experiences (Section 4.1.2) and use of data (Section 5.9)

5.1.1 External partners

The external partners have been a key feature of the CSRP. In our first report we said that, in general, those who have worked closely with external partners have enjoyed the experience, learnt a lot and valued the different perspective they bring to the health system:

The program would not be where it is now without the external partners – they have been integral to the success so far. (A)

They pushed us quite a bit which was probably what we needed. There's a lot of skilled people in the hospital who can look at problems now in an entirely different light. (P)

The VEM management participation study concluded that the external partners ‘were credited with helping to maintain focus and drive results at the facility level’ (VEM 2007, p 40), with near universal praise for their work. Our own interviews found that the attributes and qualities of individual consultants are more significant than the particular external partner they work for, as experiences of the same consulting firm varied across the health system:

There was a comment about the variability of the consultants through clinical redesign, that some of them were quite skilled at working with the teams on the ground and they really were about change agents and others really got the staff's back up because it was a bit like telling them how to suck eggs, it was. (D)

I would certainly say being fussy about the consultants that you're going to work with and then getting the right players around, paying attention to composition of the team, is really important. (H)

Interviews with senior managers in year 2 generally supported the role that the external partners have played in CSRP with comments such as

They had top quality people, good methods, and they had the right approach to staff in that they engaged them and they basically used their brains, their ideas, to make this work. (A)

The external resource brought, frankly, a level of rigour around the process here that I've never seen in the quality stuff before. (A)

Participants also identified additional qualities, including critical thinking, project management skills and acting as a catalyst:

… be a bit of a catalyst, get change started and to also assist … and drive the processes of change through so that they’re done within a defined period rather than just meandering along. (A)

I think the biggest thing that the external consultants brought to the table was not only their critical thinking and their critical ability to be able to look at problems and compartmentalise from that and make it easier for people to see a problem and solution, their biggest skill was project management, which very few of my middle managers and directors have any skills in. (H)

These comments are consistent with the findings of research into the successful use of consultancy. One of the main reasons clients use external consultants is for momentum, i.e. the extra resource they provide and their ability to focus on the problem, rather than attempting to do this in addition to their ‘normal’ jobs as people within the client organisation often do (Czerniawska
2002). The demand from clients for fast and efficient solutions has ensured consultants apply project management to all their projects. In terms of Czerniawska’s (1999) typology of consultancy, the consultants used here brought with them process-based expertise, defined as ‘the skill to bring about a change in a client’s business, which may range from a simple ability to facilitate management teams to being able to facilitate large-scale change’ (Czerniawska 1999), her other categories consisting of analytical expertise (raw brainpower) and experience (having previously carried out similar projects), the latter being a factor in the use of external partners for CSRP.

Consultants’ ability to provide an independent point of view and to act as an advocate was appreciated by many participants:

The main thing they bring to it is that the workers see them as being independent and objective and they can whinge about management to them and then they see something happen. So that’s their positive. (H)

There’s one very, for me, very important aspect of clinical redesign, (external partners) have access to the area, and they have access to the department of health and to the minister. They can mount arguments that I can’t mount. They have voices, able to voice issues at very high levels and that to me, is one of the best values of clinical redesign. (H)

This is consistent with the findings from the work of VEM which found that ‘several stakeholders welcomed the ‘fresh eyes’ and ‘new skills’ brought by the external consultants, their different perspectives have helped broaden the perspectives of key CSRP managers’ (VEM 2007, p 58).

However, some of those involved in projects (in year 1) felt that some external partners came with their own particular ‘bag of tricks’ and try to lead the solutions in that direction:

I think a lot of it was all premeditated. I think really that they (the external partners) came with what solutions they wanted … I think it was very cleverly directed to the outcomes that they already had in their head before they came. (P)

This concern was echoed in some of the comments by senior managers in year 2:

On the aged care project we actually had to argue to get some of our own flavour and issues into the product, and for some of the creativity to be recognised, rather than some preconceived and digested solutions … the external partner team lead were not very interested in framing our project around the patient experience. Now, that surprised me. (H)

Initially we were not happy with the project. We said what we wanted and they didn’t deliver. They have their own view and there was some very unhappy staff here who felt that the external partners failed to listen to the people that actually work here, that they came in with preconceived notions and an attitude of we knew better. (H)

There were some interviewees (at all levels) who questioned whether use of the external partners represented value for money, either by saying they did not think they were or by simply raising doubt about their value:

It is not viewed that the consultant approach has been a value for money component of all of this. There’s a general view that the additional resources, in the main, were required but … people aren’t sure whether that bit of it was really worth the money. (D)

What emerged from the interviews, in both years, was a real sense that working with the external partners involves a delicate balancing act. The focus of their work, particularly in the early projects, was very much on diagnosis and solution design. This, and the ‘disconnect’ between solution design and implementation that we described in our first report, may well have contributed to the situation whereby once the partners leave, progress can start to slow down:

I think we’re seeing some evidence now that the consultants come in, they do their bit, they go away and slowly things regress to the way they were… not always, but we’re seeing enough of that to be troubled. (H)
Whilst you've got somebody who has got those skills and hold you to them, and look at realistic time frames, it works well. Once they move out of it, that driving force tends to fall over. (H)

This results in a natural temptation to engage the external partners for longer periods of time to assist with implementation, something that is occurring in the more complex, area-wide, projects in year 2. This can then raise the issue of ‘who owns the project’:

If there continues to be involvement by the external partners to almost what is a telepathic line, people start to lose interest because they don't have ownership of it. (H)

Unless you've actually along the way engaged the team in such a way that the team feels some ownership, you'll see the results unravel not long after the consultants are out the door. (H)

In terms of sustainability, it is important to ensure that knowledge and skills, whether these are technical or process-based, are transferred from consultant to client. Previous research has indicated that having no more than 25% of the team made up of consultants helps to facilitate this process and that ‘skills transfer is one of the most important benefits of using consultants, because it gives greater capability in the future’ (Toppin and Czerniawska 2005). These researchers warn that most clients and consulting firms only pay lip service to the ideal of skills transfer but do little to achieve it, and that if poorly managed, ‘consultants can strip away more value than they bring and promote dependency on consulting’. It is important therefore not to focus only on the immediate benefits the consultants bring in terms of their expertise and momentum, but also to ensure that key skills and knowledge are brought in-house. One way to do this, as suggested in the interviews, is:

Down the track I've got to find one or two people, two or three people in-house, who are just good project managers, facilitators, who sit back and they have the ability, to hand-hold people through it. (H)

If the forward momentum is to be maintained, these on-the-ground specialists are likely to need wider institutional and community support and development extending beyond the boundaries of their immediate work organization. For example, one innovation that has been a great success in the UK has been the establishment of an Academy for service improvement (SI) leads that has brought together SI specialists from ten different areas of the NHS to share knowledge and experiences about their local programs for service transformation. Initially run under the auspices of the NHS Institute and McKinsey’s, this has now evolved into a voluntary, and largely self-organized, and highly energized community of practice (Bate & Robert, 2007).

One issue to which we return in the final discussion is whether the centrality of external consultants in the CSRP approach may have contributed unwittingly to improvement outcomes that have been more incremental than transformational in their impact. Recent empirical research has concluded (or rather confirmed) that consultants (despite the image they often try to convey) are not particularly innovative or leading edge in their ideas but tend to repackage and recycle conventional and well established improvement knowledge and techniques – one reason why people often feel ‘comfortable’ and aligned with them and their thinking (as has been the case with the CSRP). The argument here is that one cannot expect to have ‘large scale’ transformational outcomes when relatively conventional and routine ‘transactional’ service redesign methods are being deployed. On the other hand, the increasing piloting of more innovative, ‘cutting edge’ approaches as CSRP continues to unfold, such as experience based design, does at least begin to open up the possibility of more transformational outcomes and a ‘step change’ in quality (in this case potentially big changes in patient and users’ experiences of services).

Customer satisfaction and relationship performance of external partners

At the completion of each work order or major milestone, stakeholders from the Health Department and relevant area health service are surveyed and asked to rate the performance of the external partner according to customer satisfaction (which includes 16 items) and relationship performance (6 items). The rating is normally undertaken by four people from the Health Department and four people from the area health service. Each item is rated on a scale of 1 (strongly disagree) to 5 (strongly agree).
Some work orders cover more than one project. The results from 20 of these surveys have been made available to us and the projects covered by these surveys (34 in all) are listed in Appendix 3.

In Table 7 the 22 items are ranked according to the average score (by area health service staff) across all 20 work orders. Whilst the range from lowest to highest score is relatively small it should be noted that, although the range of possible scores on each item is 0-5, it is quite uncommon for any item to be scored less than 3.5. Interestingly, two of the lowest rated items were ‘the team had the appropriate mix of skills’ and ‘the team had the appropriate mix of experience’. There has been very little change to the average scores from those reported in our first report, with almost all categories either remaining unchanged or reducing by 0.1 or 0.2.

<table>
<thead>
<tr>
<th>AHS Average score</th>
<th>DOH Average score</th>
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<tbody>
<tr>
<td>Their management of the work order was professional</td>
<td>4.3</td>
</tr>
<tr>
<td>The EP effectively engaged with CE and executive / DDG and their executive</td>
<td>4.2</td>
</tr>
<tr>
<td>The team demonstrated high levels of commitment to achieving our goals</td>
<td>4.2</td>
</tr>
<tr>
<td>The EP participated in the development of solution/process and implementation</td>
<td>4.2</td>
</tr>
<tr>
<td>The EP actively participated within the CSRP Relationship Council</td>
<td>4.2</td>
</tr>
<tr>
<td>The methodology adopted was effective</td>
<td>4.2</td>
</tr>
<tr>
<td>The team worked well with the CRU, project team and clinical staff</td>
<td>4.1</td>
</tr>
<tr>
<td>They provided appropriate levels of feedback on progress and issues</td>
<td>4.1</td>
</tr>
<tr>
<td>The EP developed or helped to develop an appropriate &amp; sustainable process/solution</td>
<td>4.1</td>
</tr>
<tr>
<td>The team was of a high calibre</td>
<td>4.1</td>
</tr>
<tr>
<td>The EP established effective working relationships with the CSRP office and DDG</td>
<td>4.1</td>
</tr>
<tr>
<td>They understood what we wanted from them</td>
<td>4.0</td>
</tr>
<tr>
<td>Their written and verbal communication skills were clear and effective</td>
<td>4.0</td>
</tr>
<tr>
<td>Our staff’s work-related skills have been enhanced</td>
<td>4.0</td>
</tr>
<tr>
<td>They understood the health industry and its key business issues</td>
<td>4.0</td>
</tr>
<tr>
<td>The EP worked effectively with other advisory services including other external partners</td>
<td>3.9</td>
</tr>
<tr>
<td>The implementation planning of high quality and reflected shared understanding</td>
<td>3.9</td>
</tr>
<tr>
<td>The EP identified and managed key stakeholder groups effectively</td>
<td>3.9</td>
</tr>
<tr>
<td>The team had the appropriate mix of skills</td>
<td>3.9</td>
</tr>
<tr>
<td>The team had the appropriate mix of experience</td>
<td>3.9</td>
</tr>
<tr>
<td>They understood our culture</td>
<td>3.7</td>
</tr>
<tr>
<td>The EP demonstrated effective engagement with consumers</td>
<td>3.6</td>
</tr>
</tbody>
</table>

In general, there is a reasonable degree of accord between the AHS and DOH ratings. Amongst all 22 ratings there were only two work orders where AHS staff generally rated higher than the DOH rating and two work orders where the DOH rated higher than staff in the AHS. Across all categories the average score by AHS and DOH staff was 4.0.

### 5.1.2 Project and program level components

We noted in our first report that as the program develops, the CSRP is becoming inextricably linked with other activities within the health system. For instance, within the Health Department there is considerable overlap between what the CSRP Program Office and the rest of the HSIPB are doing:
It is very difficult to distinguish what is clinical redesign and what is other stuff – what is clinical redesign and what is performance management, what is clinical redesign and what are the increase in beds so what we've decided to do ourselves is we all support each other. (D)

Within area health services, the CRUs are (to varying degrees) being approached by staff for guidance and assistance with projects outside the strict parameters of CSRP. This is a healthy development and has continued into year 2 of the Program.

At the project level, solutions generated by a CSR project can be indistinguishable from other changes brought about by new policies from the Health Department, or changes implemented as a result of the influence of, for example, those working in the HSPIP, the Surgical Services Taskforce or the Emergency Care Taskforce. This is perhaps best illustrated by the work on developing models of care. This is being done as part of CSRP at the program level and many hospitals have implemented, for example, the 3:2:1 model of care or fast track in their emergency departments, sometimes as a result of a CSR project in that hospital but often not. As the CSRP has evolved it has come to comprise two main components: project-level activities centred around a large number of projects undertaken under the banner of CSRP and program-level activities that include management of the CSRP program and a range of other activities that have similar objectives to CSRP, particularly around improving performance, that interact with project-level activities in myriad ways.

The CSRP is defined by the original business case to Treasury but, not surprisingly, there have been variations to what was set out in that document. The evolving program has nevertheless remained faithful to the intent of improving performance in the short term and improving the culture of the health system in the long term.

5.1.3 What is redesign?

In the CSRP Business Case the redesign methodology is described as having three phases - a design phase using techniques such as process mapping workshops, staff interviews, data analysis and patient ‘tag-alongs’; a solution design phase during which frontline staff, management and patients develop solutions to previously identified issues; and an implementation phase in which local management is held accountable for implementing the solutions and monitoring patient throughput by means of an agreed set of indicators. The radical nature of what was proposed (‘deep seated structural and cultural reform of traditional work practices’) is similar to ‘back to a blank sheet’ business process re-engineering approaches.

Locock has summarised the characteristics of Total Quality Management and re-engineering (Table 8) and argued that redesign is about achieving a more balanced approach, retaining the best and avoiding the pitfalls of both, each of which has struggled to match reality with expectations:

Re-engineering was a response to the perceived failures of TQM’s incrementalism and failure to achieve organisation-wide change but, as with TQM, research suggests that the gains made in health care (as in other organisations) have not been as great as predicted. A particular problem has been its aggressive rhetoric and its failure to engage the staff on whom the organisation relies (Locock 2003, p 55)

<table>
<thead>
<tr>
<th>Characteristics of Total Quality Management</th>
<th>Characteristics of re-engineering</th>
</tr>
</thead>
<tbody>
<tr>
<td>Continuous incremental improvement of current processes—repeated testing and evaluation of small scale changes.</td>
<td>Radical transformational change of whole organisation simultaneously, abandoning current practice.</td>
</tr>
<tr>
<td>Organisation-wide philosophy of quality as everyone’s business</td>
<td>Focus on rethinking and redesigning processes from scratch.</td>
</tr>
<tr>
<td></td>
<td>Strip out all unnecessary steps.</td>
</tr>
<tr>
<td></td>
<td>Led from the top down—emphasis on strong management control and visionary leadership.</td>
</tr>
</tbody>
</table>
Characteristics of Total Quality Management | Characteristics of re-engineering
---|---
Responsibility for quality in the hands of frontline staff. | Decision making at the level where the work is carried out—team empowerment.
Collective team responsibility. | 
Detailed meticulous measurement | Strong emphasis on information technology
Reporting of errors and defects without fear of blame. | Requirement for flexible work practices.
Culture of open questioning and constant learning. | 

In our first report we identified the key elements of the CSRP methodology, including (at a project level):

- A focus on process.
- Priorities identified with a ‘top down’ approach but with engagement of key stakeholders and development of ‘bottom up’ solutions.
- The structuring of new groups to address organisation wide issues – modelling new organisational forms and structures.
- The use of data (lots of it in a timely manner, linked to the project KPIs).
- Working in teams.
- Using the idea of a patient journey to think beyond the confines of individual departments or services.
- Getting a patient perspective.

This is supported by a formal project management approach with high levels of structure, expertise from external partners and strong performance accountability with the use of executive sponsors, short time frames and daily review. Our view is that work undertaken as part of the CSRP is more in line with this ‘middle path’ described by Locock rather than the re-engineering approach referred to in the CSRP business case.

The stated aim of CSRP, as described to us by the architects of the program within the Health Department, is to focus on redesigning the systems and processes that support clinical practice, rather than the practice/care itself, a distinction which was evident in the first year from those working on projects. We commented in our first report that this distinction is somewhat arbitrary and has the potential to confuse what CSRP is trying to achieve. The senior managers we interviewed in year 2 included those who were unaware that such a distinction existed within CSRP, those who saw a clear distinction between clinical practice and its support systems and those who thought the distinction somewhat artificial, with the latter view prevailing:

*The two interact all the time because whilst we’re not saying what you have to say in your multidisciplinary ward round every morning or what you’ll do in that meeting, we’re saying you must have one, because in having one, the discussions that will flow from it will better coordinate patient care. Patient care will then change based on that. So, over time there will be an influencing of clinical practice.* (D)

*I don’t know how you can say we’re going to redesign systems to improve outcomes without saying it’s going to have an impact on clinical practice. It’s a bit like saying the bureaucrats run the system but the doctors do whatever they like working clinically. It’s just silly. If we say to people you’re going to run surgery in this way and it’s going to be a 23 hour ward system, that means you’ve got to select your patients in this way, you’ve got to give them information about it and you’ve got to explain that that impacts on clinical practice. It’s a completely false dichotomy in my view.* (A)

*We need to mature this and you’re a mug if you believe that all the things that the doctors do are right. I mean, let’s start with the appropriateness question, is everything they do appropriate? Then*
let’s go to the question of is everything that they do, or the way they organise themselves to do it, efficient? And, and finally, there’s the qualitative dimension. (H)

Framing this in the language of clinical redesign: good work may be done to improve the patient experience but this should be done in combination with asking the questions, should they have embarked on the journey in the first place or should they have taken a different route?

As the CSRP has unfolded and work has moved outside the areas of EDs and elective surgery the ‘models of care’ approach and the complexity of the projects has resulted in a greater level of sophistication than a simple clinical practice/support systems distinction:

I think what we’ve learnt from the discreet projects is the key elements and then we can roll that into a much broader understanding and into a model of care and key principles, but until we do those projects, we don’t know what the key principles are; we don’t have the data; we don’t have the facts. So I think they build upon each other. (D)

As a longer-term initiative, to change the way we do processes and how we conceptualise what we’re doing in working, I think there’s real potential. The first round of clinical redesign, it was focussed in the emergency department. It was a quite discrete, confined, care stream that they were looking at. With this older persons and chronic care, it’s incredibly complex in the community. What’s coming back from this round of clinical redesign is quite clearly a very well considered, comprehensive, profiling and service mapping, of what’s there in the community, plus then, some strategic thinking about how we want to make it work better, so we can work more formally with other health provider partners in the community. And, I think that’s where the significant potential lies, for clinical redesign, this time. (A)

One issue to arise from the large number of projects that have taken place to date is the extent to which there is a need to keep doing more projects, with some suggesting that the focus should shift to making sure that the ideas that have been generated to date are implemented:

When things are not going as well as they were, don’t do another project … Go back and reinvest in this, what has changed in the environment, that led us to come to this set of solutions, which of those are still valid and which of those might in fact contribute to whatever the new driver is … I don’t know if we need any new projects, we’re having an internal debate, do we need any new projects? My personal view is no, we don’t. (D)

I wonder if we need more ideas or we actually need to embed the ideas that we’ve got, and I’m a bit towards the latter at the moment. I don’t know that we need a lot more ideas. We need to embed and focus on delivering, and when you do start to focus on delivering, that’s where you’ll get some of the cultural stuff. (H)

Another important issue with regard to the ‘model’ of redesign concerns the role of evidence, particularly the evidence that can be generated from the work that is being done, which can in turn influence the types of projects done in the future. We have noted elsewhere in this report the strong emphasis on the upfront diagnosis and solution design phases, with less emphasis on implementation (Section 5.6.2). There is even less of an emphasis at the local level on evaluation. The Evaluation Guidelines for Clinical Services Redesign Program distributed in late 2006 to facilitate project-level evaluation have not been used and only one AHS (Sydney South West) has done any project-level evaluation. The ARCHI web site, which has all the diagnosis, solution design and implementation planning documentation generated by the CSRP projects, does not incorporate any findings from individual projects. This is disappointing, as echoed in this comment by a couple of senior managers:

Health does not write up its best practise in relation to the running of the health system. We’re incredibly versed authors in relation to the clinical services but, I mean I’ve seen now a lot of commentaries, there is no literature on how structure, function, and operation actually links with the quality of services. (D)

R&D is not built into our thinking processes. I think we’re still a very cottage industry for the size and complexity of the businesses that we’re running. (D)
We will explore this issue more fully in the third year of our evaluation.

5.1.4 Comparison with previous initiatives

During interviews with senior managers we sought their views on how CSRP compared with previous initiatives/approaches/methods to improve health services. The comments were generally very favourable, often with an emphasis on how CSRP was building on or was consistent with what had gone before. Much of the language was one of continuous improvement, with the main differences to what has gone before being the scale of what was being done, the commitment of time and resources, the use of external partners, the focus on patients, the drive from the centre and the fact that is CSRP is not something ‘done’ by ‘quality people’ but embraced more widely. CSRP is an interesting blend of change and continuity:

It’s a level of building from the past for me. But as a clinician this is the process that engages me because it's patient-centred and the others aren’t … that's why I found it so engaging. I’m passionate about it because it's stuff that I’ve dreamt of doing for 20 years and it has a methodology and a structure and it’s clinical, it’s patient-based and it’s based around engaging clinicians to be clinicians. (D)

I don’t think the whole redesign process has necessarily developed stuff which wasn’t already in the thinking of the health system. It gave good ideas that were in the thinking of the health system a licence to actually run. That’s probably its most significant change. (D)

Well, to be honest, and to be fair to this process, which I spend most of the time criticising, they’ve probably had more effect than any of those things. And part of the reason is the amount of energy and time that’s been spent on it. But also they’ve got some pretty good methods … this is good stuff. And also brought in really good people too. And they had the right approach. They had the right attitude towards the staff … these are tried and tested methods and clinicians, nurses and doctors, they’re highly motivated people; they want to improve things. (A)

Redesign was a catalyst or tool to change in a couple of ways, a methodology, parts of it were new and out there, parts of it are the quality cycle, CQI, however it gets badged … but the difference was a bit of a focus about more fundamental examination of problems, plus the external resource brought a level of rigour around the process here that I’ve never seen in the quality stuff before, and quality stuff flip flops around … it doesn’t ever get on to implementing solutions. (A)

This is quality methodology. This is plan, do, study, act involving key players. It's on a big scale … I don’t think anyone who knows anything about quality would say this is some revolutionary new thing that hasn’t been tried before; it was building on a whole lot of work that had been done in NSW since the quality framework. (A)

This is continuous quality improvement; by another name … the difference is this time is this has been embraced by the clinicians; it's not seen as something that quality people do. This is fundamentally addressing the system of health care delivery … the difference is about the scale, the influence, the approach and dealing with the main game rather than doing bits on the side. (A)

It’s an evolution; I don’t think there’s any difference at all, I’ve been doing it under different names … for me the issue is the ability to manage a project, and manage it clearly and articulate it. (H)

I actually think that it’s more sellable. I think I can relate to it more easily, or it hits a chord in me, in that it’s talking about getting back to the patient, and centring what we’re doing around the patient. So what I think is good about it is that it is trying to get back to the heart of the matter, which is improving people’s health. In clinical redesign, I actually think that getting back to basics around our reason for doing this is around patient care and outcomes. I actually relate better to that myself, and I find a number of people do. The message I’m getting out of my Department of Health communications is that they really do want to bring it back to patient care, that notion that patients are getting their treatment right time, right place, right treatment. That not only that it’s better for the patient, but they’re also saying how it is more efficient for the service provider. (H)
5.1.5 The language of CSRP

During the interviews in year 2 we tried, as far as possible, to avoid the terminology that has come to be identified with CSRP, specifically the terms 'models of care', 'patient journey' and 'patient experience, to test the uptake of this language. These terms have become part of the day-to-day language of those working in the HSPIB but we wanted to assess whether this was the case elsewhere. Amongst the 27 people we interviewed who work at either an area or hospital level the use of the terms is summarised in Table 9.

Table 9 Use of the language of CSRP

<table>
<thead>
<tr>
<th>Term</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Models of care</td>
<td>15</td>
<td>56</td>
</tr>
<tr>
<td>Patient journey</td>
<td>8</td>
<td>30</td>
</tr>
<tr>
<td>Patient experience</td>
<td>7</td>
<td>26</td>
</tr>
</tbody>
</table>

Although a relatively small sample the interviewees all occupy key leadership positions and it may be worth giving some further consideration to the language of CSRP and its application. In part, this has occurred with the employment of a communications officer within the HSPIB. Despite this seemingly low penetration of these terms beyond the Health Department, when they were used it was generally positively, as gauged by the following comments:

This patient experience thing, this patient journey, that's actually a very interesting part of what we are doing, trying to get out of this process, you know, detailed information from patients that will then be used by managers in a general way, I mean, that's really nice. I wasn't quite sure about it when (name) first started talking about it but I actually think it's a very useful way of us to re-orientate the way we view our clients. (A)

I don't like using jargon, but the patient journey, I think sits nicer with me, I don't know how it sits nicely with everybody else, because I can understand it, I can understand models of care, it sits well with the clinical executive and our executive understand it. (H)

The patient journey work will be a major component. I think it will provide us with an insight that we haven't had before and I think that's the real value, because we think, clinicians are classical, they think they know what the patient journey is like, but I don't think they have the faintest idea, with all due respect. (H)

We note the finding from the VEM work that there is not a uniform understanding of the concept ‘patient journey', particularly (although not exclusively) among facility-based managers (VEM 2007).

5.1.6 Diagnosis and solution design

The survey of projects sought a description of the most important change in practice introduced relating to the project's main objective. There were a range of descriptions of these changes, with the most frequently mentioned being improvements in the discharge process and new models of care in EDs. To gain a better understanding of the solutions being developed as part of CSRP, rather than just the most important ones, the solutions from projects (see Appendix 4 for details of which project solutions were included) were grouped based on a classification system for organisational interventions, with minor modifications (Elkuizen, Limburg et al. 2006). Not all these solutions have been implemented. The results are summarised in Table 10, which includes examples of interventions in each category. Because of the quite different nature of the aged care projects undertaken in year 2 of the program these are identified separately. In total, the table includes categorisation of 631 solutions in 43 projects, 86 solutions in aged care and 545 solutions in all other projects.
Table 10  Categorisation of CSRP interventions

<table>
<thead>
<tr>
<th>Category of intervention</th>
<th>Category of project</th>
<th>All except aged care</th>
<th>Aged care</th>
<th>All projects</th>
</tr>
</thead>
<tbody>
<tr>
<td>Changes in process sequences or organisation of processes</td>
<td></td>
<td>36.1%</td>
<td>32.6%</td>
<td>35.7%</td>
</tr>
<tr>
<td>Changes in capacity planning</td>
<td></td>
<td>18.5%</td>
<td>3.5%</td>
<td>16.5%</td>
</tr>
<tr>
<td>Staff organisation</td>
<td></td>
<td>7.3%</td>
<td>0.0%</td>
<td>6.3%</td>
</tr>
<tr>
<td>Presence and organisation of quality or performance monitoring mechanisms</td>
<td></td>
<td>7.9%</td>
<td>9.3%</td>
<td>8.1%</td>
</tr>
<tr>
<td>Changes in physical structure, facilities or equipment</td>
<td></td>
<td>7.7%</td>
<td>11.6%</td>
<td>8.2%</td>
</tr>
<tr>
<td>Integration of services or changes to improve continuity of care</td>
<td></td>
<td>4.4%</td>
<td>14.0%</td>
<td>5.7%</td>
</tr>
<tr>
<td>Cooperation with external services or communication and case discussion with off site health professionals</td>
<td></td>
<td>3.1%</td>
<td>2.3%</td>
<td>3.0%</td>
</tr>
<tr>
<td>Revision of professional roles and changes in skill mix</td>
<td></td>
<td>3.3%</td>
<td>16.3%</td>
<td>5.1%</td>
</tr>
<tr>
<td>Education programs</td>
<td></td>
<td>2.8%</td>
<td>1.2%</td>
<td>2.5%</td>
</tr>
<tr>
<td>Introduction of clinical multidisciplinary teams</td>
<td></td>
<td>2.8%</td>
<td>0.0%</td>
<td>2.4%</td>
</tr>
<tr>
<td>Changes in the setting/site of service delivery</td>
<td></td>
<td>2.4%</td>
<td>2.3%</td>
<td>2.4%</td>
</tr>
<tr>
<td>Mechanisms for dealing with patients suggestions or complaints</td>
<td></td>
<td>2.9%</td>
<td>7.0%</td>
<td>3.5%</td>
</tr>
<tr>
<td>Interventions to boost morale</td>
<td></td>
<td>0.6%</td>
<td>0.0%</td>
<td>0.5%</td>
</tr>
<tr>
<td>Changes in medical record systems</td>
<td></td>
<td>0.2%</td>
<td>0.0%</td>
<td>0.2%</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
</tr>
</tbody>
</table>

The solutions identified across most projects are very similar, with one third involving changes in process sequences or the organisation of processes - classic process redesign. The aged care projects include a much higher percentage of solutions to integrate services, improve continuity of care and improve cooperation with external services e.g. residential aged care facilities. The aged care solutions also involve greater complexity of service providers with inclusion of hospital and community-based public health services as well as general practitioners and non-government organisations such as residential aged care facilities. The time frames for implementation are generally longer than in more hospital-focused projects.

Whilst the emphasis of redesign differs somewhat across the projects, the scope of what is targeted for redesign is broad. The only consistent exclusion is clinical decision making and care delivery although there is reference in some projects to the delivery of ‘evidence based care’. There are a number of redesign themes or directions that are consistent in the majority of project documents. In broad terms they are to:

- organise and structure services around patient need, rather than health professional need
- ensure the best use of resources by aligning capacity with demand
- see the big organisational picture
- increase service integration
- formalise, clarify and, where required, redesign roles and responsibilities
- build more effective teams by increasing communication
- use constraint and performance data to drive daily care priorities
- constantly review priorities and what needs to be done.

What is interesting is that some of the major solutions involve ‘separating out’ a specific group of patients to be treated in a different way. For example, 23 hour wards for extended day only
patients, separate centres for psychiatric emergency presentations (PECC units) and various models of aged care. This also underpins the ‘3rd door’ idea that is planned for implementation in 2007/2008. Whilst each of these make perfect sense there is the potential to run up against the ‘your integration is my fragmentation’ problem (Leutz 1999) and create more separate queues within the system, with the potential to introduce inefficiencies (Silvester and Haraden 2007). We believe that ongoing evaluation of these solutions as they are implemented and mature would be worthwhile.

In general, the solutions reflect this comment from a senior Health Department manager:

_Ultimately there’s very little that’s new under the sun and redesign is really just thinking about how you could do things differently and nearly always someone else has done it that different way. But this is a process where people go through it, they learn from it, they feel proud of it, we spread it and things change and numbers change and I believe patient experiences change as a result. So that’s why it’s a bit like a religion._ (D)

**Transformational or incremental change**

As identified in our first report, and confirmed in this report, the solutions implemented as part of CSRP are generally a mix of quite standard interventions with the emphasis on smaller-scale, incremental change. This is not to say that a quite simple intervention cannot achieve significant results in a particular situation. These findings are consistent with the results of the evaluation of the Maggie Program which found that 97% of solutions were either fine tuning or incremental in nature. Redesign takes time and the hopes of overnight transformation are typically misplaced (Iles and Sutherland 2001). Although this is at variance with the stated aim of the CSRP business case, there is nothing inherently wrong in this. What is different with CSRP is the sheer number and range of solutions. Individual solutions may not be as important as the collective effect of multiple solutions.

This prompted us in our first report to pose the question ‘is the current CSRP approach more likely to result in transformational or incremental change?’ in the belief that those leading and involved in the CSRP might like to reflect on the design principles and assumptions upon which the Program is built, and ask whether they will be sufficient to achieve the desired results. An alternative view, again posed in our first report, is whether CSRP should still be striving for ‘radical’ transformational change or whether incremental change will suffice. What is important in the longer term is that the language reflects the reality.

_We’ve got 110,000 people. How are you going to achieve transformational change with 110,000 people who are highly intelligent in large part, and have all got their own ideas about what’s worked and they’ve had a history of doing their work in a particular way and they’re quite convinced from their experiential side that what they do and how they do it is the right way? I mean they wouldn’t be doing it that way otherwise, so to get them to change I think is slow and a matter of education and data and yes, evidence._ (D)

_The terms are both crass and unhelpful. What we’re trying to do is achieve ongoing change for the purpose of improvement. And improvement is in the quality and safety of care we provide, and the efficiency of the tax payers money. So any change that we make that is not for the improvement of those things is irrelevant … It doesn’t matter whether it’s transformational, incremental, any other word you want to put on it, the difference between the two terms is one’s an outcome and one’s an action. Incremental change is a part of a process, transformational change is an outcome. And the outcome is you look backwards and you say, was this organisation transformed? And the answer will be yes or no. It may have had incremental change or it may not have … I’m not interested in whether it’s transformational, incremental, I don’t care provided that it’s for improvement._ (A)

_I think it’s probably a bit of an ambitious spin, to say we’re going to transform the health system. If you go out and talk, a lot of people wouldn’t know what clinical redesign was, or whether its benefits can be achieved … I would consider transformation of the health system far more importantly relating to the focus that we’ve currently got out of the strategic plan around all the intervention and primary and community health, being a far more significant, in really transforming the way we think,
because I'm a firm believer that primary healthcare and community health has been in poor relation to the hospital services. (A)

There is a long history of improvement activities within the NSW health system. We believe that at this stage in the development of CSRP it may be helpful to abandon the issue of whether CSRP is transformational or incremental in favour of a ‘have we improved?, ‘how can we improve further?’ approach. This may facilitate integration of activities identified with CSRP with activities undertaken under other banners such as clinical governance. We return to this issue of the scale and reach of the CSRP and how these may be further improved in the final discussion chapter, but offer the final thought here that it is not the methodology but the level of aspiration and commitment that will ultimately determine the scale of achievement.

5.2 Role of the Centre and program governance

5.2.1 Role of the Centre

What emerged from interviews with senior managers in year 2 was the importance attributed to the change in the relationship between the Health Department and AHSs resulting from the restructuring of AHSs in 2004, which included the removal of area health boards, and the implications this had for managing performance from the Centre. This view was shared by managers at all levels:

The system changed when we got rid of the Boards, and we turned things on their heads, so it was no longer the Chief Executives reporting to the Board and then the Board reporting to the Minister and the DG trying to act in some way … so the Department does have a far greater directive and interactive role with the Area Health Services than it had under previous arrangements. (D)

The Department overall, I think since the boards have gone and the big areas have been formed, is being more directive in terms of what it wants. That was the intention. (A)

By removing the Boards it just cut down the issues around accountability, and I think that the command and control structure has been greatly strengthened, I think performance has been greatly strengthened as a result, and I think that’s been positively linked to the performance management stuff that (name) and her team have developed, of which the clinical redesign program is a component, but everyone thinks that the clinical re-design programme, it’s all about redesigning the system. My sense is it’s about getting focus on outcomes and performance with rigour. That’s what I think it’s been … they talk about redesigning how you do stuff but there’s a big bloody component of it that’s just, what are you trying to do?, what are you trying to measure?, how are you going to get there?, just keep at it. (A)

There’s no doubt that the dynamic between hospitals, the area health services and the Health Department over the three years has been a seismic shift; seismic. (H)

The Health Department is seen by those outside the Department as more directive and interventionist than in the past, and this has given rise to a number of classic dilemmas - role ambiguity, role overlap and duplication; role conflict – not only about the role of the Department but about the role of AHSs:

There is a lot more hands on in the system now. It wouldn’t have been conceived three or four years ago that a deputy director general would call general managers of hospitals in on a regular basis and say to them you’ve got to do better. You know, it just so cuts across the hierarchies that people wouldn’t think it could happen. (A)

What you’ve actually seen is a department come in, move the area health service over there and come in directly to facilities … so the question for me is more, what really now is the role of the department, is it setting the policy and the framework about what we should be doing, or is it actually supposed to be helping us do it, I don’t know, and helping us do it here, or helping the area health service work with us to do it, I don’t know. So there’s quite a blurring of roles now between who’s doing what. I know what I’m doing, but I think in relation to our relationship with the Department, it’s relationship to the area. I’ve got the area ringing me, I’ve got the department ringing me, I’ve got the
At the moment we have too many masters, so I don’t mind that there’s a strong drive and in fact I totally support a strong drive from the department, but it should be through the area health, and then from the area health to the facilities. Because you can get phone calls from any number of places and you can get directions from any number of places, but at the end of the day, we’re part of an area health service ... you can’t be pulled in three directions, so I think sometimes there needs to be a little more thought perhaps or care about how these directives come down because it’s very difficult when you’ve got one set of views coming from the department and you’re working within the area … It’s great to be driven, no problem being driven, … but I think we need to be very careful that we’re not sending conflicting messages. (H)

If the phone rings, it can be the area director of nursing, the director of clinical ops, the chief executive, or the deputy director general asking me what the weekend was like. (H)

I’m responsible to the Chief Executive of the Area for my performance on my KPIs, but I’m monitored as closely by the Health Department as I am by him on my performance. (H)

I think the department wavers between wanting to control what’s implemented and wanting to measure the outcomes. And I think they have to work out where they are, where they sit, they can’t do both. (H)

One interviewee described the relationship between the Health Department, AHS and hospital as being ‘all squashed up’. These reflect what was observed in two of the weekly CSRP/SAP meetings attended by a member of the evaluation team during which detailed discussion occurred about individual hospitals and their performance without any reference to the management structure within AHSs. If there was perceived to be a problem with a particular hospital the typical response was to deal directly with the hospital, rather than requesting the area chief executive to take action.

These comments are consistent with what we found in year 1 when we interviewed staff working on CSRP projects:

To a certain degree I think the Department tend to monitor us a bit too much… I can understand to a certain degree why… they need to be assured that what we’re doing is meeting their objective but I just think that, right down to the work order, it seems to be a battle. (A)

At times they have used clinical redesign to assist the micro-management of facilities and health services. (A)

Key stakeholders we interviewed in year 1 saw the CSRP as centrally driven and part of a broader move by the Health Department to micro-manage the system. This was also reflected in comments by senior managers in year 2 working in AHSs/hospitals who referred to ‘the area’s micro managing us because the state’s micro managing them’, ‘we’re being micro-managed to within an inch of our lives’, that micro management was ‘claustrophobic’ and ‘micro-management by the Department of Health is just quite extraordinary’.

In our first report we highlighted the issue of who ‘owns’ CSRP and raised the question as to whether there was a need for the centre to play more of a ‘help it happen’ rather than ‘make it happen’ role, with the latter characterised as being scientific, orderly, planned, regulated, programmed and ‘properly managed’, whereas a ‘help it happen’ approach would be one that
features negotiating, influencing and enabling (Greenhalgh, Robert et al. 2005). There are those in the Department who believe that this change is occurring:

I mean there’s certainly a lot of negativity about the department still. You know, that we’re all number focused, we’re not really interested, and we’re still imposing things and we’re telling people how to run their business and we’re interfering when they are quite capable of doing it themselves, thank you very much. I’m sure that’s a feeling amongst a lot of people but more and more I think they’re feeling it is a bit different now, I think the department’s being a bit more of a facilitator than an imposer. (D)

However the comments above from the year 2 interviews about micro-management cast some doubt about the extent to which this is – or perceived to be - occurring.

In our first report we identified that an important knock-on effect of this approach relates to the buy-in of key stakeholders, especially clinicians. One of the critical successful factors for the Program is the active engagement of clinicians. The likelihood of achieving this is determined, at least in part, by how clinicians see the aim of the Program. This engagement is more difficult if the Program is perceived as a centralised, reactive approach solely aimed at improving health system performance (as opposed to safety and quality too):

One of the key things with clinical redesign is about empowering people on the ground to identify and resolve the issues whereas the reactive management which is from ‘on high’, instructing ‘you will improve’ and ‘do this differently’ very much cuts across the quality improvement cultural development so there is a real tension between a quality improvement culture and a performance culture in some people’s eyes. (A)

From the perspective of those working in the Health Department these comments are interesting:

The hardfire performance arm is you’re not performing, we’ve got no other punitive measure to take, we’re just going to call you in and sit you down and say, you’ve been very naughty, what are you going to do about it. Why aren’t you doing this, why aren’t you doing this, why aren’t you doing this, why aren’t you doing this? Are we micro-managing or not? … for me to understand what’s going on I need to micro-manage them. (D)

There’s no doubt that in the ideal system, people will mature and learn and should be encouraged to manage their own problems. It’s like having kids. You want to take them through a phase where they realise that something is bad, then they realise something’s bad and there’s consequences for them if they still keep on doing it and then you say, you wear it, I don’t care. If you continue to do that, it’s up to you now, you’re now over 16 years of age, and that, I think, is what we’re going through. But it’s very easy, it’s very tempting for parents to say I’ll help you with that even though you continue to be bad in that regard. So, so there’s always this tension and to some extent it depends on the personalities of the people around the table on that particular day … The reason I used the parent/child analogy is that what I’ve described to you is in the ideal world we’d have an adult-adult relationship with them. That’s what I am working towards and we’ve got to resist this business of trying to micro manage them. Having said that, yeah, there’s some instances of what they’re doing which, frankly, beggar, how could you possibly be doing that when you’re such an intelligent, competent person. (D)

I think one of the criticisms you can make of an area is, they don’t step away from, they get too tangled up in the operational world. They’ll claim that’s their core business and that’s what they should be doing. I’ve got a different view. I think they are not strategic enough, I think they’re too tactical and they get too embroiled in running hospitals when they really should have redesign, continuous improvement unit, they should be doing a lot of this stuff. They shouldn’t need the Department to tell them. There is some synergy about the Department trying to make it consistent and setting the policy and setting the guidelines and making the data consistent and the reporting flows and so on. But in some ways (name) is doing their job for them. (D)

There is a recurring theme about the extent to which both the Department and the executive of AHSs should be getting involved in operational issues and who should be taking the lead on strategic issues. To some degree these tensions are inevitable in any hierarchical system and reflect a certain lack of clarity and shared understanding about respective roles, not surprising
given that the system in still ‘finding its feet’ after a period of significant restructuring. There are variations on the theme of the Health Department’s directive role:

My view is that the department leave the areas alone until the department perceives there is a problem, then they come in very heavy-handed. (A)

The department will adopt a range of strategies depending on their perception of our competence and motivation, and the criticality of the situation … The department is quite directive, we’re in a command and control structure, this isn’t an organisation that has workshops to make decisions … my sense is that the Department, will, depending on their perceptions around our competence and the steps that we’ve taken, either review what we’ve done, support us, sometimes they will support us by providing resources or professional help, right, and watch the outcomes. But there will be situations where they will actually simply say do this, and that is their judgement call on their system, just as we will do the same in our system. I think, particularly (name) unit, they will provide support to you. They won’t just bash you over the head and tell you what to do; they provide real support for you and allow you to nut it through. So, they’ll use those varying techniques, those varying levels of direction, and that seems okay to me. (A)

All of this suggests a need for the centre to further clarify its role and future intentions with the people in its network – sideways, upwards and downwards - and then act in a way that is consistent from their partners’ perspectives.

5.2.2 Performance management

There is general agreement amongst those we interviewed in year 2 that the increased focus on targets and performance is a good thing:

The reforms have been good and the focus on performance and achievement actually makes, makes you feel the job’s worthwhile. What actually kills morale, kills people, is a sense of working hard without results. (A)

I think the areas have accepted that they have a responsibility to perform now. There’s been certainly a much stronger focus on the need to deliver levels of performance … whereas in the past I think there’s been an acceptance that we’ll do the best we can: if we don’t meet the targets then that’s because it’s too hard, and there’s too much activity and too much more demand coming in, and so it’s been a shift in the culture of the thinking of accountability. (A)

My personal opinion is that the focus on hospital performance is 10 years overdue … This shift of paradigm for hospitals from process to performance came out of New South Wales Health. It did not come out of area health services. I could spend the rest of the afternoon telling you the things that I think they don’t do well, but when it comes to this paradigm shift, it is welcome, it is good, and it is right. It will be a bloody big mess and a mistake if they don’t sustain it for the next three years. (H)

The targets and the information that is now used is much better … Now I think it’s actually run in a much more modern style through good information, proper performance measurements, so people can see how they are going. I think it’s more professional and we do actually have good data to compare performance and targets that everybody understands and knows. So I think it actually works better, people perform better because they know what they’re performing to, the targets don’t change every day, which they used to. (H)

Evidence elsewhere suggests that there is the potential for the setting of performance targets to distort behaviour. Achieving a target can be done by improving the system so that it can meet the target, distorting the system or distorting the data. There is a risk ‘that target-driven management subverts sustainable improvement as the short-term appeal of target achievement overtakes the desire to bring processes under control (Walley, Silvester et al. 2006, p 95). Centralised performance management can improve coordination and integration but ‘it is unclear whether these benefits outweigh the unintended and dysfunctional consequences of managing organisations in that way’ (SDO 2006)
Setting targets is based on the assumption that some measure (e.g. emergency admission performance) can act as an indicator of a performance domain (e.g. access) that has been given priority. This is based on the concept of synecdoche (using a part to stand for a whole). Typically there are three types of indicators:

- A small number of indicators that are good measures.
- A larger set of indicators that are imperfect measures but for which data are available. These measures are liable to generate false positives and false negatives.
- Additional indicators for which there is no useful source of data (Bevan and Hood 2006).

Concerns identified by managers were not about performance management per se but the narrowness of the indicators that are being used to judge performance and how these are being applied:

*The bulk of the executive agenda gets directed towards the emergency department and surgical access performance. And we are a lot broader organisation than that and getting that balance and focus right, on doing some of the other things that are important to do, for example, reviewing what we’re doing in community health and primary health care, and all those other sort of things. It’s always a challenge to get them on the agenda. But, when the spotlight’s on emergency department and surgical performance, everybody just runs to that focus.* (A)

*It’s interesting because the message from the department is, and I don’t disagree with it, it’s very much around, meeting the performance indicators, i.e. not having people wait in ED for lengthy amounts of time or whatever are major patient safety indicators, which I would agree with, I’m not disagreeing, but it’s not the only one. Ensuring that the quality of care in the emergency department is appropriate, ensuring that I’ve got appropriate staffing, I can open the doors, all of those other factors are also indicators, they don’t show through in this process though. I only get one set of indicators to reflect that, and I think that’s the issue for me, but is there a direct relationship between them and patient safety and risk whatever, absolutely, otherwise why would we be doing it?* (H)

In a situation where targets have been achieved, and in the absence of knowledge about provider behaviour, it is not possible to distinguish between the following outcomes:

- All is well and performance has achieved the desired level.
- Targets have been met but at the expense of areas of performance that are not being measured.
- Performance appears to be fine but the actions taken to achieve targets are at variance with the goals underpinning the targets (i.e. the system has been distorted).
- Targets have been achieved by manipulating the data (Bevan and Hood 2006).

When improvements in performance occurred in the UK there was uncertainty about the extent to which the improvements were genuine or the result of gaming, resulting in the suggestion that some face-to-face scrutiny (rather than just reporting the data), together with random visits to hospitals should be used to reduce the problems of synecdoche and gaming (Bevan and Hood 2006). Both elements are in place within the NSW health system – the monthly performance meetings involving area chief executives and the work of the four performance managers employed by the HSIB, who perform an important role as a conduit between the Department and AHSs, visiting the AHSs they are responsible for on a regular basis and developing a good understanding of the performance of the AHSs.

The aim is not only to achieve targets but to understand why they have been achieved (or not achieved). This brings managers up against what has been described as the ‘black box’ of social science research – “the performance measures can describe what is coming out of the black box of a public agency, as well as what is going in, but they don’t necessarily reveal what is happening inside” (Behn 2003, p 592).
Performance management meetings

As part of the Health Department’s performance management system the chief executive of each AHS meets monthly with the Deputy Director General, Health System Performance, to review the performance of their AHS. Each is accompanied by their senior staff. The meetings are held consecutively over the course of a single day.

When these meetings were started about two years ago they were described by interviewees as follows:

- The monthly meetings with the CEs, some of them were pretty…obviously this cultural change was, was enormous for them, because some of them were fairly fiery. In fact, very fiery. (D)
- When we first started those, XXX stormed out of the first couple of those meetings, they were angry, they were defensive, they didn’t want to know. (D)

The nature of the meetings now appears quite different:

- You sit in on those now, and with all of them, except probably in one area, it’s the most sophisticated, intelligent discussion of the issues and the problems that I’ve, it’s a very intellectual, I don’t know what you think, but I enjoy those sessions because it is this highly constructive dialogue. (D)
- They have changed as people have got to know each other and they have changed as people in the Department have got confidence that we know what we’re doing and the department very much has a culture which is if you don’t hear from us, it’s a good thing. You only hear from us when you’re not doing well. (A)

Six of these meetings were attended by a member of the evaluation team in June 2007. There are many theories regarding the functioning of groups, one of the most long-standing being the work of Bales who believed that groups try to achieve two major goals - maintain the group and perform the group’s task. To achieve each of these goals the group must perform certain actions. The work of Bales is based on the assumption that maintenance of the group and performance of the task oppose each other and that groups have an inherent problem balancing the two (Bales 1950). For example, too much attention on performing the task may not leave enough time for the necessary social interaction to maintain the group.

The structure of the meetings we observed varied little from meeting to meeting and included:

- Review of the emergency department and surgical KPIs.
- Review of progress with CSRP projects.
- What were referred to as clinical governance issues e.g. number of falls, number of complaints dealt within 35 days, ‘time out’ for patients about to undergo surgery, ‘time out’ for patients about to have one or other forms of medical imaging,
- Budgetary position (not discussed with all area health services).

Using the framework developed by Bales there was a much greater emphasis, across the six meetings, on task completion as opposed to group maintenance, with the majority of time taken up with giving opinions and information as opposed to seeking information and opinions i.e. communication rather than exploratory meetings. This is what we would expect in meetings such as these. Staff from the HSPIB asked for information more than AHS staff and AHS staff gave information more frequently than HSPIB staff. Suggestions were called for only on a few occasions.

It is worth noting that (almost without exception) when someone from the HSPIB congratulated an AHS for their performance on one or other of the performance targets the response was to provide a note of caution e.g. ‘activity is increasing’, a comment that a particular service ‘is fragile’ and
another comment that services are ‘on the edge’. The impression is that no AHS wants to appear ‘too good’ in case it raises expectations about future performance (which may not be sustainable).

One of the senior AHS managers we interviewed explained that this response was due to three reasons:

> It's partly when you've got a real issue you've got to signal it to the department … The second is that, you get to those goals, and you achieve those targets, but it's thin ice, right? You just need one bad surgeon or a couple of bad days and it'll crash, and the next meeting when you drop they'll be disappointed. So, with all the praise that you get, you know that if you don't meet it there'll be whack, and the whacks are worse when they're surprised, right? So one is signalling genuine issues, two is you just know how fragile it is and if you sit back and give them the impression that it's all under control and then you crash you'll get whacked, and the third is, mate, hubris, all right, you know. I mean, don't get me wrong, I'm not into the Greek gods and fate and all that sort of stuff, but we all, as humans, have this respect for whatever it is, right? You just don't sit there saying I've licked this. You just don't do it. (A)

This view was not dissimilar to that of the Department

> It's dangerous to be at the top, even though they'd love to be there because it means that you've got to keep performing there, because us congratulating them carries with it an expectation that they'll stay there and that they might be used to beat their peers around the head, if I can do it, why can't you? (D)

There were only three instances of disagreement during the six meetings we observed – one minor point where an AHS disagreed with the data being used by the Department and two more fundamental disagreements over information technology. In addition, one AHS put forward the view that maintaining a particular level of EAP in an environment of increasing demand actually represented an improvement because the absolute number of people being admitted to hospital from an ED within the target of 8 hours was increasing. A similar argument holds for triage times and off-stretcher times. The HSIB appeared to accept this point by congratulating the AHS for achieving ‘excellent results’ with regard to the absolute number of patients meeting the benchmark times.

5.2.3 The role of competition

The HSPIB expressed their view to us that competition had been an important driver for change. To explore this supposition further, we included a question on the role of competition in improving performance in the interviews with senior managers. We found that even within the Health Department there were differing views about the role of competition:

> The competition has been there, but I don’t think it has been a huge feature. Everyone has been focused on just trying to get these figures. (D)

> Between hospitals, no. Between Area Health Services at a lower level, no. I think the competition component’s starting to wane a bit. It’s a bit of a joke now. Originally it was. Over the last two years the competitive thing has been about who can perform the best, who can do this. It’s no longer a competition. We’re serious about it. The fun bit of being in competition’s gone. (D)

> We know that there are CEs who compare their results and ring and rag each other over it but that's a form of competition, I suppose. We know that within areas there are hospitals, any league table's got winners, losers and people in the middle and people don't want to be at the bottom because it tells a certain story. (D)

When it came to those working outside the Department there was a range of views, including those who thought competition has played a major role:

> I think creating a competitive environment is incredibly important. If you publish information within the hospital about all the area health services, about how people are performing, nobody wants to be the poor performer, so there are levels … From a hospital-to-hospital level, everybody wants to beat everybody else. They want to perform better. Sometimes people might not like the pressure
so much, but at the end of the day they like the outcomes … … Our Chief is very competitive about looking at the weekly sustainable access reports that come out. It shows you how all the areas are going against specific KPIs and you can see it facility by facility too. So I’m sure the chief executives are just as competitive. (H)

Between the areas, absolutely, absolutely, and that’s driven by the Department … the Department will constantly talk to you about the different performance across the areas, so the pressure on the CEs must be enormous, and I’m very conscious of that. (H)

When people try to disarm you, and say, oh, it’s not, there’s no competition; lot of rubbish there isn’t competition. There’s competition as black and white, as night and day. (H)

One of the interviewees coined the term ‘performance sledging’. Others had a more guarded view of the role of competition:

We haven’t been competing so much. I think we look at the targets more than what others are doing. Sometimes it’s thrown up in our face by the Department saying, well X or Y are doing well, why can’t you do as well? I’m always the one who tries to moderate that. (A)

I know that they promote a sense of competition, but I’m not sure that that’s the real where you want to be. (H)

At the hospital-level competition does not appear to be such an important issue. The general view is that nobody wants to be at the bottom but nobody wants to be at the top either. Achieving the targets is more of a motivator than performing better than someone else:

I don’t think competition’s been huge. We want to continue to perform well, but that’s not because we want to beat anyone, but because we want to have pride in the fact that we’re achieving certain levels of performance. The competition is within, not external. (A)

There is a sort of perverse thing in the public sector, isn’t there, where you don’t want to be last, that’s for sure, but you don’t necessarily want to be best though because you can always fail. You are a saint one month and you are a sinner the next. And there have been several examples of this where people have been held out to be absolutely brilliant and then performance has slipped for whatever reason and suddenly they are terrible sinners. I mean, you want to try and keep your head below the parapet and it’s very intense at the moment in health systems. (A)

I couldn’t give a rat’s how anybody else is going. I just hope there’s somebody worse than me … I’m right in the middle. Yes, I’m out of sight. You know, I don’t want anybody coming down to look to see what we’re doing because, you know, everybody’s got a few dodges going and I don’t want to be the boy who’s bringing up the rear so just in the middle will do me just fine. (H)

In terms of the GMs, do I look at performance across other hospitals? Yeah, but, I’m just worried about my place, I need to perform well for us and for here in our community, that’s what’s important to me. (H)

If you’re at the top you’re constantly being shown off out there and when you fall, you fail, cos we all fall at some point. Even the best will have a bad patch, and they do. The bottom, same sort of thing, you don’t want to be at the bottom … I just want to meet the targets. I don’t really care where we sit to be quite honest as long as we meet the targets because if we meet the targets, it means we’re getting people through in a very safe, effective way. (H)

I think the GMs at the moment have a great deal of sympathy for one another. You see the odd exception of someone who doesn’t seem to have a lot of insight, but the majority of people realise that, there but for the grace of God go I, and if the numbers are up at the moment, then sort of cross every finger, and feel sorry for those … We do get together now, and we never used to, so I think there’s a great deal of empathy in the room. (H)

This raises the important question of how best to encourage people to aim higher than just going for the ‘middle’. One way in which this can be done is by recognising (and rewarding) those who set their sights high but not punishing those who don’t make it.
One of the issues with competition is the impact it may have on collaboration – it is all very well to compete but it does not necessarily encourage the sharing of ideas, with the possibility of ending up with neither a culture of competition nor a culture of collaboration:

If you fail you get criticised. So there isn’t much motive, if you’ve got something successful, if you’ve got a secret ingredient, or secret weapon, there’s not much motive to share it with people. You keep it to yourself, so you can look good, so you don’t get criticised. (A)

There have been some competitiveness which has been destructive in the process in New South Wales Health over the last five years. Now, it depends how you approach it … There have been a number of examples where there have been degrading (of) the outcomes of some area health services by comparison with others, the favoured ones, and, quote, basket cases. Now that type of competitiveness is destructive and actually poisons the productiveness of competition … competition is important if it’s done for the right reasons and in the right way and it’s totally destructive if it’s used to degrade. It’s a values thing. It’s about values … collaboration won’t happen if we have competitiveness that is the bad competitiveness. If you are degraded and punished because you haven’t achieved you won’t collaborate. If you are at the top and you know that that’s what’s happened, you won’t sponsor the one that’s struggling because that’ll bring you into the being hit with a stick and being degraded, because the risk is too high. So I think that approach to competitiveness, that nasty degrading part of the risk with competitiveness, actually is a major impediment to further collaborativeness. And collaboration is the way to go. No question. (A)

5.2.4 Performance management, resources and clinical redesign

The HSIB is quite clear that the reform strategy has three components (CSRP, performance management and additional resources), with each supporting the other two. This begs the question as to which, if any, of these three components has made the most contribution to improved performance. Or, for that matter, to what extent have other factors played a part? We thought it important to ask senior managers about the issue of attribution so we asked them to talk about what they saw as the main factors impacting on performance. Elsewhere in this report we have included some reasons given by interviewees for improvements in ED and surgery performance. With regard to the general issue of improved performance the range of responses just about covered all permutations of the three components, with some additional factors:

I think if you pulled out individual projects, yes, it had virtually no impact. I think the impact comes from the fact that we’ve done over 70 of them so each of them has a small incremental impact but more importantly that we’re giving people evidence that people just like them can do things in their local environment which improves things … I’m still not quite sure what percentage each of those three contributes. I’m convinced that each of them is important and that we wouldn’t have been able to get the buy-in of the clinicians when we first started unless we’d said, yes, you’re right, for the last ten years there’s been a shrinking bed base, you’re right, we do need more beds, here they are … We wouldn’t have got the improvement unless we had introduced this robust performance management system. (D)

Resource is number one, there’s no question about that. Things that were already, already happening and would have happened at number two … I can’t actually see things being done differently, only more efficiently … intuitively, that’s going to be better, but it’s not actually a big change. As we all know, the big change in health that would really be clinical services redesign is a change around who does what. At this stage, there’s been virtually none of that … It was good old fashioned management efficiency, which is what the Accentures of the world excel at and they come in and they look at your existing processes and they work out ways to add oil to the wheels to make your existing processes more efficient. And that is largely what happened, particularly with the local projects and the statewide ones I think. (D)

I actually don’t think the performance management structure framework has changed the performance because I think it’s the implementation of the new models that has changed. (D)

I put number one the performance management system that emanated from the department. (D)
I think primarily there’s been two things. One, there have been some system improvements. However, the other thing is, the other reason for it is that they’ve just basically been driving people harder, you know, the performance measures … it’s just being driven from the centre extremely hard … driving people, getting people out at all costs … the driving people very hard part is unsustainable. (A)

To me the redesign does not stand on its own, it’s linked intimately with a method of managing the system, around achieving outcomes and reporting to management. It’s a catalyst for that, it models the behaviour, it supports it, but the real main game is driving the performance. What’s been labelled as redesign has really been a tool and catalyst and driver for a change in the way we manage the system. (A)

It’s incredibly simplistic to attribute increased performance exclusively to clinical redesign. When I reflect on the significant changes, number one, we had an area amalgamation. I think the area amalgamation and the change in structure put the focus on performance across the health service. The area structure really revised, and refocused us, on how we need to manage performance. The second thing was that we moved to a different management model, a structure of networks … that gave us, the management focus, on what we needed to do. Superimposed on that the area executive initiated daily access performance teleconferences so, it was quite clear that excuses on non-performance were not acceptable. (A)

The inevitable lesson when you look at why there is variation is a lesson around the culture of organisations. (A)

We’re getting very inventive but I’m worried there is a capacity issue in our system as well. I think that is part of the problem. (H)

A lot of the things that we did we were redesigning the way we did things and studying it ourselves. We didn’t use external people. We were actually doing it ourselves, so when a lot of these other external services came in to help us, a lot of it was validating what we’d already done, or supporting the model of care that we’re putting in, or finishing off things that we hadn’t gotten to yet. (H)

One interviewee gave a long list of initiatives that ‘came together’ to improve performance. These included the support of senior people in the Health Department, the work of forums such as the Surgical Services Taskforce, additional resources, policy changes, discussion and cross fertilisation of ideas (in the last 4-5 years), the Government Action Plan, Sustainable Access Plans, the Health Priority Taskforce and, finally, ‘sheer determination and bloody-mindedness’.

From the beginning of the evaluation the issue of attribution has been flagged as problematic and we are not in a position to assign causation to changes in performance. However, the component that was raised most frequently and consistently in interviews was performance management. Perhaps a useful way to think about this is as follows. The change in the relationship between the Health Department and AHSs resulting from the abolition of area boards was a necessary, but not sufficient, condition for establishing a more robust performance management framework. Performance management provided a mechanism for debate, analysis and decision-making about improving performance. Additional resources and clinical redesign, at both the project-level and program-level, provided some of the tools to support the debate, analysis and decision-making about performance. This viewpoint is best summarised in the following comment:

Discomfort is the mother of invention, isn’t it? You’ve got to create a level of people wanting to change before they’ll either make the process more efficient or they’ll think, guys, we’ve got to do this differently. And I think you do have to teach people that they can think differently, I think that is an important, you’ve got to give them some skills around it which is that redesign component. But people aren’t going to think or bother if they’re not focused on an outcome. There have been changes to processes; there’s no question there’ve been changes to processes and so on, but, and that’s part of the redesign. I don’t want to mean there hasn’t been redesign and the techniques around doing that have been good, but you don’t get those changes without first putting in place the performance pressure stuff, I mean, so it’s kind of the two of them seem to happen … if you get a process in place where you’ve got an outcome, you’ve got data and you have to analyse the data,
you get rid of the anecdotes, then you start looking at what’s really there, then you can start redesigning. (A)

5.2.5 Program governance

Within the Health Department the CSRP Program Office is part of the HSPIB with program management centred on the weekly CSRP/SAP meetings which link the two programs. In year 1 we made the observation that there was some variability across AHSs with regard to aligning and integrating CSRP with Area strategic directions, programs and structures, in part due to the learning process inherent in such a program. Some considered it to be a time limited program that, while important, is still essentially just a very large project (or rather, series of projects). Others saw it as fitting well with the strategic direction of their organisation and had positioned it accordingly. None of the area health services had quite the same emphasis as existed in the original Maggie program where Maggie was clearly seen as the central reform strategy for the (then) Hunter Area Health Service.

During the interviews in year 2 it emerged that there is still a range of opinion regarding optimum governance arrangements for clinical redesign, including issues such as how it links with clinical governance and whether it should be positioned within the director of clinical operations or director of population health, planning and performance portfolios within the structure of each AHS.

5.3 Stakeholder engagement, participation and commitment

5.3.1 Within NSW Health

The responsibility for leading and implementing the CSRP lies within the HSPIB of the Health Department. The other two components of the Department’s reform strategy (performance management and additional resources) have also been managed by the same branch. A key set of stakeholders is the other divisions of the Health Department. The Department is itself subject to changing circumstances like the rest of the health system. Senior managers within the Department expressed a wish for a more unified approach to the reform strategy:

The department isn't one thing, it's many empires and many territories … It's a new culture division in a very old culture set-up. The other parts of the organisation are much more old culture or much more traditional in the way they're structured and that's created a bit of tension. And styles have created some problems but generally speaking, I believe in the intent. The collateral damage along the way is a bit debatable. (D)

I think if you got out of (name)’s area, and maybe (name)’s division, other people are aware of CSRP but most people aren’t too switched on as to what it’s doing. (D)

CSRP tend to, in the main, talk within their own branch, and then they talk to areas. I don’t get a feeling that other branches in the department are actively pulled in, to say, are you doing anything vaguely related to this, or have you got anything to contribute. (D)

The issue that we’ve been thinking about is if the goal is to change the culture and it is about transformational change and all that sort of language, can one division do that in a way that’s sustainable. I mean, surely it would require the whole department rowing in one direction? … They (the Health Services Improvement Branch) had a specific set of issues they were to deal with and they were going to get on and deal with them. And that’s fine but you can’t operate in isolation in a system like this. So I think there needed to be less competitiveness and more dialogues between the divisions. (D)

Senior managers working outside the Health Department also made some observations about what they perceived to be a certain lack of cohesion at the Departmental level:

Our leadership team at the area level have done a lot of work about signing on to this, and are owning this and supporting the fact that this is really important to us as an organisation. I don’t get
that same sense from New South Wales Health; I get it from one of the deputy director-generals but I don’t get it from the senior leadership team. And I don’t think that work was done well enough up front to say as a system, if we really value this and see it as important, how do we ensure that the leadership team take that on and own it, and everywhere they go express support for the programme. That doesn’t happen. (A)

I think the reform that (name) was trying to drive was based on trying to create a unified department, trying to clarify the role of the department versus the areas. Like many of the things that Health started or starts, we started that process but I don’t think we ever reached a real conclusion about the roles and responsibilities and then actually followed through in terms of doing the work that was necessary to follow that agreed direction. (A)

The performance improvement branch or whatever they’re called, is trying to evaluate clinical redesign. At least that is an attempt to do something properly. Put it in, measure it, work out how to improve it. It is unfortunate however that that is only one part of the department of health and the rest of the department of health is off doing its own thing. So it’s very hard on the receiving end to disentangle all of that and I think that is a problem for all people who are managing the receiving end or managing the service side, that the constant demands from the department are very difficult. Particularly for information, I think this stuff’s good because the information is clear, it’s understood, it hasn’t changed and you know what you’re reporting on. But the constant demand for information from all over the place from the department of health, most of which we know is never used and never looked, is an enormous waste of everybody’s time and energy. So if the performance improvement branch could spread the philosophy of being clear about what information it wanted and used to the rest of the department that would be great. (H)

I’m never quite sure if the various portfolios within the department of health actually talk to each other. (H)

There is already a feeling in some quarters that this may be about to change with the recent appointment of a new Director General:

The new DG has been fostering a tone of working across divisions much more explicitly, bringing advice on the basis of joint discussion rather than, perhaps, one division putting some things up. (D)

With (the new DG) in here now I think that will become a department approach. We’re working on how we bring workforce and clinical redesign together. (D)

Greater unity would assist with the potential role of the Department in changing the culture of the NSW health system (Section 7.2).

5.3.2 Consumer involvement

Quite early in the CSRP the internal Program Review in February 2006 noted many frustrating experiences regarding consumer involvement and suggested that this may be due to a lack of confidence and skills in working with consumers rather than a lack of commitment to the concept. Consumer involvement was seen as an area requiring more support and attention. The subsequent CSRP Consumer Involvement Report in June 2006 include some key findings aimed at improving this situation – using existing expertise in consumer involvement within CRUs and community participation staff within AHSs; improved training, coaching and resources for CRU staff; and a stronger imperative for external partners and CRU staff to involve consumers in redesign programs.

When we surveyed projects we asked two questions about consumer participation in CSRP – to what extent did consumers participate in the project, and to what extent were consumers able to influence the project? The results are presented in Figure 53. In our first report we noted the wide variety of approaches taken to involving consumers, in a rather patchy way across CSRP projects.
There are two main strategies for incorporating information from patients into the CSRP:

- The work on patient and carer experiences being undertaken at a project level (see Section 4.1.2).
- The work of VEM on the patient journey that is providing feedback at a program-level (see Section 4.1.3).

5.3.3 Clinician engagement

We reported in our first report that clinician involvement throughout all stages of the project is seen as essential. In general, involvement of nursing staff, either in project management or project implementation, is extensive and far greater than other professional groups. Many nurses are either working in CRUs, have been seconded to lead projects or are in positions with responsibility for implementation e.g. patient flow managers, discharge planners. The degree of involvement of allied health and medical staff is more variable. Salaried medical staff had more involvement than visiting medical officers.
Interviews in year 2 yielded a diverse range of comments, generally consistent with what we found in year 1. There is general agreement that involvement of clinicians, particularly medical staff, is critical to the success of clinical redesign, and this requires an emphasis on the quality and safety aspects of redesign:

“You can do a lot of it around them (doctors), but in the end if you want to make long term sustained changes they need to be on board. Absolutely. I mean they're the expert resource in your system … When you want to engage clinicians you have to talk about safety, quality and safety. We all know that to really, truly engage clinicians you need good quality measures but they're so hard to come up with.” (D)

“The sustainability's in question because people see it as just about driving staff harder; it's not about improving the, the patient's experience or outcome. And we think part of not engaging the senior clinical staff has been because they see those things as important and that yet the things we're focussed on with the redesign haven't been about the things that actually they want to do, but they want to see improved and that they want to see benefit their patients.” (A)

“We've got a very good clinician buy-in here which I can't imagine how anyone else could manage it without the level of buy-in that we've got, and I'm very fortunate to have that.” (H)

Most of this would not have been possible without a critical threshold of willingness amongst the senior meds to have a go, to get close, stay close, and be genuinely open in the communication that we've had about what's needed to be done.” (H)

There was some concern that not enough has been done to engage medical staff, at least in some quarters, as indicated in this comment (about medical staff):

“It's like circling wagons, because, they're in the middle. We keep circling the wagons around them and we're not getting in and actually lighting the bonfire underneath them and the redesign program hasn't addressed that at all in any of the programs … we've got some really great champions, but one or two across an area of health service is not going to make the difference we need for sustainable change.” (A)

These comments reflect similar concerns to those identified in the implementation checks (see Section 5.6.3) where the issue of medical staff engagement or support was mentioned in the reports for 16 different projects, usually because of the lack of engagement/support, with a general theme that when support from medical staff was present implementation ran more smoothly.

Given the CSRP aims of engaging clinicians and ‘breaking down silos’ one of the tests for this approach is engagement of allied health staff, primarily because this group covers such a diverse group of health professionals. This presents a very practical challenge in terms of who to involve and how. In year 1 we noted that engagement of allied health staff appears to be quite variable, ranging from engagement in all projects in some area health services to engagement only in some projects in other area health services. This appears to still be an issue in some quarters:

“I think allied health is the most unsung group of people, they are major players in patient flow, and there's not a really good understanding about that. I can have people waiting for social work assessments and physio, I don't think there's a real understanding about that, and I don't think the clinical redesign project had engaged as a project strongly enough around that … when I actually look at the changes that have occurred, if allied health were sitting here, they'd probably shoot me down, I think they're the group that have least changed their practices. They've improved their practices but they've not changed, and there's a difference. I think they are very set, very specific about how they deliver services, and it's very hard for that group to change … I just think they are very professionally directed in the way they do their business, they are quite insular around that.” (H)
5.4 Effective local improvement teams

One of the stated intentions of the CSRP was to ‘break down the silos’ between traditional professional groups in health. In the first year of the Program there was some evidence that this was happening at the level of individuals and groups of individuals:

(The discharge planning meetings have) given all staff a better understanding of, number one the patients, and an understanding of each other's roles and the timing of things and the pressures of other health professionals … it's given staff a broader understanding and given them a common goal in making this work. (P)

We now have a lot more interaction between the community teams and the inpatient unit, and also our emergency mental health staff and the inpatient unit – it's certainly removed some of those artificial barriers that existed. (P)

Again, this is consistent with the findings from the VEM work:

CSRP seems to have had some success in generating a sense of mutual dependence (as opposed to working in silos), particularly between EDs and other areas of hospitals (VEM 2007, p 41).

The main way in which this has manifested itself is a shared sense of responsibility between those involved in patient care, particularly around patient flow issues e.g. between emergency departments and the rest of the hospital for access block. This was reflected not only during interviews for this evaluation but in some of the responses to the survey of projects and is consistent with the findings from the evaluation of the ABIP (Duckett, Dwyer et al. 2005).

The survey of projects asked for a description of ways in which teamwork was improved. This could either be the teamwork of those involved in the project or the teamwork of those implementing the changes resulting from the project. By far the most important strategy was regular meetings across disciplines or departments. These meetings might be between two departments (e.g. operating theatres and intensive care), between many disciplines around discharge planning, or between emergency departments and the rest of the hospital.

Interviews in year 2 did not specifically explore this issue but when it did arise in the course of interviews the responses supported the findings above:

The getting the people across discipline in a particular hospital to get together and actually plan the way that a patient might move through and how that might be improved, I think’s been really positive and I think we probably need to take it on the chin that on a facility basis it’s probably something we should have been doing before, but we weren’t because we, we’ve developed over time a fairly siloed approach. (D)

The organisation today is characterised by a much higher degree of dialogue and participation by many key people in the management of the organisation, and by that I mean the management of the patient care process. We also know much better now how to relate to each other in a much more efficient way in managing certain aspects of the hospital. (H)

It really allowed us to engage the different craft groups and medical and nursing groups on the wards about their role, their role in keeping access block down, by having the beds available at the back end of the ED. (H)

One of the key issues is whether local teams are effective when it comes to implementing solutions - do local teams now have the skills and capabilities to implement and sustain improvements? This cannot be answered from a high level overview of the program and requires some project-level evaluations or case studies to find out what is really happening in terms of implementation.
5.5 Leadership and management

5.5.1 Leadership and change management

There was a consensus amongst those we interviewed in year 1 regarding the critical importance of leadership, particularly relating to managing change. When it came to interviewing senior managers there was agreement at all three levels (Health Department, AHSs, hospitals) that leadership was of vital importance. This is consistent with the literature on change management and implementing total quality management, e.g. Hoyte and Greenwood state categorically that ‘The connection between such business transformation and leadership is an important and recurring theme. Without effective leadership, business transformation will not succeed and the strategic vision will not come to fruition’ (Hoyte and Greenwood 2007, p 91).

Of all the key success factors for organisational change, leadership was mentioned most frequently, particularly when it came to EDs:

- If your leadership isn't strong and prepared to make decisions and know how to work the political process and the system from the director-general down, I mean their own system, well, you're always going to have problems. (D)

- Where we've seen more sustained ongoing results, is perhaps where they've had stronger leadership. (A)

- You've got to have executive leadership looking across this whole system at a systems level constantly. (A)

- If your chief executive is engaged to drive all those principles of care or getting patients through to the point of access, right person at the right place at the right time, and if you keep patient-centred, if that's your focus at all times, you will achieve, but you have to have that person up there committed to drive it through, and it's a lot of hard work. But the rewards are enormous. (H)

- ED’s function effectively, when you’ve got a good num and a good director and if you haven’t got the two working together and singing from the same song sheet you’re not going to get anywhere. (H)

(Leadership), it’s the critical factor … you spend half your life micro managing things, because that’s what they all want you to do in terms of patient flow, but that’s not the critical factor, the critical factor is about the leadership. You set the tone of the organisation … but it’s not only leadership from the Department it’s also leadership from the area health service and I think at times, there is a struggle around that. This area health service has a very different sense of leadership and that’s something that I’ve had to come to terms with, in terms of how it does it’s business … In this area health service, I think at times there is a lack of trust around the capacity of GMs to do what they’re basically empowered to do. (H)

Variation in leadership

The importance placed on individual leadership seemed to vary by type of project. Again, this is not surprising as previous research has demonstrated how context or situation determines which leadership approach will be effective, e.g.(Hersey, Blanchard et al. 2000). For projects in defined clinical areas such as emergency medicine and mental health, the role of effective clinical leadership, particularly from the medical director, can be crucial to the success of the change project:

- The ED director is a real champion for change. They work really well, the nursing manager and the ED director work fantastically together, they’re really enthusiastic. Some of the senior physicians down in ED are really change-focused. (P)

- We had an area director and he was very much on-side with the change which pretty well guaranteed that those down the line were going to be (with a mental health project). (P)
Surgical projects can be led by people such as surgery managers and facility managers, with support from surgeons. Patient flow projects are more problematic due to the large number of people involved – it usually falls to nurse managers and facility managers to provide the necessary leadership. The leadership has to come from somewhere:

*If you don't have positive drive up there nothing gets done here… you can do as much as you want down this level but it doesn't go anywhere… we've got great people up top who are positive-minded who want the best care for the patient and they want the best out of the organisation.* (P)

Those working in area executive positions identified leadership at a local level as a key factor in explaining variations in performance:

*At XXX it's probably the best example of a redesign program and redesigning the way they deliver services with medical involvement … it's got a clinical leader in there who's from overseas, who's quite innovative and prepared to do things, has worked in a different system, prepared to do things differently, prepared to challenge them all, prepared to lead the doctors and that's worked well. So, I think if there was an example where clinical redesign works well, has got good clinical engagement from across the board, has remodelled the way that the patient flows through an ED, then that's an example that would be worth demonstrating.* (A)

*(Hospital) was our star performer, engaged particularly well with the process, and achieved significant access improvements, through the emergency department. I think, in part, that was attributable to a number of things, strong executive management and leadership buy-in we had, and the good working relationship that they developed with the consultants that were engaged … the point is to, unless you've got some clinician leadership and management to drive the solutions, it's not viable, or not sustainable.* (A)

Only one person talked about different types of leadership:

*I think we're talking around two types of leadership. One is the people who can enthuse people and drive and establish change in the first place. Then you're talking about the people who can maintain that change.* (A)

This prompts the question of whether there is a common understanding of leadership within the health system such as has been defined by the NHS with its Leadership Qualities Framework (NHS Institute for Innovation and Improvement 2006). There are many references here to 'needing strong leadership', but in the above examples, this seems to mean different things to different people. For some, it means the ability to work the political process, for others the ability to engage with external partners, for others a willingness to challenge the status quo. It is noticeable, however, that there are no references to leaders being excellent communicators, to the leadership role of developing people, or to leaders coaching others, the skills required of leaders in today's organisations, according to contemporary leadership research – ‘Medicine in order to make that transition into effective twenty-first century care, must, in addition to integrating technological advances into therapeutics, focus on the human dimension of interpersonal and organization structures. Coaching is an essential tool in making that transition a reality’ (Henochowicz and Hetherington 2005). One of the senior managers interviewed did mention a need for 'pretty intensive coaching' but for others, the people skills of leadership did not emerge unprompted.

**Systematic leadership and sustainability**

Leadership does not take place in isolation. The various positions nominated as being the source of leadership (Director General, area chief executives, hospital general managers, clinical leaders) indicates the importance of having a system of leadership, rather than just having one or two individuals in key positions. Some of those we interviewed recognised this:

*We've got more alignment at the different levels of management and enough people who are thinking that way, that one person going is not as critical as it used to be. So I think that's the difference I see, is that the sustainability is actually built about the whole team at all different levels starting to think that way, and being supportive of the organisation and each other … We made a very clear decision that we were going to, at the senior levels, put people into the senior management roles who were demonstrating the behaviours, the style, the values that we want as an*
organisation, which is how they approach things, and the fact that they’re good role models. And so we deliberately did that and now we’re starting to filter that out to service manager level as well. And I think that’s hugely powerful and beneficial. (A)

That’s what leadership’s about, putting yourself at risk. So it’s almost about training a system of leadership rather than a leader … There’s got to be clinical leadership but there also has to be leadership from the top of the organisation from a management point of view. (A)

One hospital described how they sorted out local leadership issues before commencing a project:

We had to make sure we had decent leadership in the department and we took some hard decisions and made changes there. We worked really hard around the physical redesign and then we worked hard around the clinical redesign. You’ve got to get your leadership right. So, one or two of the lessons, you can’t just come in and overlay systems in a department that’s poorly led or in a culture that dysfunctional or not supportive. (H)

The inference is that for projects to be successful, the correct infrastructure and good leadership needs to be in place. Hence some key recommendations for ensuring sustainability relate to leadership development, based on a rounded view of leadership, shared across the health service. The Healthcare Leadership Alliance in the US stresses that ‘many leaders who can attain very impressive outcomes in the short term are unable to maintain them over time because they underperform on process; for example by failing to build capacity within their staff’ (Garman 2006).

The importance of leadership for sustaining the improvements made is reflected in the work of VEM:

While stakeholders repeatedly pointed to individuals whose personal commitment and persistence in launching CSRP would serve as outstanding examples to future leaders, there was a counterbalancing concern that the program may be too heavily reliant on personalities. Unless the Department is able to institutionalise change, it is feared the gains will be lost and progress will be reversed. (VEM 2007, p 83)

The external partners we interviewed in year 1 also saw different leadership styles as having a significant impact on the outcome of CSRP projects. It is much harder where the leadership agenda is not aligned with CSRP. The consistent view from inside and outside the health service is that the quality and depth of leadership capability should be addressed as part of CSRP, including education/training on how to raise awareness and create a shared vision.

A key issue is not so much the use and further development of a performance management framework but how to lead organisational development AND design. ‘to address the question of how leaders and change agents can actually begin to intervene in and manage the complex dynamics of cultural change’ (Bate, Khan et al. 2000, p 199). It has been argued that ‘it [is] possible to develop a collaborative change process in which the organization rather than the executive [takes] ownership over the process. Leadership could then happen at all kinds of levels and in all kinds of ways. This emerging collective leadership process [can then] be key to integrating structural and cultural change, as, in essence, through dialogue, debate, and action [emerges] collective sensemaking’ (Weick 1995). So, ‘it [is] not the act of sense being given to people but instead, through their collective sensemaking, there [grows] a strong feeling of ownership and commitment to making things happen, crucial to the enactment of structure and culture’ (Bate, Khan et al. 2000, p 208). In our view CSRP should not simply be focusing on individual leaders as driving change, or at restructuring being sufficient to achieve goals, but rather seeking to have leadership of change as something that is shared across organisations so that the critical mass of support for change can begin to grow and develop, and as natural local line leaders (Senge 1996) began to emerge from a number of different points.
5.5.2 Understanding the business of health

The business case for CSRP stated that ‘culture change and management development need to be embedded in the approach from the first day in order to achieve sustainable solutions. Eventually there can only be one culture state wide’ (p 29). It was originally intended to undertake a specific piece of work looking at the culture of the NSW health system and how it might change over the course of CSRP, which would inform, amongst other things, the external evaluation. However, prior to the external evaluation commencing, the Health Department narrowed the focus somewhat when it commissioned the Management Participation Study by VEM, where the emphasis was more one of asking ‘has the way things are managed changed?’

In various discussions with senior managers from the HSPIB they identified to us what they saw as a ‘change in mind-set’ and ‘more of a can-do attitude’ amongst the managers they deal with in the health system:

*The language of the people that I talk to out there in the areas is much more along the lines of can-do attitude.* (D)

We sought to explore this ‘mindset change’ issue in the interviews with senior managers in year 2. When it came to interviewing managers outside the Health Department nobody used the phrase ‘can-do attitude’ and only three people used the term ‘mindset’, of which only one used it in the context of changes in attitude. Rather, interviewees framed the issue in terms of ‘understanding their business better’ and ‘responding to problems differently’, indicative of a more performance driven orientation. This is not inconsistent with the HSPIB view, which was further explained by one interviewee:

*Compared to two years ago, and I think this is especially more so true for the general managers than the CEs, they’re actually aware of their business a lot better, so they know that they got to where they’re currently getting in terms of good performance because of all these things that they’ve done, which they can tell you, plus a bit of luck, but they’re very aware still that there are these risks which exist … The general managers now are much more aware of what are the drivers which makes their performance good or bad.* (D)

What we found was general agreement at all three levels (Department, AHS, hospital) that over the last two years there has been an improvement in managers’ ‘understanding of the business’, with a stronger orientation towards efficiency, achieving results and using data to support decisions:

*I think people understand their business a lot more … they’re a lot more responsive to changes … When you know your business and you’ve got good data and you respond to it in real time, you can actually make a difference.* (D)

*The people that we actually work with, with clinical redesign, haven't necessarily had a change in mindset but they actually understand more of what they're doing.* (D)

*The most significant improvements have been knowing what you don't know, knowing what you need, knowing what information you need to actually build into your forward planning, knowing how it translates back down to the type of work force you need.* (D)

*I think they (managers and clinicians) understand the business of health better. But I think the other good thing that it’s done is it’s given people a chance to put their own creativity into the process.* (A)

*Instead of just wandering around like particles in Brownian motion in the middle of a bowl of porridge, people start actually focusing on the job they’ve got to do and get on and start trying to solve problems with a goal. And I do think that in some respects we’ve begun to see some changes in that … in the way we operate and the way we focus on outcomes and drive the results and then think around problems and apply solutions, we’re beginning to actually identify problems clearly, take action in a timely fashion, follow through on those, and apply some more rigorous tools.* (A)
We used to tear our hair out with some of the (within AHS) access meetings. All the discussion around access performance in emergency department centred on the proffering of excuses why the result hadn’t been done. What was extremely heartening, and it took some of the hospitals a long time to start to get to that way of thinking … it’s a lot more proactive in taking control of the situation, and managing it, rather than being a victim to the circumstances. So, that, I could, without a doubt, say there’s been a significant change shift in the way we think and talk about managing access. (A)

I think there is much more concentration on process improvement. Much less complacency, much less of let’s all throw our hands up in the air and there’s nothing can be done and it’s always been like this and we’re never going to change anything, we’ll just wait until the next administration moves through. I think that’s changed. I think there’s a more professional attitude. (H)

We actually didn’t have a collection of machinery that enabled us to know how the hospital has performed … We’re certainly not the same organisation we were three years ago, demonstrably not. There is no doubt that if we had this acuity of presentations this winter at the same volume of presentation three winters ago, I don’t know what we would’ve done … We have a sharpness. We have an openness of debate and attack in the bed management meetings that was never imaginable three years ago. Senior clinicians still come and debate the issues and there’s a high level of generous give and take in those meetings, and a high level of commitment to give things a go. I can’t tell you how many times data has demystified beliefs, assumptions and religions in the organisations about why things are the way they are … Management and clinicians, actually have a different appreciation of the need to know the business. (H)

Two or three years ago, it was nobody’s problem. Nobody was really interested in it, and it was virtually ED against the rest of the hospital. What we successfully achieved was changing the culture about ownership of a problem. (H)

What I have found is that there’s always the challenge of, these are the facts and what are you going to do about it but I find these days now that I’m able to sit down and discuss and negotiate and, and provide clear information back … It’s not an easy job and I don’t think it ever has been and ever will be and I have days when I wonder why I do it but I think that in some aspects at least I’ve got information that I can argue from now. (H)

If we’ve driven a cultural change, that cultural change of use of data about making informed decisions on good data has been a significant improvement, major improvement. We’re much better informed about what’s actually happening in the place, where as before it was, not so much anecdotal, a bit of gut, a bit of this … people are thinking practically about what the data’s telling us, do we need to do something different. (H)

These findings are consistent with those from the evaluation of the ABIP which found that one of the capabilities that underpinned success was ‘the capacity to bring together better performance measures and understanding of the steps in the patient journey and use them to better manage the whole patient journey’ (Duckett, Dwyer et al. 2005, p 30). The VEM Management Participation Study concluded that ‘the attitudinal change attributed to CSRP seems to dominate stakeholder’s perceptions of the program’s success. The changed dynamic and can-do-attitude among managers is energising and empowering staff throughout the system’ (VEM 2007, p 56). While recognising what we have said above about greater understanding of the business of health and a different attitude to solving problems we are more cautious about the extent of this change than VEM and would hesitate to describe it as ‘energising and empowering’.

This can be summarised as a stronger business and performance orientation, moving:

<table>
<thead>
<tr>
<th>FROM</th>
<th>TO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Process</td>
<td>Results/improvement</td>
</tr>
<tr>
<td>Inputs/throughputs</td>
<td>Outputs/responsibility</td>
</tr>
<tr>
<td>Anecdote</td>
<td>Data/measurement</td>
</tr>
<tr>
<td>Can’t do / won’t do</td>
<td>Can do</td>
</tr>
</tbody>
</table>
Whether this re-orientation is universal or adds up to a sustainable change remains to be seen. However, the changes are in the right direction.

5.5.3 Management capability

An issue repeatedly raised during interviews was the management capability of existing managers in the health system. This was recognised as an issue in the original business case for the CSRP and was seen by interviewees as a system problem:

*It's something we identified right back in the Access Block Improvement Program, that there was a problem with the competency of the middle level of management within our system and it was our fault. It was our fault because we did things like promoting people who were the best technologically, or clinically, within their domain, like the best nurse in the ward, or the best doctor, and we made them the head and we assumed that because they were the best they would have all of the skills you'd need to manage 80 staff in that unit, and of course they don't. Not only don't they necessarily have those skills, some of them do, but many of them don't, we don't then give them those skills.* (D)

*The level of management that we have, the skills of our managers, the selection of people that go into management positions, has historically been poorly done.* (A)

*Across the system I think we've underestimated the requirement to focus on capacity building amongst the people that will drive change. We've made a number of assumptions that because you've got to a certain level, then in some way you have got a core skill set and my assessment is that assumption is often not true.* (A)

Much of this is seen as arising from the fact that many managers started life as clinicians and have progressed to managerial positions without developing or acquiring the skills required for their new roles. Some interviewees suggested that the issue of having sufficient management capability was more problematic in rural areas.

*It is partly about getting the right people but it's also about skilling the people that we have. I don't think it's simply a question of, if only we had the right people. You've got the people you've got, stop looking around for someone else to solve your problem ... It's about accountability and behaviours, and one of the most profound things at that level is that I think our managers generally come up from a clinical background and they come up with a set of views about management that are not what management's about.* (A)

*Within my team some of my managers leave a great deal to be desired. Some of them, again traditional nurses that have come up through the system, that are managing facilities and keep forgetting that they're managing facilities and not just the nursing division so that just working with them to broaden that view has been a challenge but we'll continue to work on it.* (H)

We are aware that the HSPIB has commenced a project with the Nursing Branch within the Health Department to examine the role of nursing unit managers. We see this as a sensible development, if this comment by a hospital general manager is anything to go by (and we think it is):

*Any cultural change relies on really significant engagement of middle managers; they drive in essence the message and the change process. I can tell the organisation 55,000 times a day what they've got to do, but if there's a department manager who says, huh, we're not doing it, it won't happen. So that's where the engagement needs to occur. I think we ask an enormous amount of our middle managers, you know you've got NUMs now who we are expecting to get involved in patient flow and practice changes in their department and they're off doing bloody Kronos and all these other things, how much can we ask of them in a practical sense, I mean that's the reality, and I think that's the issue, so I think there really is an openness to want to engage about it, but, they've only got so many hours in the day.* (H)

Other initiatives such as the redesign school and the E-learning platform are clearly aimed at addressing this issue. One word of caution with regard to the E-learning platform is that it is just that – a platform on which to locate other things. Consideration should be given to broader issues
such as how the E-learning platform might be used to facilitate the development of communities of practice, which can only be done with face-to-face dialogue.

5.6 Implementation

5.6.1 Project scope

Projects in the CSRP can be characterised in a 3x2 matrix, as shown in Table 11. The identification of each project is included in Appendix 3. The numbering system has been used solely for the external evaluation.

<table>
<thead>
<tr>
<th>Project scope</th>
<th>Defined clinical area e.g. surgery, mental health, emergency medicine</th>
<th>Diffuse clinical area e.g. patient flow</th>
</tr>
</thead>
<tbody>
<tr>
<td>Facility-based project</td>
<td>CHW 1, GW 2, HNE 3, NC 1, NSCC 2, SESI 2, SESI 7, SESI 9, SESI 12, SW 4, SW 5</td>
<td>CHW 2, HNE 5, NC 2, NC 3, NC 4, SESI 1, SESI 3, SESI 4, SESI 5, SESI 11, SSW 3, SSW 4, SSW 5, SSW 6</td>
</tr>
<tr>
<td>Area-wide project with facility implementation</td>
<td>GS 1, GW 3, GW 4, HNE 6, NSCC 1, NSCC 3, SSW 1, SSW 2</td>
<td>SW 3, HNE 2</td>
</tr>
<tr>
<td>Area-wide</td>
<td>SW 1, SW 2, SW 6, HNE 1, HNE 4</td>
<td>Aged care: GW 5, HNE 7, NC 5, NSCC 4, SESI 13, SSW 7</td>
</tr>
</tbody>
</table>

The categorisation of some projects is open to debate, particularly the extent to which area-wide projects rely on facility-based implementation, but it can nevertheless be seen that there has been a strong concentration on facility-based projects, with the exception of the aged care projects that have all been commenced in 2006/2007. The scope of an individual project can have various dimensions:

- The scale of the project objectives (how ambitious is the project?).
- The size of the project in terms of either clinical areas covered or geographical spread.
- The way in which the project is managed i.e. to what extent is there evidence of ‘scope creep’?

We identified in our first report that area-wide projects have the potential to be more difficult to manage, and this was supported by a senior manager we interviewed in year 2:

*I think the scope of the project just got too big, and there was no real framework to drive it forward with, and I'm still waiting for the outcomes to be delivered … that project was impossible to implement, and it wasn't good, and we didn't get any better at it, we got worse.* (H)

There were early indications in the responses to the Year 1 survey that (overall) more narrowly defined projects had achieved a higher level of clinician engagement and that this active engagement extended into the implementation phase, suggesting that more narrowly defined projects may prove to be more successful in the longer term in terms of achieving sustainable improvements. This observation is supported by the findings from the evaluation of the Maggie Program which found that the most sustainable achievements were indeed from more narrowly-focused projects. In Year 2 of CSRP there has been a greater focus on large area-wide projects e.g. the aged care projects in seven AHSs and the booked surgery project in HNEAHS. It is too early to make any comments about how the scope of these projects has influenced implementation.
5.6.2 From diagnosis and solution design to implementation

In our first report we identified that responsibility for moving from the solution design to implementation varied from area to area. At one end of the spectrum managers are expected to implement project solutions because that is seen as part of their routine job. At the other end of the spectrum is 'supported implementation' which consists of using external partners and some backfilling of staff to assist with implementation, after which implementation becomes the responsibility of the respective managers. We expressed concern in our first report that there is a certain 'disconnect' in some cases between the initial upfront component of a project (diagnosis and solution design) and the much more difficult, but much less visible, work of implementation - actually making it happen (the voltage drop between plan and action). This concern was echoed in year 2 by senior managers at all levels:

I just like the metaphor of installation versus implementation. It's the classic, we've installed this piece of software, we've loaded it, it sits there and you did a day's training, nobody uses the bloody thing and, so we've got none of the benefits of it and undoubtedly there are some projects that we've very successfully installed but we haven't implemented them because the implementation part has to also include the review and the adjustment and some times the disinvestment of it, because it doesn't work anymore. (D)

The fact that we've had problems with implementation reflects the fact that we haven't enough realised how difficult implementation is compared to the first two phases, diagnosis and solution design, which is why we're really pushing the standardised implementation methodology, the AIM methodology, and the manifestation of our perception that it wasn't as difficult as it really is was that the way that we structured the contracts with the partners in these work orders was that we tailored off the involvement of the external partners in the implementation phase as if, you know, we're giving you the solutions, go off and implement them. And, of course, anyone who does change management theory would know that implementation is the hardest thing ... I think we'll get better and better at implementation. (D)

I'm still anxious about the area-wide projects … we've learnt to be very clear about the scope; to be much more resource intensive, so the breadth and scale of them is much larger, so you need a large team of people and you need to spend more time trying to engage effectively across the organisation. And the key thing is not just the redesign part it's the implementation phase and what we've learnt is that the implementation is absolutely critical. (A)

Over a period of time, there's been a number of redesign programs, none of which seem to have made a difference. If you look at what's been achieved in that period of time, you'll see that a number of the recommendations have been achieved but a number haven't, and there's not enough closing the loop to go back to those and say okay, where are we with the implementation, and some of the more difficult ones to achieve just haven't been done. (A)

It's really a lot easier to do the diagnostic phase and the solution design, and the implementation is where we really struggle. (A)

I think the scope of the project just got too big, and there was no real framework to drive it forward with, and I'm still waiting for the outcomes to be delivered … that project was impossible to implement, and it wasn't good, and we didn't get any better at it, we got worse. (H)

As a concept though it needs to develop a capacity to work at the implementation stage, and it's not got that at the moment and it actually lacks credibility because of it's lack of teeth to do that. So if you saw parts of the team remain with the organisation for a longer period of time, to actually work on that implementation and to do the hard yards, then I think it's got absolute capacity to roll on for a number of years. (H)

Implementation is not just a technical matter but an organisational and organisational development (OD) matter as well, one that is about building ownership and commitment to change and weaning people away from traditional processes and practices and not just plugging in the new solution.
OD and change management skills are therefore paramount if CSRP is to be successful. This was well expressed by one of those we interviewed:

*I think it’s all about the softer things that go with those interventions. About how you get the people to see the value of the interventions, how you talk to people about it, how you get their feedback about it, get their ownership, how you just make them feel involved in what they’re doing. I think it’s really all about that.* (D)

The Health Department has contracted a company called Accelerated Implementation Methodology (AIM) to conduct training for health service staff using their methodology for implementation. All those we have spoken to who have attended the training have found it to be very useful, particularly for understanding the issues of stakeholder management and the role or project sponsorship. At this stage it is too early to assess the impact the methodology will have.

One issue raised by a couple of general managers concerns the ‘unit of implementation’, arising from the developed of area-wide networks and clinical groupings:

*I think the system is still a bit schizophrenic because it hasn’t quite worked out what the unit of implementation is and that’s a bit of a problem. If you’re going to implement new models or new ideas or new systems or new anything, you have to decide whether you are implementing it as a system, a total health system. Are you implementing it as a network? Are you implementing it as a hospital? Are you implementing as a clinical grouping? And until you’re clear, and you might involve all of those at different times, but at the moment it is schizophrenic.* (H)

### 5.6.3 Implementation checks

External partners were contracted to undertake a review of progress with implementation in each AHS, including statewide projects, in early 2007. The findings from these ‘implementation checks’ for those projects undertaken within individual area health services are reported here i.e. excluding implementation of statewide projects. Data were available for 29 projects.

The reports used different formats depending on the external partner, making comparison and identification of recurring themes somewhat problematic. Some reports identify who was consulted in the preparation of the reports, some do not. In many instances different terms are used which may be close in meaning but may incorporate differences e.g. engagement / buy-in, preparation / orientation, support / engagement / leadership by senior management. The people in area CRUs and the Health Department who we have spoken to about these implementation checks were generally of the view that the checks had been done too hurriedly and were not very useful, adding little to what was already known. Any findings should thus be treated with caution.

All reports were read prior to any analysis being commenced. Each report was then read and comments extracted for inclusion in an Excel spreadsheet. The source of each comment was identified by the project number (as per the numbering scheme used in our first evaluation report). Some comments were from summaries across an area health service and in those cases the particular area health service was identified with the appropriate abbreviation e.g. HNE, SSW. The focus was on comments that might explain differences in the experience of implementation. Each report was then read again to check the accuracy of what had been extracted and identify additional comments of material importance. All extracted comments were reviewed and sorted into domains similar to the ‘key success factors’ used as part of the evaluation methodology. Similar comments were combined. The results are summarised in the Table 12 which is limited to issues that were identified in three or more projects.
### Table 12. Issues identified in implementation checks

<table>
<thead>
<tr>
<th>Domain</th>
<th>Comment</th>
<th>Project / Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contextual issues</td>
<td>Staff hesitant to make change / resistant to change</td>
<td>GS 1, NSCC 1, NSCC 2, SSW 5</td>
</tr>
<tr>
<td></td>
<td>Other (positive) system changes occurring at the same time or already in place</td>
<td>SESI 2, SESI 1, SSW 5</td>
</tr>
<tr>
<td>Ownership</td>
<td>Implementation primarily owned by nursing staff</td>
<td>SESI 3, GW 3, NSCC 3, NC</td>
</tr>
<tr>
<td>Project scope</td>
<td>Challenges arising from area-wide scope of project</td>
<td>HNE 1, HNE 2, SW 3, GW 3</td>
</tr>
<tr>
<td></td>
<td>Variable uptake of hospital-wide solutions in individual wards/departments</td>
<td>SESI 4, SESI 5, SESI 11, HNE 5</td>
</tr>
<tr>
<td></td>
<td>Staff don’t see change as beneficial / disengagement of staff after project commenced</td>
<td>SESI 4, SESI 3, SESI 1</td>
</tr>
<tr>
<td>Project establishment</td>
<td>Staff feeling that solution imposed / lack of consultation</td>
<td>SESI 5, SESI 1, HNE 5</td>
</tr>
<tr>
<td>Project management</td>
<td>Changes/discontinuity/illness in project leads negatively impacts on project</td>
<td>SESI 5, SESI, HNE 5, GW 2, GW 3, SW 3, NC 3</td>
</tr>
<tr>
<td>Leadership</td>
<td>Success largely dependent on support and ownership of senior staff in relevant department(s)</td>
<td>SESI 2, SESI (ED and Discharge), HNE 1, HNE 2, HNE 5, NC, GS 1</td>
</tr>
<tr>
<td></td>
<td>Strong senior exec buy-in / support / leadership</td>
<td>SSW 1, SSW 4, SSW 5, CHW 1, HNE 3, SW 4, NSCC 3</td>
</tr>
<tr>
<td></td>
<td>Support / engagement / leadership from senior management not always forthcoming</td>
<td>HNE 5, NSCC 2, SESI, GS 1, NC 2</td>
</tr>
<tr>
<td>Stakeholder engagement</td>
<td>Lack of engagement / support of medical staff</td>
<td>SESI 11, SESI 3, SESI 1, NC, SESI, HNE 2, HNE 5, SW 2, SSW 2, NSCC 1, NSCC 2, NSCC 3, NC 1, NC, GW 3</td>
</tr>
<tr>
<td></td>
<td>Good medical engagement / support</td>
<td>HNE 4, SW 3, NC 2, NC 4</td>
</tr>
<tr>
<td></td>
<td>Staff engagement across all levels / key stakeholders facilitated implementation</td>
<td>SW 3, SESI 7, GW 2</td>
</tr>
<tr>
<td>Implementation</td>
<td>Not able to fully implement solutions due to lack of resources</td>
<td>SW 1, SW 4, HNE 1, HNE 3, NSCC 1, NC 2, NC 3, NC 4</td>
</tr>
<tr>
<td>Use of data</td>
<td>Data collected but not acted upon</td>
<td>SESI 1, SESI 3, SESI 11</td>
</tr>
<tr>
<td></td>
<td>Poor feedback to staff regarding actions taken by management</td>
<td>SESI 1, SESI 3, SESI 11</td>
</tr>
<tr>
<td>Training issues</td>
<td>Low level / lack of computing skills</td>
<td>SESI 4, GS 1, GW 2</td>
</tr>
<tr>
<td>Infrastructure</td>
<td>Lack of computers</td>
<td>SESI 1, GW 2, NC 2</td>
</tr>
</tbody>
</table>

The results indicate a very broad range of issues, reflective of the phrase ‘all implementation is local’. What came through strongly was the importance of local leadership, particularly at the level of individual units or departments. Leadership from senior management was not always forthcoming but this issue was raised only sporadically. Project establishment issues (not all included in the table) were largely confined to two area health services – South Eastern Sydney Illawarra and Greater Western. The three projects where staff did not see the change as beneficial or disengaged after the project commenced were all in South Eastern Sydney Illawarra where the JONAH projects were implemented very quickly and this was reflected in the implementation checks. The issues in that AHS regarding data being collected but not acted upon and poor feedback to staff regarding actions taken by management all relate to implementation of JONAH.

The issue of medical staff engagement or support was mentioned in the reports for 16 different projects, usually because of the lack of engagement/support. Whilst the reports were not required
to link implementation with outcomes there appeared to be a general theme that when support from medical staff was present implementation ran more smoothly. Clinician engagement is explored more fully in Section 5.3.3.

Most projects have a strong facility-based focus but for those with an area-wide focus implementation was challenging in some cases. Eight projects were identified as not being able to fully implement solutions due to lack of resources, with this being a particular issue in the North Coast AHS. The importance of continuity of project management was highlighted in several projects.

5.7 A process for sharing learning and knowledge

The NSW health system, like most large modern enterprises, has become a complex hybrid of a formal hierarchical bureaucracy and an informal web of interconnected activity. While much of the operation of the CSRP is part of the formal organisation, the informal network makes a vital contribution to organisational learning through the sharing of practical information and knowledge among peers. The contribution of shared learning and knowledge to achieving the goals of the CSRP is embedded in, and spreads across, both components of the hybrid. There are various formal initiatives and programs, particularly those involving technology and databases, which spread through the hierarchy from the top. These systems are basically content or ‘information management’ where knowledge flows vertically in the organisation, much in a broadcast fashion.

The term Knowledge Management (KM) is defined by the Australian KM Standard to cover the concepts of horizontal ‘spread’ and ‘knowledge sharing’ that are served by the less formal networks that cross the organisational boundaries of the central Health Department, AHSs, hospitals and units within them. Knowledge management is critical to the organisational learning and development required to support redesign.

The influence of the Australian KM Standard on shared learning and knowledge within the CSRP was sponsored in 2006 by the then State Knowledge Manager. In particular, the Standard views the internal knowledge context of an enterprise such as the Health Department as a knowledge-ecosystem (see Figure 55). This eco-system identifies the variety and diversity of relevant elements and implies that these are invariably interrelated to the extent that any disturbance in one potentially affects all others. This local eco-system is then situated within a complex external context including politics, media scrutiny and public expectation. Within this complex environment, organisational learning and knowledge management are also strongly allied to change and risk management and almost always involves long term changes of culture that are difficult to produce and to predict.

This section of the report on shared learning and knowledge uses the framework of the Australian KM Standard and draws data and information collected in 2006 and 2007 from many areas of the Health Department. The resources and documentation available to us include:

- The 2006 KM Project Plan: ‘Building bridges to better patient care’.
- Interviews in 2006 conducted with Knowledge Managers at State and Area levels and one of the KM consultants.
- A social network analysis of knowledge sharing relationships at all levels of NSW Health.
- The 2007 Picture: Analysis of 2007 interview transcripts using a concept mapping tool comparing State, Area and Hospital levels.

We found a divergence of views on what is understood by the terms related to shared learning, knowledge management, idea sharing, spread and communities of practice. There is also a divergence on what has been achieved and what should be done about it.
5.7.1 The 2006 KM Project Delivery Plan: Building bridges to better patient care

The documents associated with the ‘Building bridges to better patient care’ banner presented a forward-looking shared learning and knowledge landscape aligned with current KM thinking and practice as recommended in the Australian KM Standard, with a focus on decision-making for business and health outcomes to support the CSRP aim of integrating patient journeys through the health system. The focus on the patient experience is aligned with the naturally caring culture of frontline health services. The knowledge eco-system framework in the Standard (Figure 55) is appropriate and commendable but poses challenges for determining separate, measurable KPIs for shared learning and knowledge.

Implementation of the ‘building’ vision underpins an approach to the spread of knowledge that is central to the sustainability of the results achieved by the CSRP. In the framework of the Australian KM Standard ‘building’ activities are continually promoted to explore and trial new possibilities and create ‘champions’ for innovation in all parts of the organisation. This Building phase should continue and occur in parallel with a continued ‘Mapping’ phase, to audit shared learning and knowledge activity, an ‘Operationalising’ phase to formally implement knowledge related programs and a regime to measure and evaluate these.

The adoption of the ‘Building bridges to better patient care’ approach points to the need to strike a balance between opposing forces that include:

- Formal/Top-down/State driven KM initiatives versus bottom-up/locally driven knowledge sharing.
- Planned and controlled programs versus emergence and innovation.
- Transformation versus continuous improvement.
- Data and information versus knowledge.
- Different emphases of people, process, content or technology driven programs.
The NSW Health Knowledge Framework Project undertaken by PA Consulting is comprehensive and follows the ‘Building bridges to better patient care’ direction. The report provides an excellent basis to take initiatives for shared learning and knowledge forward in the right direction but there is a heavy reliance on development of ARCHI as the core for KM. The emphasis on building bridges is in itself excellent as long at it is realised that these need to be both vertical and horizontal, as well as across traditional boundaries. Vertically, knowledge is found at all levels and can be categorised as:

- Global – published knowledge from anywhere – accessible in CIAP.
- National/State – leadership, policies, funding, planning, vision, objectives, politics.
- Area health service – closer to the coal-face but can initiate and support KM between institutions
- Hospital/Institutional – where the integrated patient journeys take place.
- Work units along the patient journey.
- Individual patients with families, different needs and backgrounds.

Horizontally, knowledge can be shared by communities of practice and communities of interest across institutions and work units, supported by AHSs and the Health Department. This is where innovative models can be generated and shared.

Both the KM Project Delivery Plan, ‘Building bridges to better patient care’ and the Knowledge Framework Project are structured around the four KM elements of the people, process content or technology from the Standard. A fifth element of leadership is added by the Health Department implying a responsibility for planning, driving, supporting and providing resources at State level. It should be recognised that leadership in KM terms involves bringing all people in the organisation along the journey, probably the biggest challenge of implementing KM in a large organisation.

5.7.2 The 2006 picture

From interviews in year 1 at the State level there was strong advocacy for the “Building bridges to better patient care’ vision and the knowledge eco-system philosophy of the Australian KM Standard. This means that the scope of shared learning and knowledge initiatives is broad. They cover on the one hand the building of a knowledge portal to take advantages of technological solutions for information management. On the other hand there is the promotion of learning through knowledge sharing of lessons across locations and teams in communities of practice. The correct focus here is on the sharing of models of practice, successful in one area, for local adaptation and development under other conditions. This is quite different from traditional practice of transferring ‘canned’ solutions from one area to another or from the top down.

In contrast a completely different view of KM was observed elsewhere in the health system (in one AHS) where the old culture of information distribution and centrally organised training programs was observed. Although this has merit for quality control in a large bureaucratic organisation, it is quite at odds with the vision from the Health Department as there is no place for innovation or incentives for knowledge sharing.

The same divergence of approaches can be seen at the information provided on websites of the Intensive Care Coordination and Monitoring Unit (ICCMU) and the Caresearch program in South Australia. At the same time ICCMU runs ICU connect where knowledge is shared and adopted in a much more informal person to person fashion. The need for a balance and integration of such technology-based activities could provide great benefits but will not be easy to achieve.

The Social Network Analysis (SNA) conducted in 2006 was very informative, demonstrating the dominance of the central HSPIB within which the CSRP Program Office sits; the existence of silos,
the existence of some strong horizontal knowledge networks, and the need for cultural change. The picture painted was one of the complexity inherent in KM for the CSRP. Current understanding of Complex Theory says that it is impossible to predict the full ramification of planned activities in a complex environment where large numbers of things interact. This is depicted in the Australian KM Standard concept of an eco-system (see Figure 55). This flies in the face of an organisation’s need to determine what best to do, to set objectives and measure performance against these. The Standard presents ways to overcome this critical problem and the Health Department can only benefit from following this path. This analysis follows the Standard.

5.7.3 The 2007 Picture

In order to update perceptions of shared learning and knowledge a content analysis was conducted of the transcripts from the year 2 interviews using the concept mapping tool, Leximancer. This compared maps of interviews with State, Area and Hospital staff concerning all issues of the CSRP with respect to the position of the concept of shared learning and knowledge. The maps were firstly generated automatically and then words considered to be irrelevant taken out, like concepts merged and some added (e.g. concept of improvement, ideas, knowledge etc where missing from the particular set). The Leximancer analysis was then rerun producing the maps that formed the basis for our analysis.

The map generated by all the interviews is shown in Figure 56. In the Interpretation of the Concept Maps note that:

- The brightness of a concept (dots, names in black) is related to its frequency (i.e. the brighter the concept, the more often it appears in the text).
- Nearness in the map indicates that two concepts appear in similar conceptual contexts (i.e. they co-occur with similar other concepts)
- Extent of coverage of themes (circles, names in colour) linking related concepts (dots) have been adjust down from a single theme for the whole map until ‘sharing ideas’ or something similar appeared as a separate theme among others.
- The orientation of maps is not meaningful, i.e. they can be freely rotated for convenience without altering their interpretation.

Those concepts in the ‘ideas’ theme on the right are significant though not near top of the list of concerns (in the bottom third of meaningful concepts). The theme is however close on the map to the main themes of the ‘CSRP’ and ‘work’. Where concepts of ‘sharing ideas’ are mentioned they relate to concepts of knowledge/information, changing culture, leadership, learning, outcomes. So, though not high priority, people are taking notice and speaking the right language where sharing knowledge is concerned. However, concepts relating to ‘learning’ seldom appear implying that the notion of the NSW health system being a ‘Learning Organisation’ needs much more explicit attention. Wherever the concept of ‘culture’ occurs it is always in relation to change (see next quote) although change is mentioned in other contexts so is not close on the map.

**Doing a culture change is more than just putting a structure in place that brings people together ... There’s a whole underlying philosophies and attitudes of people that need to change. I still think we’ve got a long way to go. (A)**

The concept of ‘improvement’ is further away on the map on the bottom left of Figure 56 i.e. ‘improvement’ is not often thought of in relation to sharing ideas and is mainly mentioned in the context of ‘performance’. Similarly the concepts of ‘meetings’ and ‘discussions’ are in this part of the map and not seen as closely related to the notion of ‘sharing ideas’.

Additional maps were generated for interviews with people from the Health Department, AHSs and hospitals but are not reproduced here. For those in the Health Department the concepts of ideas,
sharing, knowledge, information and learning are significant and used in similar contexts but are somewhat dispersed (not a tight theme of sharing ideas here) – as the next quote illustrates.

*It was certainly a central change in understanding that knowledge management and knowledge sharing are important. We thought we knew how to run hospitals ten years ago and everyone, just, you'd go and run a hospital. And then there was this realisation at some point that we had a limited idea of how to do it effectively and well and so we have to learn how to do it and then share the learnings.* (D)

**Figure 56  The Leximancer concept map of the set of all Interviews**

The group of KM concepts is far (when mapped) from the cluster of concepts of measures, performance, improving, quality and outcomes, represented by the quotes below where KM or sharing ideas are not mentioned:

*as we've always said, we think the improvement is about three things - it's about the performance management, about the clinical redesign and about the increased capacity. At the end of the day, I think it is about how those three things are impacted on management psyche, and the number of levels in an area of health services.* (D)

*People concentrate on what's measured, so there's been all sorts of iterations of performance management, who we've gone from the big to the micro and we're heading back to the big, but in the end you've got to decide what's important and then you decide what's the best way to measure what's important and that will lead you to the outcomes you want.* (D)

In the map of AHS interviews the concepts of learning, knowledge and sharing ideas are used in similar contexts and the concepts of ‘meeting’ and ‘system’ are closer to this theme than in other maps. At AHS level, the formal organisation, through meetings and information technology, is
seen as most significant to the sharing of ideas (see next quote). The role of informal networks was not seen as prominent.

*I think there’s a lot of, again it’s time for people to ingest the sharing of ideas, it’s still people having enough time to do that, but I think there’s more and more resources that allow us to do that rather than relying on having works, you know, forums and meetings and that sort of stuff. I think through either the ARCHI web sites and the department sharing, well I couldn’t say for sure, and I wouldn’t think that there’s sort of penetration of sharing CSRP things in this organisation, I couldn’t say that there’d be a nurse on the ward here would think I’ll go and find out what another area’s done in.* (A)

In the AHS map, the concept of ‘information’ is further away from the ‘sharing’ theme and used more in the context of systems and leadership. This again emphasises the dominance of the formal bureaucracy for shared learning and knowledge at the management level of the AHS. The less formal concept of ‘culture change’ is quite distant on the map and so seems to be unrelated to the concept of ‘sharing ideas’.

In one map from an interview with an area manager with KM responsibilities the concepts of KM and sharing ideas are much more prominent than in any of the other maps. The sharing theme is much more closely related to the concept of ‘improvement’ and standard KM activities of breaking silos, forums and networks. Informal spaces for interaction are implied from quotes such as those represented below:

*There are the clinical networks that are, of course, established across the area. And that’s a huge way of sharing, that’s really about that sharing, networking, rather than within the silos of services; their networks are there across the area.* (A)

*One of the critical things that’s always stood out for me in the last few years is that we don’t have space; we don’t have informal spaces where people can get together and do that. They’re just working.* (A)

*It's the same with a lot of things we tried to do. Lots of great ideas and people discuss it, and it's done informally.* (A)

From interviews with hospital managers implementing CSRP there is a small set of lowly ranked concepts under the sharing ideas theme with culture change and information close by in the ‘system’ theme. The concept of ‘patient’ is prominent so that the CSRP foci on ‘patient journey’ and ‘patient experience’ make sense in the hospital culture. However, there is no detection of the concept of ‘knowledge’. Two different quotes as presented below show that not everyone here sees sharing ideas as a good thing. As would be expected the main focus is on the patient, clinical work, the ED and improving performance at hospital level.

*Within the Health System there is open sharing of the information.* (H)

*If you’re competing, you don’t want to share your good ideas.* (H)

With large institutions, such as hospitals, there are many people (dieticians, cleaners, volunteers, social workers) who cross unit boundaries and provide the communication channels for an informal information network for social and cultural knowledge. These are known in Complexity Theory as ‘hidden attractors’ and convey messages such as ‘everyone in Unit X is always complaining’, ‘Unit Y is one of the good places to work’. This ‘gossip’ is a strong contributor to organisational culture within which organisational learning occurs.

**5.7.4 Observations and Recommendations on Shared Learning and Knowledge**

The framework of the Australian KM Standard is formed around the philosophy of a knowledge eco-system where there is a complex interplay between knowledge elements, processes, enablers and environments. With regard to the five elements of knowledge management we note and suggest the following:
**Leadership**

The concept of ‘leadership’ is not on the map of interviews at State level. On AHS and hospital maps the concept of ‘leadership’ is close to concepts of ‘work’ and ‘performance’ rather than those of ‘ideas’ and ‘sharing’ where leadership is needed. The vision of CSRP from the Health Department is clear and reasonable. At State level both formal vertical and informal horizontal information and knowledge sharing are acknowledged. However leadership needs to be shown in the promotion of all parts of the NSW health system as learning organisations. Leadership at AHS regards issues of shared learning and knowledge places as located in the formal bureaucracy through meetings and information systems.

**People**

There is an emphasis in the program on creating, capturing, storing and accessing knowledge in ARCHI (much of which is really information) but little on how people contribute and use knowledge and how learning occurs:

- building day-to-day KM activities into job descriptions and workloads
- ways to encourage and reward knowledge workers and sharing of ideas, in particular building on the traditional culture of patient care in health services.
- giving people the incentives and skills to take shared knowledge on board, trusting in the advice and information give and having the authority to use it locally.
- making the NSW health system a learning organisation.
- sustaining positions of knowledge managers at State and in AHS

**Processes**

It is important to identify what can be done in the short, medium and long term in the context of current constraints and demands and to recognise the long time-frame typically required for genuine culture change. The focus on ‘patient experience’ and ‘patient journey’ resonates with the traditional health service culture among clinicians. Both formal and informal processes for sharing learning and knowledge need support and development - processes for information and knowledge flows that are both vertical (usually more formal and supported by databases etc) and horizontal (usually more informal supported by face to face meeting or new social technologies).

**Technology**

The proposed technologies, e.g. the Knowledge Portal CIAP and ARCHI, are mainly focused on data/information capture, organisation and access. There has been some use of online discussion forums in recent years but only tentative steps to introduce new conversation social technologies (such as blogs and wiki) for communication and interaction that are now starting to move from civil society into the corporate world.

**Content**

Develop the knowledge portal and component technologies. Input of information into these systems is always easier than enabling effective use of the information in the system. There could be more in place to monitor its use, useability and usefulness and allow also for less structured and less monitored content in discussion groups, blogs etc.

With regard to the three phases of KM we note and suggest the following:

- Mapping – Formally continue the knowledge audits and social network analysis as CSRP programs are implemented to evaluate progress and identify new needs. Get more feedback from those at the coalface, without fear or blame, to evaluate the improvement in networking and informal process of shared learning and knowledge
- Building - explore and trial activities to see what works to engage people at different levels and build champions. Employ knowledge managers who understand the enablers of this phase.

- Operationalise - implement planned initiatives in a flexible way allowing for localisation and innovation.

Across these elements and phases identified in the Australian KM Standard there needs to be a relevant system of evaluation and culture of learning from good and bad outcomes.

### 5.7.5 Looking to the Future

We have been provided with a draft (May 2007) version of the ‘Strategy for the Sustainability of Clinical Services Redesign Program’ and make the following comments from a KM perspective.

The methodology covers the necessary wide range of elements and processes for the CSRP but the breadth of these presents a challenge for meaning, integrated implementation. While the formally implemented strategies will be well planned with appropriate provision of information and training, issues of shared learning and KM across boundaries will require less structured processes where the knowledge eco-system view will be helpful. This will require initiatives where direct outcomes will be difficult to predict and measure. Examples of these initiatives may be bringing people from different regions together in a social setting to develop trusted networks, allowing the use of loosely monitored online discussion forums, allowing less centralised decision-making. There needs to be a balance between the short-term risks of these to accountability and control against the long-term risk of maintaining a controlled but disconnected organisation where there is little shared learning or knowledge.

The notion of messages in the strategy is significant. Some dangers of the messages from this document are:

- That the term ‘sustained redesign’ could be threatening with the implication that there is nothing right with what is there now and what has been done in the past. This means there is and always will be a need to change in a formal and planned manner which can be unsettling, leading to ‘change fatigue’. The message of the term ‘learning organisation’ is counter to this, i.e. that we are doing some things right and there are others that could be done better and that we learn from our experiences and those of others in a positive way to change the process where appropriate. This allows for an emergence of new ways of working in a supportive culture.

- The proposed roles of ‘Redesign Engineers’ and ‘Journey Owners’ may also send the wrong message as people who are trained on the centrally-determined policy and there to promote the central CSRP methodology, i.e. a formal vertical process where there is a one-size fits all approach and input from other workers is discouraged. There is a need for a message of inclusiveness and flexibility.

- More attention could be given to the role of rewards and incentives in the area of shared learning and knowledge. This must ensure that targets and desired behaviours are not linked to measures that determine the allocation of resources otherwise the well-known game will be played where the measures are maximised for their own sake and become meaningless as an indication of real quality improvement.

### 5.8 Quality and service improvement skills, methods and techniques

#### 5.8.1 Skills transfer from external partners

We have referred elsewhere in this report to the pivotal role played by external partners in the CSRP (Section 5.1.1). Skills transfer to local management was identified in the CSRP business
case as a key deliverable for the use of external partners. The survey of projects asked two questions about skills transfer from the external partner:

- How useful were the techniques used by the external partner?
- How much did the project team learn in terms of new skills or knowledge from the external partner?

The responses are summarised in Figure 57.

**Figure 57 Usefulness of techniques used by external partners and amount of new skills and knowledge learn**

Clearly there is a very strong degree of agreement that the techniques used by the external partners were significantly or moderately useful and the amount of learning was likewise either significant or moderate. This is consistent with the results of the Customer Satisfaction Performance Survey completed by AHS and Health Department staff at the completion of each work order (Section 5.1.1). On a scale from 1 (strongly disagree) to 5 (strongly agree) both gave an average rating of ‘4’ for the performance of the external partners (across all the projects that we have ratings for) on the question of ‘our staff’s work-related skills have been enhanced’.

Data management, project management and change management skills are the skills most frequently learned from external partners (Table 13).

**Table 13 Knowledge and skills learnt from external partners**

<table>
<thead>
<tr>
<th>Knowledge or skill</th>
<th>No. of projects</th>
</tr>
</thead>
<tbody>
<tr>
<td>Data management skills</td>
<td>9</td>
</tr>
<tr>
<td>Project management skills</td>
<td>9</td>
</tr>
<tr>
<td>Change management skills</td>
<td>8</td>
</tr>
<tr>
<td>Facilitation of meetings and workshops</td>
<td>6</td>
</tr>
<tr>
<td>Communication skills</td>
<td>5</td>
</tr>
<tr>
<td>Techniques for diagnosis e.g. process mapping</td>
<td>5</td>
</tr>
<tr>
<td>Time management skills</td>
<td>4</td>
</tr>
<tr>
<td>Computer skills</td>
<td>4</td>
</tr>
<tr>
<td>Presentation skills</td>
<td>4</td>
</tr>
<tr>
<td>Stakeholder management</td>
<td>4</td>
</tr>
<tr>
<td>Knowledge or skill</td>
<td>No. of projects</td>
</tr>
<tr>
<td>-------------------------------------------</td>
<td>----------------</td>
</tr>
<tr>
<td>Using evidence to make decisions</td>
<td>4</td>
</tr>
<tr>
<td>Project governance (structure for the project)</td>
<td>3</td>
</tr>
<tr>
<td>Implementation of strategies</td>
<td>3</td>
</tr>
<tr>
<td>Risk identification and management</td>
<td>2</td>
</tr>
<tr>
<td>Report writing</td>
<td>2</td>
</tr>
<tr>
<td>Teamwork (with other clinicians)</td>
<td>1</td>
</tr>
<tr>
<td>Improved problem solving</td>
<td>1</td>
</tr>
<tr>
<td>How not to manage external stakeholders</td>
<td>1</td>
</tr>
<tr>
<td>Recognise significance of patient input</td>
<td>1</td>
</tr>
</tbody>
</table>

This list accords quite well with the range of skills identified in the CSRP business case as being necessary for the reform process - business process redesign, expert independent facilitation, methodology development, program and project management, data analysis and reporting, change management, management skills development and implementation skills.

The external partners we interviewed in Year 1 identified a number of skill gaps amongst the teams they were working with – data analysis and interpretation (looking at the data objectively and deciding what it means), implementation skills, managing and delivering change, project management and governance. A lack of business understanding, especially in front line managers, and a lack of a breadth of experience and knowledge, especially in rural AHSs, was also reported. The external partners drew attention to the need for a more structured approach to managing change:

> Biggest skill gap is a framework and a process for identifying what the problems are, and then making the changes that are needed – basically change management. [There is a] dearth of data analysis skills, especially in nurses. (EP)

> In the health environment traditional training hasn’t been surrounding a change journey … it’s been around patient care … this is a very new topic for people. (EP)

Although a considerable degree of skills transfer is occurring from external partners to members of project teams this is not seen (by the external partners) as being sufficient to create sustainability.

> Sustainability is about the empowerment of the bottom layer of people, the nurse unit managers, the clinicians. If we up-skill them to the tipping level, where they can actually identify the problem themselves and know what the process is to set in train a process, a project, whatever, to fix the problem. (EP)

The issue of sustainability is explored further in Section 6.

### 5.8.2 Upskilling in years 2 and 3

Elsewhere in this report we refer to our finding that there has been an improvement in managers’ ‘understanding of the business’, with a stronger orientation towards efficiency, achieving results and using data to support decisions (Section 5.5.2). This is important, not only as an outcome of the reform strategy, but because of what is generally recognised as a lack of management capability (Section 5.5.3). Strategies to address this have been built into the sustainability strategy for CSRP (Brown 2007) which includes the establishment of the Centre for Healthcare Redesign to develop a pool of ‘redesign engineers’ and an E-learning platform which will provide a self-learning program for managers.

Another ‘skills deficit’ identified in year 1 relates to the issue of implementation. In response to this the Health Department has engaged consultants to teach their proprietary methodology for implementation (Accelerated Implementation Methodology):
So we were already looking for ideas and we found this company who have a methodology called Accelerated Implementation Methodology, or AIM, and we ran a couple of workshops, we thought we could give them a try and so we ran it with some of our internal people in here and also our clinical redesign units, and people had epiphanies in this session, it wasn't anything that you hadn't heard before, it wasn't difficult, it wasn't challenging to us, as people that are used to doing this type of stuff, but it was the structure that they actually put around how to implement something, that was phenomenal. (D)

240 people attended two-day workshops on the methodology between February and September 2007. Of those completing a questionnaire (n = 206) about the workshop 83% responded that it was very effective and 17% that it was effective in helping them to learn the concepts and/or skills that were presented. When asked how valuable they thought the concepts and/or skills would be to them in doing their work 77% responded ‘very valuable’ and 23% responded ‘valuable’. Also, 98% said they were either ‘confident’ or ‘very confident’ that they would be able to apply the skills/knowledge learnt from the program. In addition to the workshops some intensive half day or one day workshops have been held for senior managers.

5.9 Systems and measurement

There is an extensive and diverse literature on the measurement of performance that summarises characteristic responses to a performance management framework as an evolution of thought with four phases:

- Initial enthusiasm characterised as the performance measurement imperative.
- Proliferation of measures and fragmentation of effort.
- Sober reassessment and reflection on the complexity of the task.
- A move towards consensus and identifying solutions (Adair, Simpson et al. 2003).

An important lesson from the performance measurement literature is that systems for collecting and analysing data are much more complex and costly then is usually anticipated. A large number of measures have been developed, the science of performance measurement is in its early days and ‘there appears to be little substantive evidence to demonstrate positive impact on decision-making, improvement in health service delivery or health outcomes’ (Adair, Simpson et al. 2003, p 2). The Health Department has invested considerable time and effort in improving the collection and use of data, particularly around patient flow issues, which is welcome. We would encourage the ongoing development and refinement of these systems, which can not only inform what is happening in NSW but help to fill the vacuum of existing knowledge in this area.

There is increasing recognition of the need to align performance measurement with strategic priorities. In NSW this is occurring, for example, with the publication of the State Health Plan in February 2007 which incorporates the ED and elective surgery access KPIs for CSRP in one of the Plan’s seven strategic directions - ‘create better experiences for people using health services’.

The use of data was identified in our first report as crucial to undertaking a successful clinical redesign project, with an almost symbiotic relationship between staff buy-in and the use of data. It was the cornerstone of what we were trying to achieve because it's what's telling us the story, it's what's telling us where the problems are, where the trends are, where we need to concentrate our efforts on. Prior to that I really don't feel we knew what our business was. (P)

Given the generally short timeframes for the early diagnosis and solution design phases, the availability of good data early in a project is of particular importance.

The key role played by the use of data was confirmed by the senior managers we interviewed, with suggestions that at the beginning of the program measurement was focused too heavily on a small number of measures but that as time goes on measurement is becoming more sophisticated. The use of dashboards is now commonplace and seen as a very important advance:
I think it was a bit of a mistake for us in the beginning to give the impression that it was all about numbers and that the main goal in all of this redesign was to get access down to less than 20%. And what we’re doing now to address that is to say, no, it’s actually all about a number of dimensions of how we’re delivering care here and those dimensions are high quality clinical outcomes safely delivered, better patient and staff experiences, better flow and access and reduction in waste … we’re moving away from the idea of metrics because if you only focus on the metrics then there’s a real risk that they’ll be gaming. (D)

The art now is to pick the right things to measure, and if there’s one thing you learn in this game is that every KPI has an anti-KPI. If you press that button, something over there reacts. (D)

We’ve kind of went into this redesign program with that kind of culture, fairly generally, this is just about you making up, get your stats right, so you all look good, rather than them thinking, well it’s actually about the patients getting treatment in the right time and me doing my job better … I think information was a real turning point and it was interesting that we kind of gave people a lift and a buzz when they were able to get much more timely information on their performance as well and they owned that a little bit better … it just seems to be a really powerful change. More so than I really thought it was going to be … it’s actually had the effect of improving the data would be my feel. (A)

The development of the chief executive dashboard, where all our KPIs are, how we’re travelling, in any sense, and it is so sophisticated now, I couldn’t do it without it. The tools that we have now, the electronic tools that we have now, and the IT interface is so strong and so important to the way we do our clinical work every day now that we couldn’t really function without it, and if something goes down, I actually feel like I’m flying blind. (H)

But I think it’s more professional and we do actually have good data to compare performance and targets that everybody understands and knows. So I think it actually works better, people perform better because they know what they’re performing to, the targets don’t change every day, which they used to. (H)

One issue commented on by some managers was the large number of performance indicators currently used across the whole spectrum of the health system, including those indicators that may be part of things such as a ‘whole of government’ approach to improving health.

The constant demand for information from all over the place from the Department of Health, most of which we know is never used and never looked, is an enormous waste of everybody’s time and energy. So if the performance improvement branch could spread the philosophy of being clear about what information it wanted and used to the rest of the department that would be great. (H)

I think there’s a lot of rhetoric around the use of data. And I think we’re very busy collecting it and putting it into reports. I’m not that convinced that it’s really influencing decisions. I think a lot of times people have an idea of what they see as a solution, and they go to find the data to support that, rather than actually look at the data to identify the issues. (H)

Referring back to the four phase evolution described above, this indicates to us the value of moving more to the ‘sober reassessment and reflection’ and ‘consensus and solutions’ phases to consolidate and refine what is being collected now.

As we have commented on elsewhere in this report the availability and use of data has contributed to a greater understanding of the business of health. One observation from the interviews in year 2 is that there is now recognised to be an insufficient understanding and expertise in the use of case mix data. With the planned move to an episode funding model in NSW this may well be rectified in the near future. Two of the people we interviewed spoke highly of the data that is available to them by virtue of their hospital being a member of the Hospital Round Table, in particular the ability to use casemix data to benchmark performance against peer hospitals:

*If you benchmark yourself against your peer hospitals in the Health Round Table data, you can actually see where you’re travelling really badly, and where your opportunities to save bed days are, which means reducing your length of stay, which means placing pressure on the clinical services to...*
redesign their model of care. And that’s where we’re at the moment. I know there’s probably about 4,000 bed days to be saved in one clinical service, so if I can achieve at least half of that, in the next 12 months, it will have made a huge impact to this hospital … The Health Round Table data is extremely useful … there’s a sense that through Health Round Table you meet the people from the other facilities, you actually know who they are anyway, so it might be de-identified out in the general world, but internally you actually know who’s who in the zoo, so you know whether you’re benchmarked against a peer or not, and if they have that same DRG that’s case weighted as you. So that you do compare apples with apples. (H)

5.9.1 Data quality

During the course of the interviews in year 2 there were some references to possible distortions in the data, and how the data might be distorted, and hence a lack of confidence in the quality of the data in some quarters:

*With regard to have we identified better processes rather than just better numbers, yes and no. We have audited to make sure that the numbers are right, we have minimised the chance that they’re just gamed but then we’ve also done other things like introduced this whole new dimension which we didn’t have in the beginning which is what are your patients experiencing as a result of this. (D)*

*I think how data is being used and whether it means what people are saying it means is a concern. (D)*

*I could go in to any of the ED’s that we’ve just spoken about and I could hit your targets tomorrow for you. Patient experiences and the staff experiences within those units would not have improved. In fact they’ll probably have got worse but I can get your targets for you, because I know how to do it. (D)*

*The focus on waiting lists has meant that people are actually looking at the data on waiting lists, they’re questioning the accuracy, they’re actually using it to manage the lists. One can also say that they’re using it to manipulate the figures, we won’t go down there … I have concerns about the accuracy of a lot of data. (A)*

*XXX have this, I think it’s called a MAU, medical assessment unit and they’ve got the label taped to the curtains because it’s one end of the ED. You know, it’s got a little bit of paper taped to the curtain so if you move your patient in behind those curtains, they’re not access block any more. (H)*

*I’ve created a virtual EMU. That’s a term that people actually go oh, you’ve got a virtual EMU as though you’ve actually got something. No, no I haven’t. (H)*

*The only thing they measure you on are your indicators. That’s the only evidence of the actual outcomes. What I’ve been arguing for a couple of years is that’s okay as long as we’re all measuring the same thing in the same way and clearly we’re not because I can jiggle the figures, so everybody else can jiggle the figures. (H)*

None of this is unexpected (in fact – given experiences in other health systems - we would be surprised if this issue had not been raised). Auditing by the Health Department and ongoing work to standardise and refine definitions should all improve confidence in the data.

5.9.2 Information technology infrastructure

We noted in our first report that there are multiple data collection definitions and IT systems and some data systems are more difficult to access than others. Responses to the survey of projects identified various problems with data collection and analysis - information systems that are not integrated, the use of free-standing databases, manual data collection, differences in skill level of staff accessing data and lack of support for IT issues. Deficiencies with current data systems have resulted in some innovative project-level solutions but this runs the risk of resulting in multiple solutions to meet local needs that may be difficult to sustain.
5.10  Receptive context for change

5.10.1 Background

The research evidence shows that a good deal of the performance variability between organisations participating in a common improvement program can be attributed to the extent to which there exists a ‘receptive local context for change’, a phrase covering structure, culture, politics, and leadership (Bate, Robert et al. 2002). This can include things such as having a clear strategic vision; visionary staff in pivotal positions; a climate conducive to experimentation and risk taking; and the capacity to absorb new knowledge (Greenhalgh, Robert et al. 2004). Other researchers have identified factors (which are not discrete but highly inter-correlated) such as environmental pressure; simplicity and clarity of goals and priorities; cooperative inter-organisation networks; relationships between managers and clinicians; and quality and coherence of policy (Pettigrew, Ferlie et al. 1992).

Within the context of the current reform agenda in NSW the finding (from work in the UK) that ‘environmental pressure over a long period of time was a constant stimulus for change to rationalize acute service provision’ (Pettigrew, Ferlie et al. 1992, p 287) is pertinent. Based on what people have told us during the course of this evaluation and our own knowledge of the NSW health system we think it is fair to say that, certainly when it comes to ED performance, the declining EAP in the years from 1999 to 2004, increasing awareness that this problem would only get worse if nothing was done and the increasing demand on the health system did provide the necessary ‘environmental pressure’ for reform.

Another observation, again from the UK, is that the NHS is an ‘incoherent series of interlocking systems and groups divided on every conceivable axis’ and that ‘managing incoherence remains the most wide-ranging challenge in producing change in the NHS’ (Pettigrew, Ferlie et al. 1992, p 291 & 292). With its focus on using the concept of the patient journey and targeting the ‘breaking down of silos’ CSRP does provide a mechanism for addressing and resolving this incoherence:

   Much of the management across the system before we started didn't know how to manage the system in the way it needed to be managed, because the traditional management approach in Health is very vertical, siloed. So I manage a clinical unit, or I manage a hospital, or I manage an area. But there wasn't this concept of, we have driven the 90% view that now people are managing a patient journey. (D)

5.10.2 Receptive context

The amalgamation of AHSs and abolition of boards of AHSs resulted in much clearer lines of accountability between AHSs and the Health Department. Development of the State Health Plan provided clear goals and priorities. Expansion of the HSPIB within the Health Department to drive performance and the significant resources devoted to the ABIP and the CSRP put in place a group of key people to lead change from the highest level of the health system. We have shown (in the section on elective surgery performance) how policy can be used to support changes in service delivery. Other examples include policies or guidelines for discharge planning and extended day only. These and other strategies have assisted in providing a receptive context for change.

In year 1 many of those we interviewed commented on the importance of having a receptive environment for change at the local level. Staff did not necessarily have a clear idea about what they wanted to change, just that they wanted something better than they had at present. In other words, there was a pre-existing consensus for change that was strengthened by the introduction of the CRSP:

   We were quite desperate for some change, we certainly needed it and we were keen for some changes, so yes, I think that is a big part…. people were keen for something better. (P)
I think the reason it will be sustainable is because I think people recognise that things need to change and if we don’t do something we’re going to just keep going down the gurgler. (P)

This ‘readiness to change’, and the ability of clinical redesign to provide a tool for responding to this situation, was supported by comments from senior managers:

I think most areas came to the realisation with the Department that this was the way forward. (A)

I think that one of the key changes has been to focus on performance management, and following for outcomes now, that results do matter, and linking that to KPIs as well as the resources. And once you set that framework up and drive people on it, they look for solutions. And if you provide them with a tool that supports that framework, then we start to get a difference to the way people operate. (A)

It’s actually about the patients getting treatment in the right time and me doing my job better, but that was part of the process, was kind of changing, trying to change that culture and I think that happened at varying degrees, so where you were able change that focus that’s where the results, I think, started to flow as well. (A)

There is a general view that the methods underpinning CSRP are consistent with previous initiatives to improve the health system. Whilst this is not totally in accord with what was envisaged in the CSRP business case the fact that CSRP is building on what has gone before means that it is providing some continuity with the past, while at the same time seeking to achieve change through different means. This link between continuity and change is similar to a number of challenges with regard to providing a receptive context:

- The need to focus on corporate priorities while recognising that professional bureaucracies exist and are not going to go away:
  
  The best thing about clinical redesign is that it has got people who work in health to realise that they work in a system and it is about how you can improve the system without impacting on their professional judgement about their patients. (H)

- The scientific approach to management exemplified by CSRP has to take account of the ‘softer’ humanistic approach required to manage people.

- ‘Top down’ pressure for change should provide room for ‘bottom up’ innovation.

- Individual accountability (very much a feature of the performance management approach) has also to recognise the importance of developing a team approach to problem solving:

  The booked surgery one has been fantastic for that. We deliberately had people from all parts of the organisation come together to redesign the systems of care. (A)

- The extensive monitoring undertaken as part of CSRP needs to give way at some stage to greater trust that redesign can occur without being driven so hard from the centre.

  In areas that I’ve come from we’re doing it because we’ve been doing it. And we don’t need people to drive us because we’re absolutely as driven as could possibly be to get these changes. (A)

- Competition may have its place but if it is not done wisely it can reduce collaboration:

  I think competition is good to a certain extent, the sharing, you know, I don’t know how much sharing really occurs. (H)

Consideration of these issues, as with so much else to do with CSRP, blurs the boundaries between what outcomes can be ascribed directly to the impact of CSRP and how the context within which CSRP is taking place is shaping those outcomes (in terms of both scale of change and direction).

Our evaluation has not specifically addressed the issue of organisational culture, but has touched on it from using an evaluation framework based on key success factors for organisational change.
This has occurred most obviously by looking at the question of whether there has been a change in mind-set/can-do attitude/understanding the business (Section 5.5.2). Although there are many different ways of looking at the issue of culture there is agreement that, in general, organisational culture is layered in nature:

- **Level 1 Artefacts** – the visible manifestations of culture, the observable patterns of behaviour.
- **Level 2 Beliefs and values** – beliefs and values that form the basis for decision making and justify particular behaviour patterns.
- **Level 3 Assumptions** – largely unconscious beliefs, values and expectations held and shared by individuals (Schein 1992).

The implication of considering culture as being layered is that change may take place at the level of artefacts while the deeper assumptions remain unchanged. Observed changes in behaviour may not represent real changes in culture. As new behaviours become embedded and part of daily routine, they may influence deeper levels of culture but this does not necessarily occur:

> ‘Work on cultural change suggests that while artefacts may be relatively susceptible to apparently important shifts, the deeper assumptions may remain unchanged with the potential to negate, attenuate or redirect the change effort’ (Mannion, Davies et al. 2005, p 19)

As indicated in Section 5.5.2 the interviews with senior managers found that, amongst this group, there does appear to be a different approach to solving problems based on a better understanding of patient flow and access issues, the improved availability of data and a greater focus on performance management. These changes are occurring at level 1, in observed patterns of behaviour. Whether changes are occurring at deeper levels of culture we are not yet in a position to judge.

An important issue is whether the current culture is providing a receptive context for clinical redesign and improvements to performance or whether the ‘right’ culture is likely to evolve from clinical redesign and improved performance. The evidence base regarding links between culture and health care performance is not extensive, is problematic, but is generally supportive that such links exist (Bate, Mendel et al. 2007). Most studies have focused on culture at level one (patterns of behaviour) and level two, while none have addressed culture at level three (Mannion, Davies et al. 2005). It is difficult to untangle the links between performance and culture:

> Although most of the attention has focused on how culture affects performance, it is equally plausible that certain cultures emerge from high-performing organizations. That is, that performance drives culture. More likely still is that culture and performance are reciprocal, recursive and mutually reinforcing – in a manner that is thoroughly dependent on wider context and influences (Mannion, Davies et al. 2005, p 65)

What is clear is that some managers are aware of the importance of culture but also believe that the CSRP on its own will not be able to change the culture of the health system:

> It's a perception isn't it? Change in mindsets, the people that we actually work with, with clinical redesign, haven't necessarily had a change in mindset but they actually understand more of what they're doing. Now they have more skills, they have more practical skills, more negotiation and facilitation skills, they understand the change management in the communication side of what we're doing, better. (D)

> Doing a culture change is more than just putting a structure in place that brings people together. There's a whole underlying philosophies and attitudes of people that need to change. I still think we've got a long way to go … I don't think clinical redesign alone is going to change the culture. To change a culture of an organisation is more than just putting a single program. It's leadership, it's working environment, it's skilling people up, it's having a structured and a processed service, it's moving across to, of people getting a feeling when it's okay to make a mistake, that there's benefit, some people brainstorming ideas, that we don't have all the answers, that we don't work alone, in isolation … There's a whole underlying philosophies and attitudes of people that need to change. I still think we've got a long way to go. (A)
I sense that many in the Department or area are strategy driven. And clinical redesign is part of a
strategic approach that says, let’s do this here, but if you’re just putting stuff in without attending to
the culture, you’re doomed almost, it may work, but there’s a high probability that it won’t … Let’s
pay as much attention to culture as we are to strategy, and I bet that there’s a more sustainable
outcome over time than the alternative. (H)

My opinion is that if you undertake just about any project in a large organisation you will get project-
related results because it’s a project. You will get some degree of wobble in the culture of the
organisation to accommodate the project effect. But you are naive if you think that a project coming
into a large organisation with a history of traditions and conventions will lead to a change in that
organisation. Other things must occur beyond the project itself to lead to a change in the
performance of the organisation, and it’s not possible to significantly, at least, separate out
performance from culture within the organisation. (H)

This is not to say that significant change cannot occur at a local level:

The number of sacred cows that we’ve really had a go at, not all of them have fallen by any means,
but there really is a very strong openness now in having a go at the things that were once taken for
granted. (H)

We would see an important emerging role for the Centre as being one of helping to change the
culture of the NSW health care system rather than focusing solely on managing top-down
programs (although these of course can be an integral part of a broader cultural change model). If
so, what is the model and theory of cultural change that the centre is using? An important
component within a cultural change model can be creating a degree of ‘organisational slack’ to
provide a receptive context for change. For example:

Sometimes there’s, you can’t see the woods for the trees kind of stuff. I think the ability to have
some support in stepping back and really looking so that counts as support as well as internal
resources through the money that we’re given. (A)

One way of assisting this would be to undertake a small number of in-depth case studies for year 3
of the evaluation, as suggested in our evaluation plan, to take a ‘deep dive’ into the culture of
some organisations.

5.10.3 Non-receptive context

In the short term at least the amalgamation of AHSs did not always help the CSRP:

I think one of the complexities around clinical redesign was the timing in which it was introduced
across the system and it was introduced about the same time the amalgamation was occurring. So,
we were trying to drive sustainable change across the system in a period of immense chaos. And
the reason I put that on the table is because in that early, early phases we didn’t have clearly
identified, we hadn’t resolved our management structures in the hospitals, we didn’t have people in
positions. (A)

These structural issues appear to have improved over time, indicating that timing is an important
part of creating receptiveness to change and that the start of CSRP is inextricably linked to reform
of AHS’s:

I think much less of an issue now, because we’ve got more alignment at the different levels of
management and enough people who are thinking that way, that one person going is not as critical
as it used to be. So I think that’s the difference I see, is that the sustainability is actually built about
the whole team at all different levels starting to think that way, and being supportive of the
organisation and each other. (A)

One of the ‘non-receptive’ issues to arise from some of the interviews was the nature of the current
bureaucracy within the health system that some interviewees thought could be simplified and
streamlined to support the work of clinical redesign. This was particularly an issue for those
working in hospitals, as indicated by these comments:
There is an overlay of immense bureaucracy … there’s a labyrinth of policy and directive and direction and documentation that comes from multiple sources every day, not just to the bureaucrats like me, but to the clinicians as well, that I know is exhausting. (H)

There’s very much a culture here that, if you want anything, you’ve got to write a brief. It’s a joke. It doesn’t matter. If you wanted to have two days off, you’d have to write a brief. (H)

Another issue that emerged from our interviews was recognition of the importance of workforce issues and the need to ‘redesign’ the workforce:

If clinical services redesign has to go on, it has to tackle the real issue of redesign which is the workforce issue … There’s a limit to how much juice you can squeeze out of the orange in terms of efficiency so it’s actually now got to go to real clinical services redesign as opposed to management efficiency with someone else’s clothes on. (D)

This was not a focus of the interviews with senior managers but was raised by some interviewees, along with the related issue of industrial relations, with the inflexibility of current industrial arrangements seen as a barrier to workforce redesign:

The industrial instruments are appalling. You’ve got 1960s style industrial instruments that still sit people in silos, still promote them through seniority; still encourage allegiance to a profession over allegiance to a system. So it’s very difficult to make modern management changes that you want to make while you’ve got the awards that you’ve got, that’s a major problem. (H)

The leaders of any change program need to be mindful of the possibility of dysfunctional consequences, with the potential to undo good work in other areas. The literature indicates that this can include:

- Tunnel vision – focusing attention on areas of performance that are measured, to the exclusion of other important areas that are unmeasured.
- Bullying and intimidation – the pressure to meet performance targets may lead to bullying, intimidation and harassment of staff in under-performing organisations (Mannion, Davies et al. 2005).

There is some concern (at all levels) that there has been too much of an emphasis on certain areas, particularly EDs, and that this may be resulting in some distortion (tunnel vision) and a need to broaden the emphasis:

We’ve created a system where the EDs are bottlenecks, we have our principal measures in the bottlenecks and naturally enough those measures are always problematic and we keep throwing more money at the bottlenecks … People concentrate on what’s measured … What other system do you know that measures itself in terms of the things it doesn’t do, rather than the things it does? … We’ve got to move away from this absolute obsession with emergency departments. (D)

I think the thing that is concerning to most is this issue about what we’re measuring and if we just keep to measuring these particular issues instead of the broader base. (D)

I think we’ve tended to gravitate towards what are the things that we are easily able to measure. And that’s actually driven what we’re counting. And that’s wrong. We actually should be going back to the principles of, if we’re redesigning this process, how would you know whether it’s changed: what’s the thing you would measure? And there’s a lot more science in that than we think, and I still don’t think we’ve got that completely right. (A)

I don’t think the system’s becoming more sophisticated. I think the system is latching onto KPIs in the belief that it’s a way of getting people to focus on particular things. The problem we’ve got is that the number of KPIs has now become unmanageable … I think it is distorting the system and I think it’s something that we have not recognised, the extent of this. (A)

I think we’re very focussed on those sort of narrow performance indicators and I guess most of my colleagues would know that there’s half a dozen key issues that you really have got to deliver on
and they're the very high profile ones. And so we do pay a significant amount of attention to that. In the context of the whole health system, are those the right things to be focussed on? Possibly not. I think the down side is that you may not be investing enough time in other aspects of the business. We’re not actually looking at clinical outcomes as robustly as we might. Or we’re not looking at financial management as robustly as we might. (H)

The expansion of CSRP into aged and chronic in the final 18 months of the program, and the use of clinical redesign in clinical areas such as mental health, has the potential to mitigate any ‘imbalance’ that may have occurred with the early focus on EDs and elective surgery waiting lists. By the end of the three years of the program few clinical areas should be left untouched by the program.

The role of leadership in driving change involves a delicate balancing act - if you don't push hard enough people 'go to seed' in their comfort zone and avoid change; push too hard and people 'go to ground' and don't change i.e. neither end of the scale is good for change. A useful illustration of this is provided in Figure 58.

**Figure 58  Change leadership**

The aim should be to go for the middle style where people feel the need to strive, have ambition and stay focused on performance.

As part of the year 2 interviews we asked wide-ranging questions about performance management and the roles of AHSs and the Health Department. This gave rise to a range of responses which suggest a ‘push too strong’ scenario that may be working against achieving the desired level of change. While not universal these comments have been made by people at all three levels (Department, AHS, hospital):

*There’s a constant hammering, it’s almost like a squeaky wheel. I wouldn't call that performance management, in effect it comes down to a set of KPIs for the system, which are seen as a very personal set of KPIs, and everything that is perceived to improve that, gets pushed. (D)*
They get beaten up about their KPIs, and so they all go back out there and think, well, how am I going to fix this? Because I suppose it's almost seen as a sign of weakness to put your hand up and say, hey, we can't keep going this way. (D)

I know there are Chief Executives in the system who shout routinely at people and it's very interesting because they tell you about it and I just find that quite a challenge and I wonder how I'd react to it because I wouldn't think that was acceptable behaviour in any situation let alone in an environment where you're meant to be caring for your staff and for your patients … What we're hearing from front line staff is that they're getting shouted at down the phone when things aren't going as well. (D)

Having said that, I have to say that I personally have found that when I've gone to senior people in the department … I have only found support and advice and I would make that comment around a whole range of senior people across the system. I personally have not seen the heavy-handed side of it but I've seen the fallout where other people have. (A)

I won't make any comments about how people behave or how they treat other people or what the culture is in organisations, but it's been very intense. There's very high expectations and they will do things and if you don't do it properly then you'll bloody well know about it, that's all there is about it, and that's right from the top … If you take the view that systems respond by being kicked all the time, then you kick them. And lots of managers take that view, there are many who take that view. XXX does (and) is absolutely open about it, you've got to keep the pressure on. (A)

But at times I feel as if I've had enough, and I truly think that the culture in New South Wales Health is just totally appalling. I think it's quite appalling … They've got to come alongside, and work with us, not beat us up. If I burdened my executives and department heads the way they burden me, I wouldn't get any performance. (H)

Going into a meeting and assaulting people about performance and stuff like that isn't going to get you anywhere and sometimes that appears to be what people think is the way to do it, and it's an unfortunate, if they think that's going to achieve their objectives, well, okay, but people won't survive in that environment. And the current generation that are coming into the workforce, they'll essentially say, get stuffed, I'll go somewhere else. (H)

I think people are tired of getting beat about the head. I think most people in most of these big centres now, that are confronting the problems of winter, know the score. They know what's expected. They know how to do it. They do it to the best of their ability. To continually hammer people and think that by yelling at them, by abusing them, by threatening them is going to make a blind bit of difference, it's not. (H)

This has led to some managers seeing one of their key roles as being to buffer their staff:

Usually if I'm OK, I can buffer the place. Today though, I mean it was just, I felt like saying, for god's sake, do I really need this in my day? So, if I can buffer the organisation then it's okay, they take it out on me, and then I can kind of, I water it down, in terms of the impact on the rest of the organisation. But it wears people, and at the moment our performance is that bad, the pressure is significant, so it's hard for me to buffer it from people, because it's coming from every angle. (H)

I'm a shit-proof umbrella for my staff and now that's exactly how I regard myself. I do all of the blocking between area and the hospital so that there's only one, there's only one way to get to the staff and that's through me because honest to God, they are so busy, they work so hard. (H)
6 Sustainability

The biggest issue to emerge from our interviews in year 2 is the whole question of sustainability. Nobody was confident that CSRP would just keep going on its own. This manifested itself in a number of ways:

- That current reforms have not been going for long enough or reached enough people:

  I think probably for something as big as changing an organisation of 100,000 staff, it takes about five years to achieve that kind of sustainability. (D)

  One of my biggest frustrations is that I believe a sustainable improvement in performance takes time and investment ... The penetration (of clinical redesign) within the organisation is still at very embryonic levels, such that I think if all the resources for clinical redesign were pulled out tomorrow, it would struggle to be sustained in any way, shape or form. (A)

- That clinical redesign is a process of continual improvement, requiring constant re-invention and renewal:

  It’s just a continual reinventing and having to come up with new solutions as the demand increases as it changes. So if you come up with a great set of solutions, and they work for a while, but if you haven’t got that continuous improvement mentality built in, then your performance will go down as the growth keeps going up. (D)

  We’ve seen that’s been apparent with some of the deterioration of performance around off stretch of time. It’s partly demand, it’s partly cycle of the project. You know, we’ve done all this, we put this in place, well, things got a bit tough, tougher now, well, it’s a bit more fragile than we thought, got to go back and redo it. (D)

  For me the issue around a project clinical redesign and hospital management is about the sustainability and the normalisation of ongoing change, and progressively inculcating your people in your organisation to appreciate that improvements in performance are not about going from a conditional State A into a redesign conditional State B, it’s about constant innovation, constant change, constant discussion, constant review about performance. (H)

- That the pressure on people to perform is not sustainable:

  You can see people almost crumbling under it. And I have to say, I do worry. I don’t know where this is going to end, because enormous pressure is being put on people, and with very little recognition of what that’s doing to them. (D)

  No, it’s not. I don’t think it’s sustainable. I mean people now start talking how many more winters they’ve got left, you know what I mean? ... I mean I’m starting to watch my team now fight amongst themselves. We had an evaluation on Friday (and) half an hour was spent on who’s going to do the on call, who’s not going to do the on call, how much on call I do compared to you. (H)

  What I’m seeing, it’s interesting, what I’m saying, you see amongst the senior group now is that, not a resentfulness but, people are genuinely, I think, trying their hardest to maintain performance here under a lot of pressure. Now is that sustainable, I just don’t think it is, you can’t keep up that kind of pressure long term. (H)

  I am worried about it being sustainable because the workforce won’t continue … they can’t continue to have blood squeezed out of them like they are at the moment. (H)
That some aspects of the model might need revision:

*That’s what worries me about sustainable change. There’s not… It’s not happening as a result of redesign. It’s happening as a result of focussing, different focus and different bits of it, bits of the system, rather than redesign.* (A)

*As an overall program of improvement, clinical redesign has clearly got some clear advantages, but it’s like any of the programs, the issue is sustainability. Clinical redesign has a massive capacity to do diagnosis, to do the front end aspects, it does not invest in the back end. And the back end is the most difficult part for the organisation to achieve, and it requires long term sustained effort … So if they’re looking from an investment point of view, they’ve invested really in the front end, they haven’t invested in the back end.* (H)

*Sustainability will depend on how committed the local players are. It’s as simple as that. Particularly where you’ve got external consultants coming in, unless they have empowered the local people as part of that process and engaged them in a way that they feel ownership, the projects and initiatives will wither on the vine. And there’s a very high prospect that that will happen.* (H)

That consideration needs to be given to broader issues such as culture and instilling the appropriate behaviours in key people:

*I don’t know that it’s even now sustained; if you don’t have people in the roles with that same attitude, then it will slip. So it’s about alignment of the people, the behaviours, the culture and the processes that support it that actually delivers that. I still think the people bits are the critical bits … Sustainability is actually built about the whole team at all different levels starting to think that way, and being supportive of the organisation and each other … We’ve focussed on the process part of it, and it’s not until we’re actually going to change the people side: the culture, the behaviours, the attitudes, and the approach, that we’re really going to truly see the sort of level of improvement that we want to see.* (A)

*I don’t think as a system we’ve yet really grappled with what are the key building blocks for sustainment of change. I think we’ve got a good track record of going in and doing the initial things because you’ve picked your brightest people that are the drivers, your changers, your creative people, your flexible people. You’ve put them into a project, you get them to drive the project, we get so far but we’re not good at building the structures in to maintain sustainability. I don’t think the evidence about what builds, what are the key things that need to happen for sustainable change is as clear as one would expect it to be.* (A)

*The issue around implementation is absolutely critical and, in fact, I don’t think we’ve solved it. And I, I think what happens is if you apply pressure, if you apply focus to the system for a short period of time you will get a short period of change, general speaking. If you do something to someone you modify their behaviour and likewise if you do something to the system for a short period of time you’ll get a change in it. The question is whether, when you leave, the system continues to operate – that’s what I think is meant by embedding. My sense is that it operates in two spheres. First of all, have you made a change to management structure so that performance management and following through on results is embedded? And that’s an important question. If you embed that change in your management structure you will continue, you will drive a lot of change down in the system because you’ll just have people who will keep the pressure on, all right? If you don’t make that change in the management structure then you won’t get a change, you don’t stand a chance of getting a change in the system. The second component is: do you actually change the way the system, do you change the drivers that drive current behaviour? Like an emergency department operates in a particular way for a whole lot of reasons – the senior doctors who admit through it, the senior doctors working in it, the nurses. There’s all sorts of influences on the department so that it operates the way it operates now. You come in and say, and drive some temporary change and you leave, if you actually don’t change the drivers and you don’t embed a change in response to the drivers, or you do one or the other, then it’ll just flip-flop back to how it was when you take the pressure off.* (A)

Responses to the survey of projects included a range of comments on the issue of sustainability - ‘sustainability will require ongoing support, education and fine tuning’, ‘changes to practice to date have been reasonably well maintained’, ‘sustainability requires a systematic approach’ and ‘there
still needs to be more successful projects to follow up on the last project and imbed the culture in the hospital that sustainable changes are possible’. In general, respondents were positive about the prospects for sustainability.

To try and gain some quantification of the likely sustainability of the improvements made to date we chose to use a sustainability tool developed in the National Health Service in the UK which is designed to be used prospectively to assist project teams gain knowledge about sustainability and include this knowledge into the development of their projects (Maher, Gustafson et al. 2006). The tool uses a scoring system based on 10 factors (each with four options for scoring) grouped in three categories (Table 14). The factors match well with 7 of the 9 key success factors underpinning our evaluation.

Table 14  NHS sustainability tool – categories and factors

<table>
<thead>
<tr>
<th>Category</th>
<th>Factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Process</td>
<td>Benefits beyond helping patients</td>
</tr>
<tr>
<td></td>
<td>Credibility of the benefits</td>
</tr>
<tr>
<td></td>
<td>Adaptability of improved process</td>
</tr>
<tr>
<td></td>
<td>Effectiveness of the system to monitor progress</td>
</tr>
<tr>
<td>Staff</td>
<td>Staff involvement and training to sustain the process</td>
</tr>
<tr>
<td></td>
<td>Staff attitudes toward sustaining the change</td>
</tr>
<tr>
<td></td>
<td>Senior leadership engagement</td>
</tr>
<tr>
<td></td>
<td>Clinician leadership engagement</td>
</tr>
<tr>
<td>Organisation</td>
<td>Fit with the organisation’s strategic aims and culture</td>
</tr>
<tr>
<td></td>
<td>Infrastructure for sustainability</td>
</tr>
</tbody>
</table>

The two areas with the greatest potential for improvement across all the projects are:
- staff involvement and training to sustain the process
- infrastructure for sustainability.

To give an idea of what this means the explanation of the four levels for each of these factors is included in Table 15, with the aim being to move to the highest level (Level 1).

Table 15  NHS sustainability tool – areas with potential for greatest improvement

<table>
<thead>
<tr>
<th>Factor</th>
<th>Staff involvement and training to sustain the process</th>
<th>Infrastructure for sustainability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level 1</td>
<td>Staff have been involved from the beginning of the change and adequately trained to sustain the improved process</td>
<td>Staff, facilities and equipment, job descriptions, policies, procedures and communication systems are appropriate for sustaining the improved process</td>
</tr>
<tr>
<td>Level 2</td>
<td>Staff have not been involved from the beginning of the change but they have been adequately trained to sustain the improved process</td>
<td>there is an appropriate level of staff, facilities and equipment, but inadequate job descriptions, policies, procedures and communication systems for sustaining the change</td>
</tr>
<tr>
<td>Level 3</td>
<td>Staff have been involved from the beginning of the change but not adequately trained to sustain the improved process</td>
<td>The levels of staff, facilities and equipment to sustain the change are not appropriate although job descriptions, policies, procedures and communication systems are adequate</td>
</tr>
<tr>
<td>Level 4</td>
<td>Staff have neither been involved from the beginning nor adequately trained to sustain the improved process</td>
<td>The staff, facilities and equipment, job descriptions, policies and procedures and communication systems are all not appropriate for sustaining the change</td>
</tr>
</tbody>
</table>
These results indicate the need for adequate infrastructure and staff training (and involvement) to support improved processes.

The highest possible total score for the NHS Sustainability Model is 101. According to the authors of the model, preliminary evidence suggests that a score of 55 or higher offers reasons for optimism that sustainability will be achieved. All bar two of the projects scored higher than 55 (Figure 59). The authors also suggest that a score of 45 or lower indicates a need to take some action to increase the likelihood that an improvement initiative will be sustained. Only one project (Project 15) fell below this mark.

**Figure 59  NHS Sustainability Model – total score**

![NHS Sustainability Model – total score](image)

We return to the key issue of sustainability in our discussion at the end of this report.
7 Discussion and conclusions

We noted at the beginning that our evaluation has two elements:

- **Summative** evaluation, which seeks to ascertain whether and to what extent the Program, was implemented as intended and the desired/anticipated results achieved.
- **Formative** evaluation whereby the results of the evaluation inform the ongoing development and improvement of the Program.

In this section we draw conclusions about each element.

7.1 Summative conclusions

Surgery is a real success story. The health system has, in the past, demonstrated the ability to reduce the number of people waiting longer than 12 months for their surgery but not the ability to keep the number down. This year the number stayed down, with the number of ‘long waits’ being at or close to zero for more than 12 months.

There are strong differences of opinion about whether the improvements to date will be sustainable or not into the future. Only time will tell. However, there is reason for optimism. There is a general view that improved performance in surgery will be easier to maintain than in other clinical areas. Elective surgery is viewed as being more controlled than it used to be. Waiting times for elective surgery have been reduced. One of the key risks for CSRP is that improvements might be eroded by increased demand but, in the case of elective surgery, there is no evidence that this is the case at present.

Project-level and program-level activities have been supported by an emerging multi-level leadership system for managing surgery. This has included congruence around a particular system for elective surgery – ‘separating out’ surgery from emergency work, moving towards standardisation of systems and processes, emphasis on the importance of managing (and planning) surgical capacity and using similar ‘models of care’ (day surgery, extended day only).

A new waiting list policy was issued in March 2006 and provides a very good example of using high-level policy to support actions ‘at the front line’. The association in time between the introduction of the policy and the subsequent decline in both new urgent cases and overdue urgent cases strongly suggest that the new policy was the major factor in the decline.

For both the ED and elective surgery KPIs, there has been a general trend of reduced variation in performance, between AHSs, between metro/non metro AHSs, between individual hospitals, between hospital peer groups and between the evaluation cohorts. From a population/system perspective this is a major achievement. Variation is a relatively innocuous term but when reframed as inequality it takes on a different meaning (Bate, Mendel et al. 2007). Although not considered in these terms in the original CSRP business case, greater equity for those requiring health services in NSW is an important outcome.

Improved performance and reduced variability in performance, whether by hospital, AHS or groups of either, indicates system-wide factors at play (e.g. performance management and additional resources), rather than hospital/CSRP project level factors. The one caveat to the finding about reduced variation relates to what has happened to ED performance in the first half of 2007, where there has been increased variability in performance for the ED KPIs. Based on the responses from hospital general managers, reductions in occupancy rates appears to have been of particular importance in improving EAP in some hospitals.
For the ED KPIs there was consistent improvement over a period of approximately 18 months, from mid-2004 until late 2006. However, since then, the KPIs for EAP, triage 2, triage 3, triage 4 and off-stretcher times have all slightly deteriorated. This has occurred in the context of unprecedented growth in demand for ED services, equating to an increase of around 24% in ED attendances in the last three years. The sustainability of improvements in ED performance will depend on what happens to these KPIs as the health system emerges from winter 2007.

The statewide improvement in EAP commenced about the same time the ABIP started and the statewide improvement in triage category 3 and triage category 4 performance started about a year later. It is not possible to attribute improved EAP to the ABIP and CSRP programs and improved triage performance to the CSRP program. However, it is possible to say that, whatever the reasons, the results that were achieved were consistent with the goals of both programs.

The two worst performers on the ED KPIs are Northern Sydney Central Coast (where EAP, T2, T3, T4, T5 have been declining for many months) and Sydney West where EAP performance has been declining since late 2006 despite a reduction in ED attendances. There are a couple of ‘quiet achiever’ hospitals (particularly Concord and St George) with a steady improvement in EAP over a three year period from mid-2004 to mid-2007. The lessons learned at these hospitals (which could be solicited through in-depth case studies) would potentially be very useful for the rest of the system.

From the beginning of the evaluation the issue of attribution has been flagged as problematic and we are not in a position to assign causation to changes in performance. However, the component that was raised most frequently and consistently in interviews was performance management. A useful way to think about this is as follows:

- The change in the relationship between the Health Department and AHSs resulting from the abolition of area boards was a necessary, but not sufficient, condition for establishing a more robust performance management framework.
- Performance management provided a mechanism for debate, analysis and decision-making about improving performance.
- Additional resources and clinical redesign, at both the project-level and program-level, provided some of the tools to support this debate, analysis and decision-making about performance.

Overall, what was found in the evaluation of the Maggie Program complements our findings to date in the evaluation of the CSRP, which is not surprising given that the Maggie Program established much of the template for the CSRP. There is the potential to use the findings from the two programs to build on the each other and inform the ongoing development of clinical redesign in NSW.

### 7.2 Formative conclusions

We conclude with some reflections on how the scale, depth, reach and durability of the CSRP might be improved further during the next 12 months and beyond. Much of this is not about the program itself but about nurturing the human processes that lie behind it. In the midst of the detail and complexity it is all too easy to forget that service improvement is a social accomplishment (Bate, Mendel et al. 2007), an issue of energising and mobilising staff (‘lighting the bonfire’ – see Section 5.3.3) behind the improvement effort, of getting them to take ownership and responsibility for it and to show greater willingness in innovating and experimenting with new methods and approaches. Our view is that there is still considerable potential locked up in the CSRP that remains to be liberated. A number of the suggestions we make below resonate and align strongly with recent proposals to establish nine streams for CSRP sustainability, especially the proposal to establish a Centre for Healthcare Redesign and leadership development (Brown 2007).
In the business case for CSRP the key risks to the program were identified as:

- not achieving sustainable change
- improvements being eroded by increased demand for patient services
- insufficient Area or hospital management support for the process
- lack of alignment with other key reform initiatives - clinical information systems, corporate shared services, area health service restructure and additional beds
- lack of clinician ‘buy in’.

We refer to these risks in the remainder of this section.

**Current methods and approaches**

As the CSRP has evolved it has come to comprise two main components: project-level activities centred around a large number of projects undertaken under the banner of CSRP and program-level activities that include management of the CSRP program and a range of other activities that have similar objectives to CSRP, particularly around improving performance, that interact with project-level activities in myriad ways. At the project level, solutions generated by a CSRP project can be indistinguishable from other changes emanating from these other activities.

The CSRP business case envisaged CSRP as a fairly radical approach to system change, with a flavour very much that of business process re-engineering, rather than the more classical approach (at least in health terms) of quality improvement/TQM. The term ‘redesign’ was not well defined in the business case, being limited to ‘redesign entails the improved management of patients efficiently through the health system by focussing on specific patient journeys’, and that redesign has three phases - diagnosis, solution design and implementation. Our view is that as CSRP has evolved it has taken more of a ‘middle path’ between the re-engineering approach and TQM (see Section 5.1.3).

The solutions implemented as part of CSRP are generally a mix of quite standard interventions with the emphasis on smaller-scale, incremental change (see Section 5.1.6), findings which are consistent with those from the evaluation of the Maggie Program. This is not to say that a quite simple intervention cannot achieve significant results in a particular situation. Individual solutions may not be as important as the collective effect of multiple solutions. Rather than debating the issue of whether the aim is to achieve transformational or incremental change it may be more helpful at this stage of the development of CSRP to re-frame this with questions such as ‘have we improved?’ and ‘how can we improve further?’ This approach might facilitate integration of activities identified with CSRP with activities undertaken under other banners such as clinical governance.

CSRP is seen as part of a longer sequence of QI/change within the NSW health system but with its own distinctive flavour (see Section 5.1.4) - the scale of what is being done, the commitment of time and resources, the use of external partners, the focus on patients, the drive from the centre and the fact that is CSRP is not something ‘done’ by ‘quality people’ but embraced more widely. The fact that CSRP is building on what has gone before means that it is providing some continuity with the past while at the same time seeking to achieve change through different means. Redesign provides a means of navigating what has been described as the ‘contested border between clinical autonomy and management prerogative’ (Dwyer and Leggat 2002, p 24).

As the program has unfolded a greater level of sophistication is evident:

- The simple distinction between clinical practice and the systems that support clinical practice (supposedly the preserve of CSRP) has become less evident, particularly as the program develops more of a quality and safety focus.
The aged care projects in year 2 include a much higher percentage of solutions to integrate services, improve continuity of care and improve cooperation with external services e.g. residential aged care facilities, with a greater complexity of service providers.

At the beginning of the program measurement was focused heavily on a small number of measures but as time goes on measurement is becoming more sophisticated.

The work on patient experiences

We expressed concern in our first report that there is a certain 'disconnect' in some cases between the initial up-front component of a project (diagnosis and solution design) and the much more difficult, but much less visible, work of implementation - actually making it happen on the ground (the voltage drop between plan and action). We have not changed our view on this issue (see Section 5.6). In 2006/2007 only 34% of monthly project-level KPIs selected for inclusion in the Department’s performance management system were met, indicating plenty of scope for improvement at the project-level.

There is general agreement amongst those we have interviewed that over the last two years there has been an improvement in managers’ ‘understanding of the business’, with a stronger orientation towards efficiency, achieving results and using data to support decisions (see Section 5.5.2). These changes in observed patterns of behaviour may influence deeper levels of culture if they become embedded and part of daily routine but at this stage we are not able to judge whether this is occurring. It may be worth considering a small number of in-depth case studies for year 3 of the evaluation, as suggested in our evaluation plan, to take a ‘deep dive’ into the culture of some organisations. Another reason for doing this is that we still have little understanding of the nature of the local processes and dynamics through which CSRP aims and objectives are being pursued. It is only by studying these at the strategic point where a program and plan become action that we will truly be able to understand the variation between sites, and how sustainable the advances are.

New methods and approaches

There is still tremendous scope for developing and experimenting with ‘new’ improvement methods and approaches within the CSRP, especially now that the external partners have begun to play a diminishing role in the program. They have always been a key feature of the CSRP approach, and our evaluation has shown how much their role and skills have been appreciated and valued by those in the front lines (Sections 5.1.1 and 5.8.1).

Nevertheless, there is another side to consultant involvement of this kind, namely that it can actually end up constraining the scale and innovativeness of a change program. Recent empirical research by (Sturdy forthcoming) and others (Bate and Robert 2007) suggests that the popular impression that management consultants are key to spreading new ideas in organisations is exaggerated and misleading. They concluded that, contrary to widespread belief and the image the consultants themselves often conveyed, they are, like their immediate clients, more ‘knowledge brokers' than innovators. Both groups are often more concerned with managing projects and getting the job done – a ‘transactional’ rather than ‘transformational’ relationship. These authors conclude that, rather than deal with ‘cutting edge’ ideas, consultants therefore tend to deal with fairly conventional and well established ideas and methods, indeed depend for their acceptance upon these not being ‘too new’ or challenging for their clients. Clearly the outcomes and impact of a program like CSRP cannot possibly be ‘transformational’ (as defined and stated in the original business plan) when it has relied as heavily as it has done upon such traditional ‘incremental’ and transactional methods and ideas.

The implication is that the search needs to be widened for newer methods and approaches (see NHS Institute and IHI websites for others), such as experience based design (EBD) which is currently being piloted and developed at Bankstown and John Hunter hospitals as an offshoot of the CSRP. ‘Academic partnerships’ of the kind being developed in the UK by the NHS Institute of Innovation & Improvement, and already mooted in a recent NSW strategy document (Brown, 2007), also represent another way of linking current research with practice. Evidence from the UK
indicates that various organisational factors can improve waiting times in ED e.g. less time lost to nursing sickness, lower ‘non-pay spend’ within a department and a more participative management style of the lead clinician (Mason, Locker et al. 2006), indicating a quite different approach to improving performance which puts a dual emphasis on organizational development (OD) and service development (SD) (the rationale being that services are unlikely to improve over the long term if the OD issues – leadership, team working, workload, roles etc – are not addressed). The proposed new Centre for Health Care Redesign could have a major role to play in this, so long as it – like the NHS Institute for Innovation & Improvement in the UK – concentrates upon designing and piloting new approaches to OD and service improvement rather than simply ‘running programs’.

**Working to make the context for the CSRP more receptive**

‘Context’ is not a given or simply background noise to an improvement program. It is central to it and needs to be managed and developed with the same focus and attention as the program itself (the OD dimension of an improvement project that is often missing). We have already drawn attention to a number of ways in which the receptiveness of the context for the CSRP could be improved and energies and aspirations raised (Section 5.10). For example, it is clear that some key managers have low ambitions for improvement (Section 5.2.3), are overly cautious and avoid taking risks. There is also little dynamic healthy competition between units (Section 5.2.3). These are the result of (what is perceived by many as) a punitive, top down culture (Section 5.2.1), and a structure in which roles, authorities and responsibilities are not as clear as they could be.

The responsibility for leading and implementing the CSRP lies within the HSPIB of the Health Department. The other two components of the Department’s reform strategy (performance management and additional resources) have also been managed by the same branch. Senior managers, both within and outside the Health Department, expressed a wish for a more unified approach to the reform strategy across the whole Department (sections 5.2.1 and 5.3.1).

An important issue is whether the current culture is providing a receptive context for clinical redesign and improvements to performance or whether the ‘right’ culture is likely to evolve from clinical redesign and improved performance. We would see an important emerging role for the Centre as being one of helping to change the culture of the NSW health care system rather than focusing solely on managing top-down programs. We believe that additional consideration needs to be given to broader issues such as instilling the appropriate behaviours in key people.

Only by managing the negative aspects of this context will the resilience and willingness to change be improved. As Neely Gardner, cited in (Bruce and Wyman 1998) stated many years ago, the role of the Program leadership is *not to change the organisation but to create a changing organization*, one that has the capability and willingness to learn and change itself. We have also indicated areas where the context is already receptive, and would encourage the program leadership to reflect upon how this can be made more so.

There are a number of challenges with regard to providing a receptive context:

- The need to focus on corporate priorities while recognising that professional bureaucracies exist and are not going to go away:

- The scientific approach to management exemplified by CSRP has to take account of the ‘softer’ humanistic approach required to manage people.

- ‘Top down’ pressure for change should provide room for ‘bottom up’ innovation.

- Individual accountability (very much a feature of the performance management approach) has also to recognise the importance of developing a team approach to problem solving:

- The extensive monitoring undertaken as part of CSRP needs to give way at some stage to greater trust that redesign can occur without being driven so hard from the centre.

- Competition may have its place but if it is not done wisely it can reduce collaboration:
A greater emphasis on leaders and leadership development

Those involved in the CSRP drew attention time and time again to the importance of leadership to the long term success and sustainability of the CSRP (Section 5.5). In this regard there needs to be greater clarity about who is leading the program, how the different levels of leadership relate and how it should be led – the appropriate leadership style and role model for others to follow. At present, leadership styles vary from the autocratic to the democratic to the laissez-faire, and this may account at least in part for the variation in process and results.

There is a strong case for greater emphasis upon leadership development in the CSRP. This is already recognised by the Health Department and is again proposed in the draft sustainability strategy (Brown 2007). The highly commended NHS ‘Delivering Through Improvement Network’ is one model that the Health Department may wish to investigate further. It is all too easy to overlook management development or to rate it as less important than leadership development but we have seen that improvement projects frequently fail in implementation and this is as much a management issue as a leadership issue. Indeed, one of the key risks identified in the original CSRP business case was ‘insufficient Area or hospital management support for the process.’ Education and development programs are integral to the success and sustainability of improvement programs like CSRP (Bate, Mendel et al. 2007) – simply put, ‘no learning, no change.’

A stronger focus on quality/experience and more even balance between the three elements of performance, safety and quality.

There is general agreement that the increased focus on targets and performance is a good thing, with concerns not about performance management per se but the narrowness of the indicators that are being used to judge performance and how these are being applied. There is some concern (at all levels) that there has been too much of an emphasis on certain areas, particularly EDs, and that this is resulting in some distortion (tunnel vision) and a need to broaden the emphasis. In part, this is already occurring with the move to complex, area-wide, aged care projects that involve working with a broad set of stakeholders.

Although progress has been made since our first year evaluation, ‘patient experience’ still remains largely on the periphery of people’s minds and projects (Section 4.1.2), yet the evidence is that this is the key factor that turns a system from ‘good’ to ‘great’, and leads to qualitative, step change improvements in a service (Robert and Bate 2007). Comments from the interviews indicate that making patient experience more central to the framing of the CSRP would have a positive impact on raising levels of clinician engagement in the program (a further key risk in the CSRP business case being the lack of clinician ‘buy in’, an issue we discuss in more detail in Section 5.3.3) – patients not performance being the most powerful ‘hooks’ or ‘attractors’ for clinicians. The findings also show (Section 5.1.4) that many people would welcome a more even balance between the three elements, and would respond positively to a widening of the KPIs to embrace this.

Sustainability

The biggest issue to emerge from our interviews in year 2 is the whole question of sustainability (see Section 6), which was one of the five key risks identified for the CSRP in the original business case. Nobody was confident that CSRP would just keep going on its own but there is no call either for the focus on performance and the work to redesign the system (whether as part of a formally constituted program or not) to be abandoned. The pressure on those working at AHS and hospital level to perform is seen as not being sustainable, the pressure is simply too great.

From the responses to using the NHS Sustainability Tool (Section 6) the two areas with the greatest potential for improvement across all the projects are:

- staff involvement and training to sustain the process
- infrastructure for sustainability.
This accords with our own observations. It is clear from our year 2 interviews that many senior and middle managers are working at a pace and in a way that is simply not sustainable. Undoubtedly redesign and system improvement is hard work. Many people we interviewed spontaneously commented that they felt close to exhaustion and some people in the Department recognise this:

*You can see people almost crumbling under it. And I have to say, I do worry. I don't know where this is going to end, because enormous pressure is being put on people, and with very little recognition of what that’s doing to them.* (D)

A circuit breaker is required. On the one hand, improving the performance of the NSW health system is demonstrably hard work and many people involved are paying the price. On the other, there is no reason to stop and every reason to continue. Demand on the NSW health system will continue to increase and the system will not improve further on its own. There is no choice but to keep going. The challenge now is how to do so in ways that are sustainable both for the NSW health system and those who work in it.

The circuit breaker proposed by the Health Department is its strategy (Brown 2007) to create a sustainable framework for ‘redesign principles’ so that they become widespread across the NSW health system. The strategy has nine streams of aligned activity and is designed to pass ongoing responsibility from the Health Department to each AHS from May 2008 onwards. The nine streams are:

1. Creation of a “redesign school”, to be known as the Centre For Healthcare Redesign (CHR)
2. Creation of an e–learning platform
3. Engaging clinicians
4. Communications plan
5. Chief Executives drive the change
6. Patient journey and experience becomes core
7. Capability development
8. IT to underpin new processes
9. Financial analysis and reporting

A key question for Year 3 of the evaluation will be the readiness of AHSs to take on implementing these recommendations across the 9 streams and whether this provides the circuit breaker that the CSRP now requires.
8 References


Mason, S., T. Locker, et al. (2006). What are the organisational factors that influence waiting times in emergency departments?, National Co-ordinating Centre for NHS Service Delivery and Organisation R & D.


NSW Health (1999). A framework for managing the quality of health services in New South Wales. Sydney, Department of Health NSW.


Appendix 1

Evaluation methodology

A wide range of activities are undertaken as part of the CSRP; for example, the work of VEM, the work on patient and carer experience, project-level reporting, monthly performance reports and examination of particular issues as the program evolves e.g. review of consumer input in 2006 and implementation checks conducted in 2007. There is the potential for overlap and duplication between these activities and in our methodology we have sought, where possible, to avoid this.

Quantitative data analysis

In order to evaluate the impact of the CSRP, the necessary first step is to establish what the pre-existing trend has been over a period of time. The method used is to undertake a time series analysis of the KPIs associated with emergency admission performance (EAP), triage times, waiting lists for elective surgery and off-stretcher times. A time series may contain factors such as an underlying trend, seasonal variation, and short term irregular or random variation. Seasonal adjustment has been used to estimate seasonal variation and remove it from a time series to more clearly show the underlying trend and other types of variation. This method is useful when there are consistent seasonal patterns occurring in the data. Different methods are available and the method chosen is the X-11 method, a widely used tool for seasonal adjustment described in more detail in our first report. The time series analysis starts in 1999.

The remaining KPI and its associated target (a 5% pa reduction from the predicted trend line in the number of ED attendances by patients with chronic disease) was an attempt to measure the effectiveness with which chronic conditions are managed in the primary sector, reducing the number of acute episodes that have to be managed in hospital. From the beginning of the evaluation we have had concerns about the practicality of operationalising this KPI based on the data collected in the Emergency Department Information System (EDIS). We have not been able to identify a suitable definition, and neither has the Health Department. Hence we are unable to report about progress in achieving this KPI.

Document analysis

The Health Department has made available to us a very large amount of documentation regarding the CSRP including the material readily available on the ARCHI web site (particularly project reports), internal reports by the Health Department, reports produced by area health services and reports on specific activities e.g. the reports by Value Enhancement Management and a draft report on the patient experiences. These have been used to inform the evaluation and are referred to throughout this report.

Interviews and meetings

We have interviewed staff at central, area health service and hospital level to inform the evaluation. In year 1 this focused on program implementation and included staff working in the central program office, staff working in area CRUs and staff working on projects, typically as project leads on CSRP projects. Consultants from each of the external partners were also interviewed. In year 2 we interviewed senior managers in the Health Department, area health services and hospitals. Within the Health Department this included those working within the Health Services Performance Improvement Branch as well as other directorates and branches. Interviewees from area health services included the positions of chief executive, director of clinical operations, director of nursing, director of clinical governance and director of population health, planning and performance. Hospital-level interviewees were either general managers or directors of nursing. In total, 102 people in the first two years of the evaluation were interviewed (Table 16).
An interview schedule was developed for the interviews summarising the topics to be discussed. The style and approach for the interviews was semi-structured, open-ended and conversational in tone, leaving space to follow issues that interviewees wanted to talk about.

### Table 16  External evaluation interviews

<table>
<thead>
<tr>
<th>Level</th>
<th>Year 1</th>
<th>Year 2</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>No. of interviews</td>
<td>No. interviewed</td>
</tr>
<tr>
<td>Hospital/project</td>
<td>9</td>
<td>18</td>
</tr>
<tr>
<td>Area health service</td>
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<td>21</td>
</tr>
<tr>
<td>Health Department</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>External partners</td>
<td>8</td>
<td>13</td>
</tr>
<tr>
<td>Others</td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>33</strong></td>
<td><strong>58</strong></td>
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</tbody>
</table>

Interviews in year 2 averaged 65 minutes in length. Six people declined to be interviewed and two did not respond to the invitation to be interviewed. Of these eight people, six had already been interviewed by VEM as part of their work, perhaps suggesting a degree of ‘interview fatigue’. Two people who accepted an invitation to be interviewed resigned after the interview had been arranged but before the interview could take place. Interviews were recorded digitally, except for one instance in year 1 and one instance in year 2 where the interviewee preferred that the interview was recorded by the taking of notes.

In year 1, the interviewer listened to the recordings and extracted salient points and quotations. In year 2, the interviews were transcribed to facilitate more in-depth discussion and analysis amongst members of the evaluation team in Australia and the UK. Except where recordings were unclear the accuracy of the transcripts was about 99%. While a suitable level of accuracy for identifying themes this was not considered accurate enough for the inclusion of quotations so each transcript was compared with the original recording and corrected where possible. Content analysis was undertaken using Leximancer document mapping software. Quotations in this report are attributed to interviewees by A (area health service), EP (external partner), D (Department of Health), H (Hospital) and P (project level).

Members of the evaluation team also attended various meetings with Department of Health staff to improve understanding of the CSRP, attended some of the weekly program management meetings and six performance management meetings between the Department of Health and AHSs.

**Survey and sustainability tool**

We developed a survey tool for distribution to projects implemented in 2005/2006 in order to gather information about, for example, participants’ perceptions about what had been achieved, what had been learnt, what helped and what had hindered project implementation. This was primarily undertaken because there had not been any kind of system-wide approach to internal project-level evaluation. Subsequently, the Health Department distributed evaluation guidelines to area health services in November 2006, which we anticipated would result in project-level evaluations being undertaken, making a repeat of our survey in 2007 unnecessary. However, this did not eventuate. Hence, we decided to repeat the survey in 2007 for those projects commenced in 2006/2007.

The nature of some of the survey questions meant that there was little point in asking projects in their very early stages to participate in the survey. A list of projects included in the survey is included in Appendix 3. The Sydney South West AHS conducted their own project-level evaluations in 2007, using both the survey tool developed by us and the sustainability tool. Rather than re-survey these projects we have incorporated the results from two of these projects in our
own results. In year 2 of the CSRP there has been a major focus on aged and chronic care projects, the most advanced of which were still in the early stages of implementation by June 2007. Hence, none of these projects were included in the survey. We propose to examine these projects as a distinct cohort in our final report. Because of their heavy involvement in their own internal evaluation, the five CSRP projects in the Hunter New England AHS in year 1 were excluded from the survey.

The survey was sent to a total of 29 projects in September 2006 and August 2007. Some responses were completed by project leads, some by CRU staff and some involved up to four staff, including project sponsors and key managers. Completed surveys were received from 22 projects, a response rate of 76%. Given all the other demands to provide information, we consider this to be an extremely good response. Each project was also sent a copy of the NHS Sustainability Model to complete (for details see our first report), given the importance of the issue of sustainability and the ‘fit’ between that tool and the evaluation strategy. The projects in the HNEAHS in year 1 agreed to complete the tool. The response rate to the sustainability tool was 56% (19/55).

**Ethics approval**

We applied to, and receive approval from, the University of Wollongong / Illawarra Area Health Service Human Research Ethics Committee and the NSW Department of Health Ethics Committee. All data collected will be retained by the evaluation team in de-identified form in accordance with standard ethics committee requirements.
Appendix 2

Evaluation of the Maggie Program

Established in 2002, the Maggie Program had undertaken 27 major projects in the four years leading up to the evaluation. The evaluation was carried out under the direction of a Steering Committee with internal and external representation and by an evaluation team which was also made up of internal and external expertise. The evaluation approach was rigorous and included:

- An extensive review of health service reform and change management literature
- 110 taped and transcribed key informant interviews
- 15 taped and transcribed focus groups
- 417 completed staff surveys
- 27 patient diaries
- Case studies
- Analysis of existing data sets

The evaluation was built around nine key evaluation questions (Figure 60).

Figure 60  Program logic model and primary evaluation questions

Outcomes

2. To what degree has the Program been effective in achieving the Program aims?
3. What have been the other (direct and indirect) benefits of the Program?

7. Do the outcomes achieved justify the investment of resources?

Inputs

4. How well has the Program been implemented and sustained?
5. What are the critical success factors and barriers to achieve and sustain ongoing improvement?

8. Have we used the best possible approach for reform?
9. What is the best approach for future reform?

Environment

2. To what degree has the Program been effective in achieving the Program aims?
3. What have been the other (direct and indirect) benefits of the Program?

Maggie Program (open system)

1. What is the Maggie Program and how and why has it changed and developed over time?

6. What lessons can we learn from our failures?

Source: (McDonald, Swan et al. 2006)

The evaluation found that the Maggie Program had involved over 2,000 staff and consumers across 27 major projects. It began with enthusiasm and a belief that it would lead to radical improvements in the delivery of care.

The Maggie methodology, on which the CSRP is based, remained largely unchanged over the four years. However, there was variability in the rigour of its application. As with the CSRP to this point, post implementation monitoring was found to be largely related to process and efficiency measures rather than effectiveness and patient satisfaction.
In relation to patient satisfaction, the evaluation reported good results in a couple of departments, but not the level and scale of improvement after four years that was originally envisaged. Similar to many CSRP projects, it was difficult to draw a direct link between patient satisfaction survey results and specific Maggie projects.

The results for patient access were mixed, with some hospitals showing an improvement. In other cases, there was either no change or reduced access following a project. The most marked improvements in access were in access block and some triage categories. These were strongly correlated with Maggie projects although other factors also contributed.

In particular, access block and triage at John Hunter Hospital and access block at Belmont District Hospital improved dramatically, both from a local and State perspective. These improvements occurred against a background of markedly increased activity. These same hospitals also improved in their average length of hospital stay.

As with other programs, there were no appropriate program measures of patient safety or effectiveness of care. However, the majority of staff interviewed perceived that the Program had positively impacted on safety and effectiveness.

The evaluation measured results for all project level performance measures. Overall, there was an improvement in 38%, a decline in 17% and no change in 45% of the measures. The most improvement was reported for access measures.

It had been expected that the Maggie Program would lead to increased staff satisfaction. In the event, this was not measured comprehensively but at the six sites where it had been measured, there was improvement at only one site.

The staff survey found that only 31% of respondents indicated there had been an improvement in teamwork in their local unit or service. Overall ratings for cooperation between relevant units/services was slightly lower (28%).

Many of the findings of the Maggie evaluation are consistent with our emerging findings in relation to CSRP. As with the CSRP, there were significant challenges and high expectations of the Maggie Program. The evaluation found that, while there was widespread support for the Program’s principles, there was less certainty regarding the highly structured phased approach in which these principles were applied across all projects.

An important finding was that the best results occurred in the initial projects. Key features of the most successful projects included rigorous application of the methodology, leadership and the project scope being limited to a single department. The evaluation found critical success factors at three levels (Table 17).
### Table 17 Maggie Program – critical success factors

<table>
<thead>
<tr>
<th>Program implementation</th>
<th>Project implementation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clear and compelling vision</td>
<td>Transparency regarding funding decisions for solutions</td>
</tr>
<tr>
<td>Visible Executive leadership and commitment</td>
<td>Genuine review of existing resource utilisation</td>
</tr>
<tr>
<td>Strategic alignment and operational direction with clarity of outcomes</td>
<td>Clear outcome measures that are balanced across efficiency, effectiveness and consumer measures and aligned to the organisation’s strategy</td>
</tr>
<tr>
<td>Strategic and expert project selection</td>
<td>Middle management, including clinician manager, capability for change management</td>
</tr>
<tr>
<td>Senior management capability</td>
<td>Patient centred perspective maintained</td>
</tr>
<tr>
<td>Senior management accountability for reform performance</td>
<td>Balance between top-down and bottom-up</td>
</tr>
<tr>
<td>Program integration with other reform agendas, particular quality management activities, management development programs and strategic planning</td>
<td>Realistic scope, objectives and timeframe to deliver positive project outcomes</td>
</tr>
<tr>
<td>Management of expectations regarding resource decision making</td>
<td>Skilled project management for rigorous application of the Maggie principles</td>
</tr>
<tr>
<td>Program communication strategies with clear messages</td>
<td>Flexible approach with a suitable methodology to meet project objectives</td>
</tr>
<tr>
<td>Evaluation and feedback for Program development</td>
<td>Medical leadership and participation for projects that require changes to direct care activities</td>
</tr>
<tr>
<td>Knowledge management strategy and peer reviewed publications</td>
<td>Ownership by the local team</td>
</tr>
<tr>
<td>Program resource support</td>
<td>Cultural factors addressed for improved clinician/manager relationships</td>
</tr>
<tr>
<td></td>
<td>Benefits and incentives for staff participation</td>
</tr>
<tr>
<td></td>
<td>Robust process for issue and solution prioritisation</td>
</tr>
<tr>
<td></td>
<td>Selection of relevant reporting measures with a simple system for data reporting and feedback</td>
</tr>
</tbody>
</table>
### Sustainable performance management

- Resources, structures and access to data for ongoing review
- Alignment to organisational strategy with ongoing feedback of priorities to local management
- Maintaining a balance of efficiency measures that are relevant to management and clinical outcome measures that are relevant to clinicians
- Linkage of Performance Improvement Teams to regular business and clinical meetings such as peer review and departmental management meetings to better align clinical and management activities
- Understanding of methodologies for and capability in continuous process improvement among front line managers and clinician managers
- Medical leadership by the Head of Department accompanied by management support and drive
- Staff who have skills, capability and enthusiasm to support the continuous process improvement activities and can operate autonomously at facility, divisional or department level
- Ongoing improvement across the micro and macro systems of care that reduce the “silo” mentality
- Clear benefits for staff and patients for continued improvement
- Embedding a culture that uses the Maggie improvement principles as a way of doing business
- Success and recognition to establish a “can do” attitude

In terms of costs, the direct cost of the Program far exceeded the direct savings that could be calculated. Nevertheless, this ignores the significant intangible benefits that were reported such as improved teamwork and increased management capability. As the evaluation report noted, the lack of clinical outcome measures in areas such as appropriateness and effectiveness of care also limit any estimate of a cost-benefit ratio.

The evaluation concluded that a highly structured, planned approach in all projects did not appear to result in significantly improved outcomes in highly complex multiple department and Area-wide projects. This is consistent with the literature that structured planned approaches are not always the best way to approach highly complex systems problems.
### Appendix 3

**Projects in-scope for the evaluation**

<table>
<thead>
<tr>
<th>Project No.</th>
<th>Project name</th>
<th>Project survey</th>
<th>Review of solutions</th>
<th>Implementation check</th>
<th>External partner rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ambulance</td>
<td>Ambulance SWITCH project</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td></td>
</tr>
<tr>
<td>CHW 1</td>
<td>Periop: joining the dots</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td></td>
</tr>
<tr>
<td>CHW 2</td>
<td>ED core diagnosis ward and isolation short stay</td>
<td>Y</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DOH 1</td>
<td>Statewide chronic care CHIME</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td></td>
</tr>
<tr>
<td>DOH 2</td>
<td>Statewide cardiology</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td></td>
</tr>
<tr>
<td>DOH 3</td>
<td>Statewide mental health</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td></td>
</tr>
<tr>
<td>GS 1</td>
<td>Surgical redesign</td>
<td>Y</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GW 2</td>
<td>Dubbo surgical flow</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td></td>
</tr>
<tr>
<td>GW 3</td>
<td>Discharge planning – Bathurst Dubbo, Orange,</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td></td>
</tr>
<tr>
<td>GW 4</td>
<td>Cardiology patient flow</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GW 5</td>
<td>Aged and chronic care</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HNE 1</td>
<td>Acute Mental Health (adult)</td>
<td>N</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HNE 2</td>
<td>Transfer care coordination</td>
<td>N</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HNE 3</td>
<td>Maitland Hospital After Hours Theatre Access</td>
<td>N</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HNE 4</td>
<td>Community mental health (adult)</td>
<td>N</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HNE 5</td>
<td>Newcastle Mater access block</td>
<td>N</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HNE 6</td>
<td>Booked surgery flows</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HNE 7</td>
<td>Older person’s journey</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NC 1 &amp; 2</td>
<td>Lismore Base Hospital ED / patient flow</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td></td>
</tr>
<tr>
<td>NC 3</td>
<td>Tweed Hospital Patient Flow</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>NC 4</td>
<td>Port Macquarie Base Hospital Patient Flow</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td></td>
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<tr>
<td>NC 5</td>
<td>Older person’s and chronic care patient journey</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>NSCC 1</td>
<td>Mental health redesign (RNSH and Hornsby)</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td></td>
</tr>
<tr>
<td>NSCC 2</td>
<td>Royal North Shore Hospital ED</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td></td>
</tr>
<tr>
<td>NSCC 3</td>
<td>Surgical journey</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NSCC 4</td>
<td>Aged and complex care</td>
<td></td>
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<td></td>
<td></td>
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<tr>
<td>SESI 1</td>
<td>St George ED patient flow (Dragon)</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td></td>
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<tr>
<td>SESI 2 &amp; 4</td>
<td>Wollongong ED / patient flow</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td></td>
</tr>
<tr>
<td>SESI 3</td>
<td>St Vincent's Hospital ED Patient Flow</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td></td>
</tr>
<tr>
<td>SESI 5</td>
<td>POW Improving discharge, improving access</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td></td>
</tr>
<tr>
<td>SESI 7</td>
<td>PECC (St Vincent’s and St George)</td>
<td>N</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SESI 9</td>
<td>POW ED patient flow</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td></td>
</tr>
<tr>
<td>SESI 11</td>
<td>St Vincent’s discharge JONAH</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td></td>
</tr>
<tr>
<td>SESI 12</td>
<td>Sutherland ED</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>SESI 13</td>
<td>Older persons and chronic care</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Project No.</td>
<td>Project name</td>
<td>Project survey</td>
<td>Review of solutions</td>
<td>Implementation check</td>
<td>External partner rating</td>
</tr>
<tr>
<td>------------</td>
<td>-------------------------------------</td>
<td>----------------</td>
<td>---------------------</td>
<td>---------------------</td>
<td>-------------------------</td>
</tr>
<tr>
<td>SSW 1</td>
<td>Surgical demand</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>SSW 2</td>
<td>ED Mental Health</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>SSW 3</td>
<td>Liverpool Hospital Patient Flow</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>SSW 4</td>
<td>Royal Prince Alfred Hospital Patient Flow</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>SSW 5</td>
<td>Bankstown patient flow</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>SSW 6</td>
<td>Concord patient flow</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>SSW 7</td>
<td>Aged care</td>
<td></td>
<td></td>
<td></td>
<td>Y</td>
</tr>
<tr>
<td>SW 1</td>
<td>Cardiovascular patient flow</td>
<td></td>
<td></td>
<td></td>
<td>Y</td>
</tr>
<tr>
<td>SW 2</td>
<td>Surgery</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>SW 3</td>
<td>Access and patient logistics</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>SW 4</td>
<td>Blacktown ED</td>
<td>Y</td>
<td></td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>SW 5</td>
<td>Westmead pathology</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SW 6</td>
<td>Mental health</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

In addition, there are a number of projects that do not follow the normal diagnosis, solution design, implementation planning and implementation path, primarily because they are about increasing capacity in the health system (e.g. or answering specific questions (e.g. environmental scans in the rural AHSs):

- DOH Joint replacement (gain share) model
- DOH Colonoscopy provision models of care
- GS Change readiness assessment
- GS Bega valley (economic analysis)
- GS Management development
- GS LEAD program
- GW Environmental scan
- GW Capacity development
- GW Patient flow across EDs
- NC Environmental scan
- SESI Performance culture
- SSW Performance framework and culture
## Appendix 4

### Solutions developed in response to patient and carer interviews

<table>
<thead>
<tr>
<th>Project</th>
<th>Solutions developed in response to patient interviews</th>
<th>Progress with Implementation</th>
<th>2\textsuperscript{nd} round of interviews</th>
</tr>
</thead>
<tbody>
<tr>
<td>GW Cardiac</td>
<td>Cardiac pathways&lt;br&gt;Initiation of bed-side Troponin testing in ED&lt;br&gt;Co-location of services for cardiac patients</td>
<td>Pathways being trialled. Business case under consideration for other two solutions</td>
<td>Nov 2007</td>
</tr>
<tr>
<td>GW Aged Care</td>
<td>Patient and carer experience workshop</td>
<td></td>
<td></td>
</tr>
<tr>
<td>GS Bed management</td>
<td>Appoint patient flow coordinator&lt;br&gt;Revised RFA form</td>
<td>Implemented</td>
<td>Aug 2007</td>
</tr>
<tr>
<td>NC Older person journey</td>
<td>Develop patient/carer information&lt;br&gt;Processes to ensure efficient transfers of care&lt;br&gt;Improved system navigation&lt;br&gt;Locate Stream A near ED&lt;br&gt;Develop staffing profiles&lt;br&gt;Staff education and training</td>
<td>Implementation commences July 2007</td>
<td>Not known</td>
</tr>
<tr>
<td>NSCC Older person journey</td>
<td>Long list of solutions including:&lt;br&gt;Patient needs assessed on individual basis&lt;br&gt;New or expanded models of care&lt;br&gt;Greater involvement of patients and carers&lt;br&gt;Team building and staff education&lt;br&gt;Self-management interventions&lt;br&gt;Clinical pathways&lt;br&gt;Patient admitted to home wards&lt;br&gt;Streamlining of referrals and systems&lt;br&gt;Increased medical engagement for discharge management</td>
<td>Implementation commences July/August 2007</td>
<td>Aug 2007</td>
</tr>
<tr>
<td>HNE Surgical project</td>
<td>Informing design of solutions for the whole project, focusing on inclusion of patients in decision making</td>
<td>1\textsuperscript{st} phase to be completed Dec 2007</td>
<td>Nov 2007</td>
</tr>
<tr>
<td>HNE Surgery (Manning Hospital)</td>
<td>Postoperative process guidelines for both adult and paediatric patients&lt;br&gt;Mechanisms to improve patient information and involvement in the postoperative care discharge planning process</td>
<td>20 Aug 2008</td>
<td>Oct 2007</td>
</tr>
<tr>
<td>HNE Mental health</td>
<td>Involve patients and carers in discharge planning&lt;br&gt;Consumer and carer brochure&lt;br&gt;Multidisciplinary clinical reviews&lt;br&gt;Transition out of community mental health to be agreed with patient and carer&lt;br&gt;Community communication strategy&lt;br&gt;Early intervention therapy</td>
<td>In final stages of developing solutions (July 2007)</td>
<td>Not scheduled</td>
</tr>
<tr>
<td>SESI Patient</td>
<td>Implement an access and referral centre</td>
<td>Implementation</td>
<td>Sept &amp; Nov 2007</td>
</tr>
<tr>
<td>Project</td>
<td>Solutions developed in response to patient interviews</td>
<td>Progress with Implementation</td>
<td>2nd round of interviews</td>
</tr>
<tr>
<td>------------------</td>
<td>-------------------------------------------------------</td>
<td>------------------------------</td>
<td>-------------------------</td>
</tr>
<tr>
<td>flow</td>
<td></td>
<td>planning to commence Aug 2007</td>
<td>(but for different project)</td>
</tr>
<tr>
<td>SSW Patient flow</td>
<td>No information</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SSW Cardiology</td>
<td>Various strategies mentioned that are already in place</td>
<td></td>
<td>Nov 2007</td>
</tr>
<tr>
<td></td>
<td>Staff education</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Additional exercise stress testing clinic (options being explored)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Chest pain clinic (under consideration)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Reference: (NSW Health 2007)