The NSW Clinical Services Redesign Program: achievements and lessons

*NSWClinicalServicesRedesignProgram:AchievementsAndLessonsNSWClinicalServic
esRedesignProgram:AchievementsAndLessonsNSWClinicalServicesRedesignProgra
m:AchievementsAndLessonsNSWClinicalServicesRedesignProgram:AchievementsA
ndLessonsNSWClinicalServicesRedesignProgram:AchievementsAndLessonsNSWCli
nicalServicesRedesignProgram:AchievementsAndLessonsNSWClinicalServicesRede
signProgram:AchievementsAndLessonsNSWClinicalServicesRedesignProgram:Achie
vementsAndLessonsNSWClinicalServicesRedesignProgram:AchievementsAndLesso
nsNSWClinicalServicesRedesignProgram:AchievementsAndLessonsNSWClinicalSer
vicesRedesignProgram:AchievementsAndLessonsNSWClinicalServicesRedesignPro
gram:AchievementsAndLessonsNSWClinicalServicesRedesignProgram:Achievement
sAndLessonsNSWClinicalServicesRedesignProgram:AchievementsAndLessonsNSW
ClinicalServicesRedesignProgram:AchievementsAndLessonsNSWClinicalServicesRe
designProgram:AchievementsAndLessonsNSWClinicalServicesRedesignProgram:Ac
hievementsAndLessonsNSWClinicalServicesRedesignProgram:AchievementsAndLes
sonsNSWClinicalServicesRedesignProgram:AchievementsAndLessonsNSWClinicalS
ervicesRedesignProgram:AchievementsAndLessonsNSWClinicalServicesRedesignPr
ogram:AchievementsAndLessonsNSWClinicalServicesRedesignProgram:Achieveme
ntsAndLessonsNSWClinicalServicesRedesignProgram:AchievementsAndLessonsNS*

Centre for Health Service Development

UNIVERSITY OF WOLLONGONG

and

University College London

UCL

October, 2008

Kathy Eagar

Malcolm Masso

Glenn Robert

Paul Bate

Suggested citation

Eagar K et al (2008) ***The NSW Clinical Services Redesign Program: achievements and lessons*** Centre for Health Service Development, University of Wollongong

Table of Contents

List of Tables

List of Figures

Introduction

In 2005 NSW Health embarked on an ambitious program to achieve transformational reform of the NSW health system. At a total cost of $70m over 3 years, the Clinical Services Redesign Program (CSRP) was established to achieve 'deep seated structural and cultural reform of traditional work practices'. The NSW health system would manage patient care efficiently to 'reduce delays and minimise risks and to enable clinicians to be at the forefront of the reform process' (CSRP Business Case 2004). The focus would be on specific patient journeys such as elderly patients admitted through emergency departments, patients requiring elective procedures and patients with chronic disease.

The CSRP was one of three strategies adopted by NSW to transform the performance, quality and safety of the NSW health system. The other two strategies were a significant increase in resources (including additional 1,811 hospital beds between 2004 and 2006) and top down performance management. In practice, these three strategies were interlinked and the impact of each impossible to separate.

Three years on, the NSW health system has not undergone transformational change. Nevertheless, there have been some notable improvements and successes in some areas and the CSRP experience has provided some valuable lessons for the future.

The CSRP

The CSRP was funded to operate at three levels: a central CSRP unit to provide overall direction, develop system capacity and be responsible for knowledge management; clinical redesign units (CRUs) in each area health service and, at the service level, a series of redesign projects around specific aspects of care.

There were 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.

At the project level, the CSRP adopted a standard methodology with three distinct phases:

- **Diagnostic phase** using techniques such as process mapping workshops, staff interviews, and data analysis to identify the problems to be solved
- **Solution design phase** during which frontline staff, management and patients develop solutions to the previously identified issues
- **Implementation phase** in which local management would be held accountable for implementing the solutions and monitoring patient throughput by means of an agreed set of regularly reviewed indicators.

While what was proposed was radical, ('deep seated structural and cultural reform of traditional work practices') the CSRP methodology was similar to business process re-engineering approaches internationally.

In addition, there were 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 had links with the reform agenda.

The evaluation

The external evaluation of the CSRP was undertaken by the Centre for Health Service Development, University of Wollongong, in partnership with 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. Subsequent annual reports were delivered in October 2007 and October 2008. The evaluation had two elements:

- Formative evaluation whereby the evaluation would be a tool for learning and reflection and inform the ongoing development and improvement of the CSRP itself.
- Summative evaluation to ascertain whether and to what extent the CSRP was implemented as intended and the desired/anticipated results achieved.

This publication summarises key findings and key lessons from the 3 year independent evaluation of the CSRP and reflects back on the whole program to identify key themes, with a particular emphasis on providing suggestions for the future. More detailed information about the evaluation methods and its findings can be found in the three annual evaluation reports that have been produced over the life of the evaluation.

Emergency Department performance

Key finding
ED performance improved significantly in the first year, peaked in 2006/07 and declined slightly again in 2007/08.

The CSRP Business Case specified a number of key performance indicators for ED. Figure 1 below shows the percentage of ED attendances that meet these KPIs over the 3 years of CSRP and in the year before.

Figure 1 The percentage of ED attendances meeting the KPI

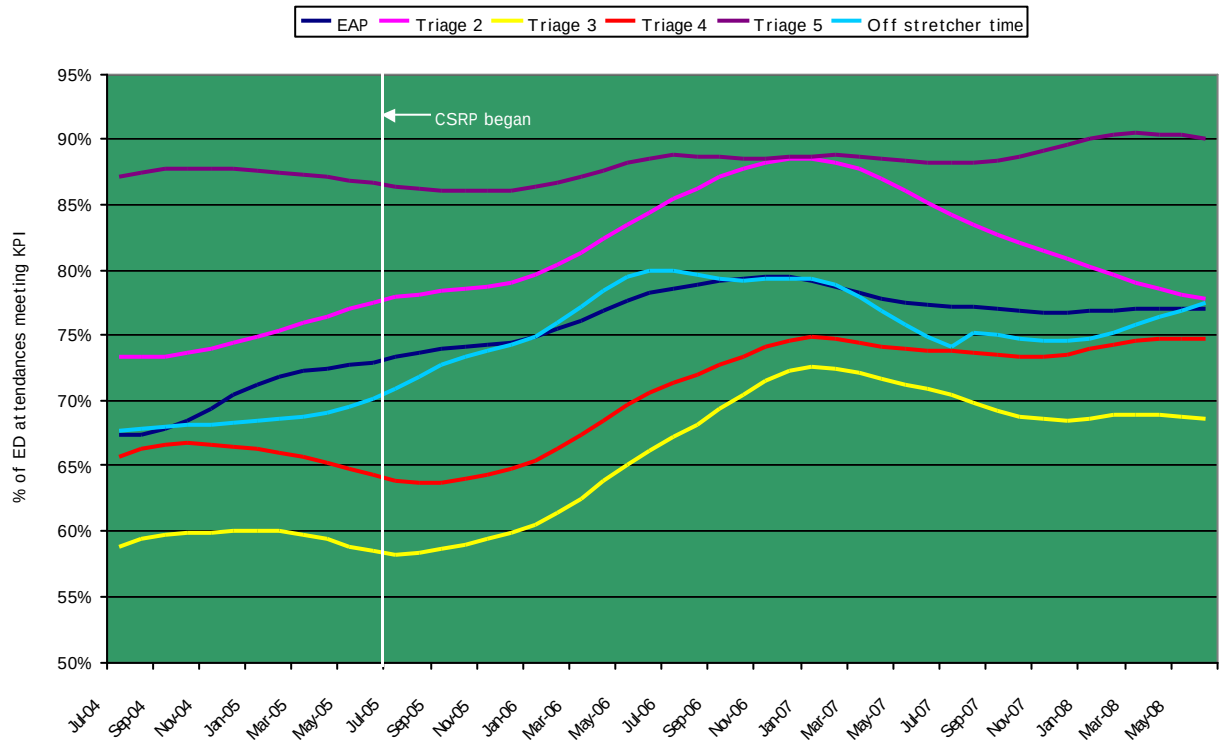


Table 1 provides more detail on the ED results against the KPIs set out in the original business case.

Table 1 Key performance indicators for emergency departments as at June 2008

Indicator	CSRP target (by June 2008)	Performance at end June 2008	CSRP target met at June 2008
Emergency Admission Performance (EAP)	All hospitals >80%	After a five year period of decline (1999-2004) EAP improved markedly from mid-2004 and peaked at 79% in October 2006. It was 77% in June 2006 and remained at around that level throughout 2007/08. It was 77% in June 2008. Principal referral hospitals shown the greatest improvement (around 25%) and are now performing about 2% below major metropolitan hospitals. EAP for major non-metropolitan hospitals declined over the last 12 months, although performance remained just above target (80.6% in June 2008). Children have the best access, older people the poorest. EAP for older people improved the most although it remained under target at around 73% at June 2008.	No
Off stretcher time	All hospitals <30 mins for 95% of patients	A steady improvement from mid-2004 until mid-2006 plateaued at about 80% and then declined. In June 2008 performance stood at 77% statewide (on trend line) up from 74% in June 2007.	No
Triage 2	80% < 10 min	Steady improvement in performance from mid-2004. Achieved target in Feb 2006 and peaked at 90% in January 2007. It has declined slowly ever since and fell below the target of 80% in early 2008. In June 2008 it was 78% (trend).	No
Triage 3	75% < 30 min	Continuous improvement totalling 26% (trend) from mid-2005 until Jan/Feb 2007 when it peaked at 73%. It was 70% or below for the whole of 2007/08. While metropolitan and non-metropolitan hospitals were performing the same at around 71% in 2006/07, metropolitan performance finished the series 4% worse than non-metropolitan.	No
Triage 4	70% < 1 hr	Continuous improvement totalling 16% (trend) from mid-2005 until Jan/Feb 2007 when it peaked at 75%, a figure it repeated in June 2008. Remained above target from April 2006. The most improvement occurred in principal referral hospitals.	Yes
Triage 5	70% < 2 hours	Performance remains above target for whole period and is now around 90% statewide, up from 88% in June 2007.	Yes

All hospitals, hospital peer groups and area health services tended to move towards the target even if, in the case of non-metropolitan hospitals, this was actually a decline in performance. The net effect of this clustering around the targets was reduced performance variability and greater equity in the health system. The major issue of inequity is in differences by age group - children have the best access and older people the poorest. This did not change over the life of the CSRP.

There were significant increases in ED demand over the course of the CSRP and some area health services coped with this better than others. The notable performer was Hunter New England AHS. The ED performance indicator with the worst performance was off stretcher times, which did not come close to target throughout the CSRP, with South East Sydney / Illawarra and Sydney South West having the lowest level of performance.

The general pattern over the three years – early improvement (in some cases rapid improvement), followed by a 'levelling off' or slight decline in performance for the remainder of the program - raises serious questions about the legacy of the CSRP and the sustainability of the results achieved.

Elective surgery performance

Key finding
Surgery has been a real success story.

Surgery has been the real success story and this is illustrated in Figure 2. Two performance indicators were adopted for surgery and they are defined below.

Figure 2 The number of patients waiting for elective surgery

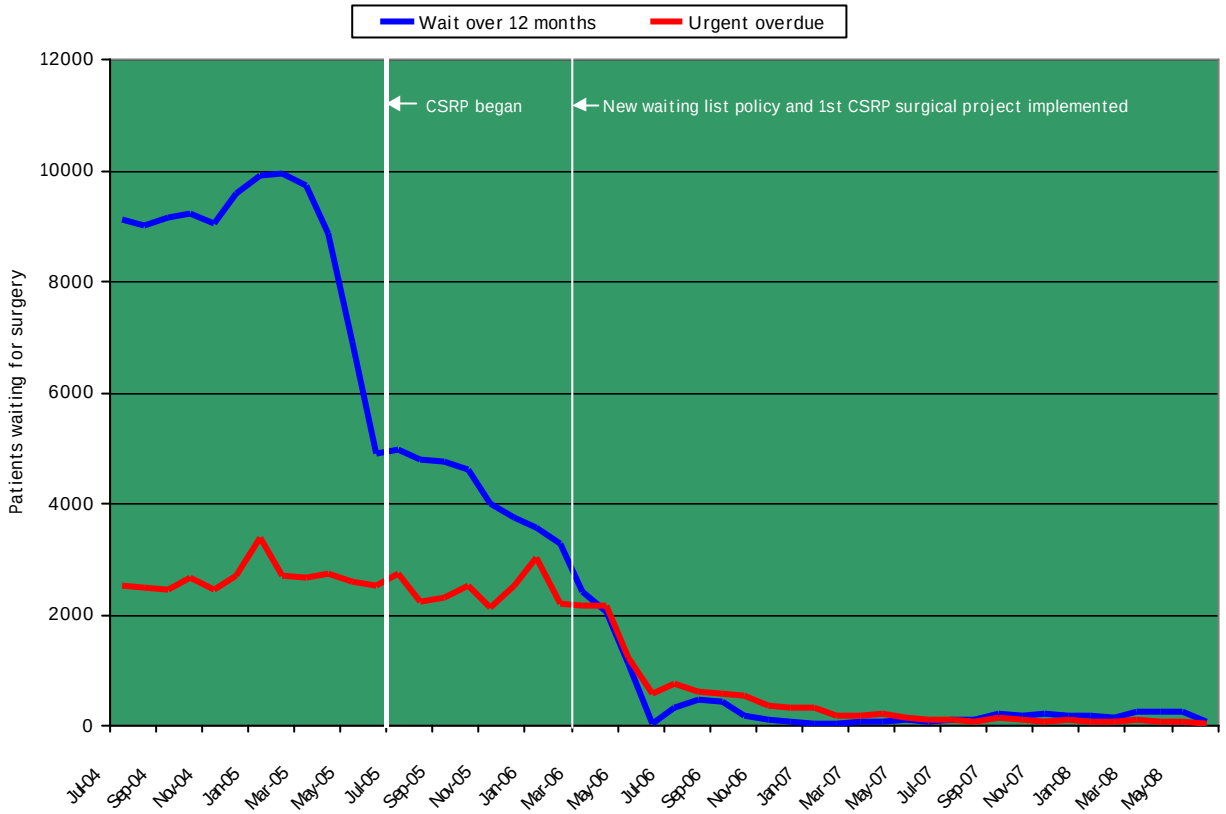


Table 2 Key performance indicators for elective surgery as at June 2008

Indicator	CSRP target (by June 2008)	Performance at end June 2008	CSRP target met at June 2008
Long waits over 12 months	90% reduction	Virtually eliminated by the end of June 2006 and stood at 79 in June 2008 (down from 4,977 when CSRP began).	Yes
Urgent cases more than 30 days	No more than 10% over 30 days	Continued to decrease over the last 12 months and was down to 33 cases by end of June 2008, down from 117 one year ago.	Yes

A new surgical waiting list policy was introduced in March 2006 that standardised the way that patients are prioritised on the list and there have been significant improvements in the management of waiting lists. The fact that the number of long waits was maintained at close to zero for two years (July 2006 to June 2008) is a major achievement.

Rather than relying on process improvements at individual hospitals, the redesign focus has been on managing existing processes more efficiently, improving measurement and accountability for performance and using policy to support practice. Key stakeholders interviewed during the evaluation believe that the improved performance in surgery will be easier to maintain than improvements in other clinical areas. Overall, there is a perception that elective surgery is more controlled than it used to be.

The similar pattern of improved performance for elective surgery, for both long waits and urgent surgery, across different groups of hospitals and by all area health services supports this conclusion. The fact that improvements have been maintained, irrespective of the presence or otherwise of a CSRP project, reflects the influence of systemic rather than local factors.

Key finding

In the first two years of the CSRP, performance improved (in some cases significantly) in both ED and elective surgery and peaked in 2006/07. In 2007/08, performance in these two areas was either maintained or showed a marginal decline.

There is one note of caution in relation to future elective surgery performance. There has been a steady build-up of demand over the period, with the number of people on the waiting list increasing by 8% from the end of 2006 to mid-2008.

The average time that category 3[1] patients (the ones most likely to wait longer than 12 months) wait for their surgery increased by twice that amount (17.4%) over the same period (from 146.1 days to 171.5 days). The number of people waiting 9-12 months for their surgery has also been increasing, slowly but steadily. This is despite the fact that the number of new cases added to the waiting list each month has been relatively static since 2003.

This may reflect a delayed consequence of the wait list policy introduced in March 2006. That policy resulted in a dramatic reduction in cases classified as urgent, making it much easier to meet the targets for urgent surgery. However, the policy increased the proportion of elective surgery classified as category 3, consequently making it more difficult to meet the target for long waits. The fact that for the last 12 months of the CSRP the number of long waits has been close to zero rather than at zero supports this view. Sustaining the improvements in elective surgery, particularly for long waits, may be problematic during 2008/2009 and beyond.

Average length of stay

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.

Indicator	CSRP target (by June 2008)	Performance at end June 2008	CSRP target met at June 2008
Savings in bed days	3% reduction in RSI	1.7% reduction from when CSRP began (July 2005) to March 2008. The RSI at March 2008 was 0.95. The most significant decrease in RSI occurred prior to CSRP (between July 2004 and June 2005) and measured 4.0%.	No

Specifically, the business case (February 2005) proposed that the CSRP would pay for itself by achieving specific bed day reductions through reducing length of stay, with the baseline set as 2003/04. However, the CSRP did not begin until 2005/06 and there was a significant reduction in the length of stay in the intervening year. Using 2004/05 (the year before the CSRP began) as the baseline, there was a reduction in length of stay of 1.7% over the three year period.

[1] Category 3: Admission within 365 days acceptable for a condition which is unlikely to deteriorate quickly and which has little potential to become an emergency

Budget performance

Key finding

The financial performance of the health system declined significantly in recent years and ended 2007/08 in deficit. In September 2008, the government announced that NSW Health was running some $300m over budget.

Most Areas found it impossible to meet both performance and budgetary targets simultaneously.

The rationale underpinning the CSRP Business Case was that reductions in length of stay resulting from the program would create greater capacity within the health system that, rather than being realised as cash savings, would be used to treat additional patients. This would reduce elective surgery waiting lists, reduce occupancy rates in facilities (thereby reducing access block), and provide additional capacity to partly meet the rising demand for health services in NSW, especially from older people. The aim was to meet activity targets and at the same time balance the budget.

Senior managers interviewed during the evaluation typically described the need to meet access KPIs as an additional pressure on their already stretched financial position. In the event, the NSW health system ended 2007/08 about $300 million over budget. It may be that if the CSRP had not taken place this financial position would have been worse. But the fact remains that it has not proved possible, for whatever reasons, to meet both performance and budgetary targets.

How performance in NSW compares with other states

Key finding

There was more improvement in the performance of the NSW health system over the period than occurred in other states that did not have the three pronged improvement strategy implemented in NSW.

As one strategy for understanding the specific impact of the CSRP, we compared the performance of NSW with other states of Australia.

Between 2005/06 and 2006/07 the percentage of emergency patients seen within the recommended triage time improved more in NSW than in other jurisdictions.

There has also been more improvement in NSW since 2004/05 in the timely treatment of elective surgery patients compared to other states (although NSW still has a relatively long waiting time for elective surgery at the 50th and 90th percentiles). NSW has had the biggest reduction in the percentage of patients waiting longer than a year for their surgery, to the point that NSW was the best performing state on this indicator by mid-2007.

For inpatients the picture is slightly different, with NSW not performing as well. Patients are generally admitted to hospital for longer periods of time compared to other states based on data for RSI.

Taken together, the results indicate improvements in ED and elective surgery performance in NSW that have not been matched by the other states. During the period, all states were undertaking a range of activities to improve performance as part of the normal course of doing business but none had a coordinated reform strategy (of which CSRP was a part) with the same level of resources as NSW. If the performance of the other states can be used as the benchmark, the conclusion is that, in the absence of the reform strategy, ED and elective surgery performance in NSW would not have improved to the extent that it did.

Efficiency, quality and safety

Key finding

The CSRP largely focused on efficiency. More attention to quality, safety and patient experiences would have led to more effective clinical engagement.

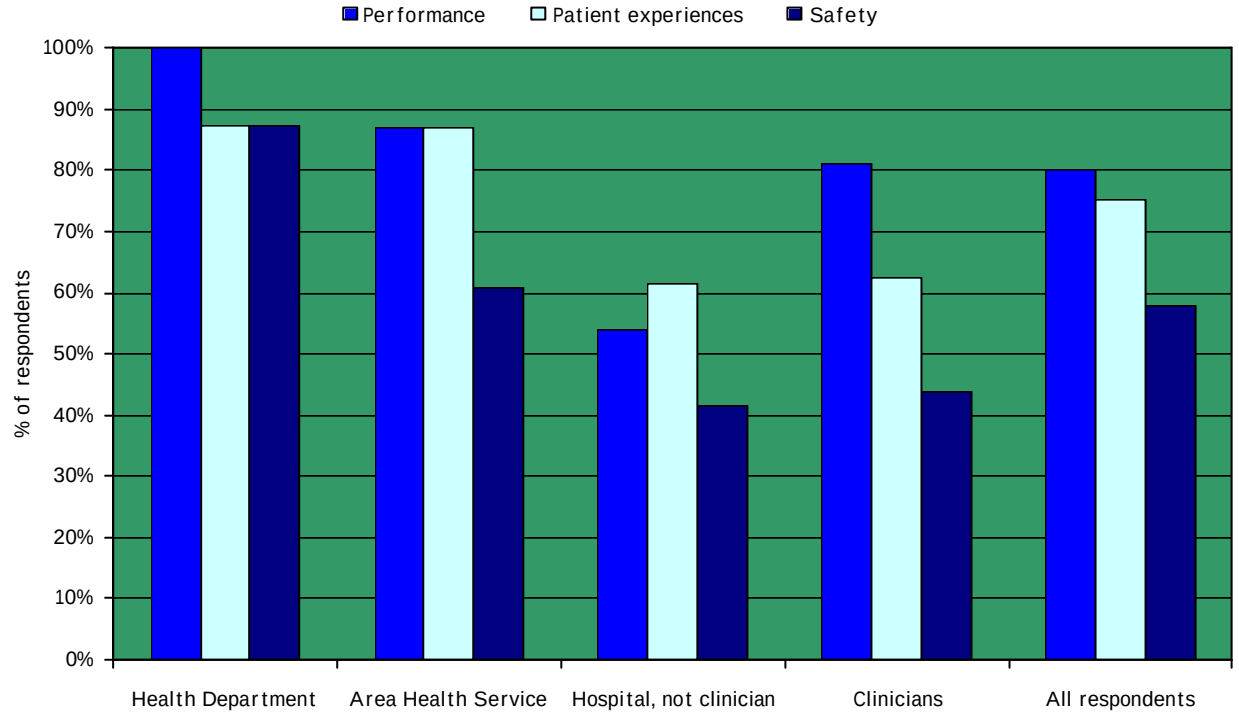
The KPIs used in the CSRP were framed in terms of performance (access to services and efficiency), rather than quality and safety and a key evaluation question has been whether there should be a better balance between performance, quality and safety. A health system has not 'improved' when performance (efficiency) has improved but not safety or quality. Improvement strategies need to be on all three fronts.

One method used to evaluate this issue was a survey of key managers and clinicians, the details of which are included in our third annual report. The survey asked three counterfactual questions - if there had been no CSRP would the performance, safety and patient experiences of the NSW health system be better or worse than it is now?

In total, 80% of respondents thought that performance would be worse if there had been no CSRP, with 75% also believing that patient experiences would be worse. In contrast, only 58% believed that the system would be less safe. Health Department respondents gave the most optimistic responses, with the most pessimistic view held by hospital (non-clinician) managers.

Our overall conclusion is that the focus of the CSRP has been largely on efficiency. This is, we believe, one of the reasons for the low level of engagement by clinicians, an issue we return to later.

Figure 3 Percentage of key stakeholders who think that the performance, safety and patient experiences of the NSW health system would be worse if there had been no CSRP



The impact of growth funding on performance

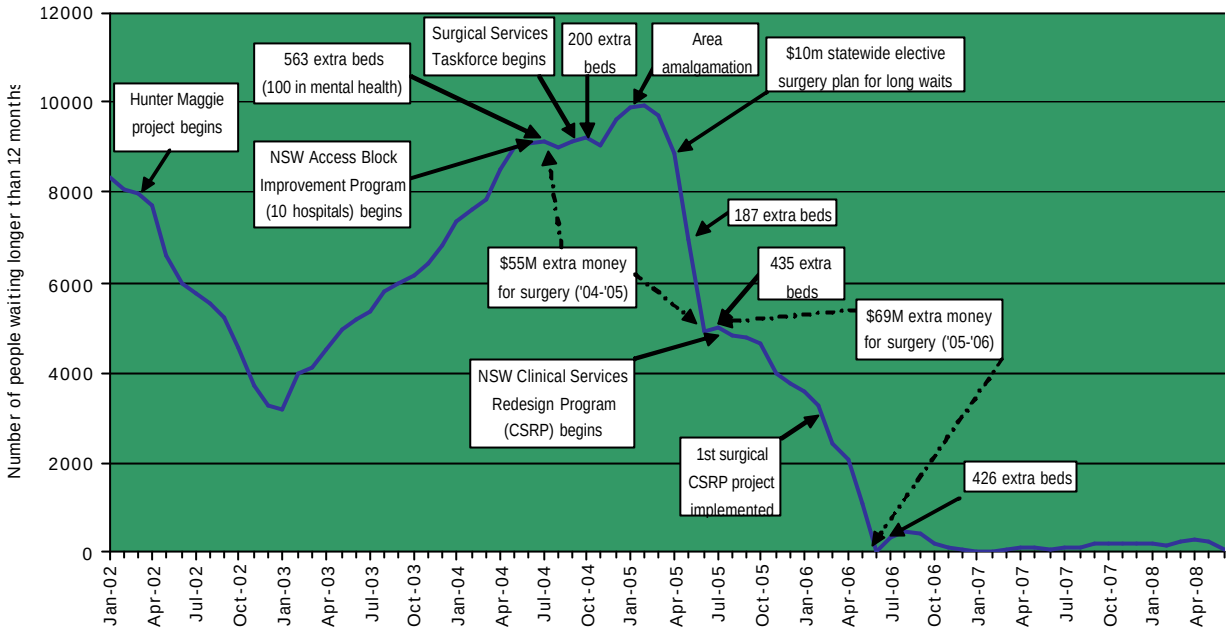
The CSRP was one of three strategies to improve the performance of the health system and, as shown in Figure 4, significant additional funding was invested both to open more hospital beds and to target elective surgery.

Key finding
Growth funding was a necessary prerequisite to improving the performance of the NSW health system.

The influence of this growth funding can be clearly seen in Figure 4 in relation to the number of patients waiting more than a year for surgery. The big decline in the waiting list pre-dated both the CSRP in general and CSRP surgical projects in particular.

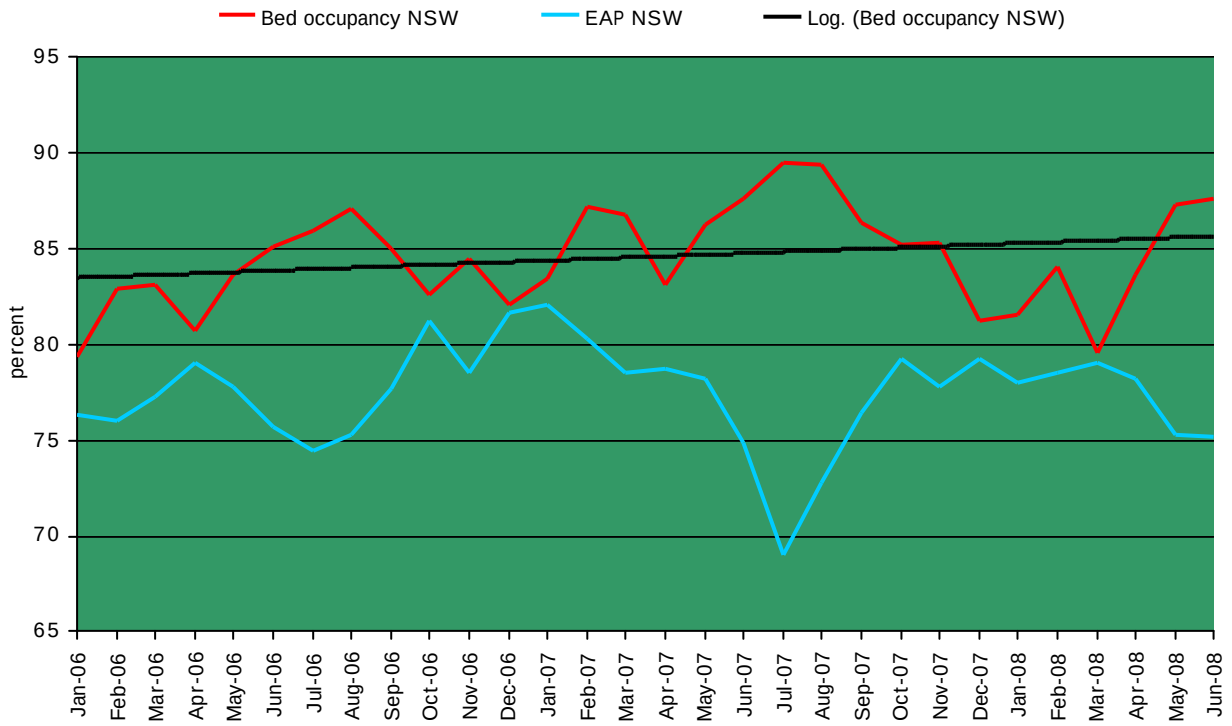
While the additional beds alone would not have automatically led to improved efficiency, there is no doubt that the additional resources were an essential contributor to improved performance, not only in surgery but also in ED.

Figure 4 Number of people on surgery waiting list for over 12 months - NSW



This is further illustrated by Figure 5, which shows the relationship between bed availability and Emergency Admission Performance (EAP) from January 2006. Each peak in bed occupancy is accompanied by a decline in EAP. While bed occupancy varies by month and there is a seasonal (winter) factor, the concerning issue in terms of the future is the small but gradual increase in bed occupancy over the series (shown in the graph by the logarithmic trend line).

Figure 5 The relationship between bed occupancy and EAP



The impact of performance management

Performance management has been a key feature of the reform strategy. In general, key stakeholders interviewed as part of the evaluation supported the increased focus on targets and performance. Their concerns were not about performance management *per se* but the narrowness of the indicators that were used to judge performance and how these were applied. A further concern is that a performance management mentality can sometimes have a detrimental effect on the longer term sustainability of a service improvement process.

Key finding

Better performance management has contributed to improving the performance of the NSW health system.

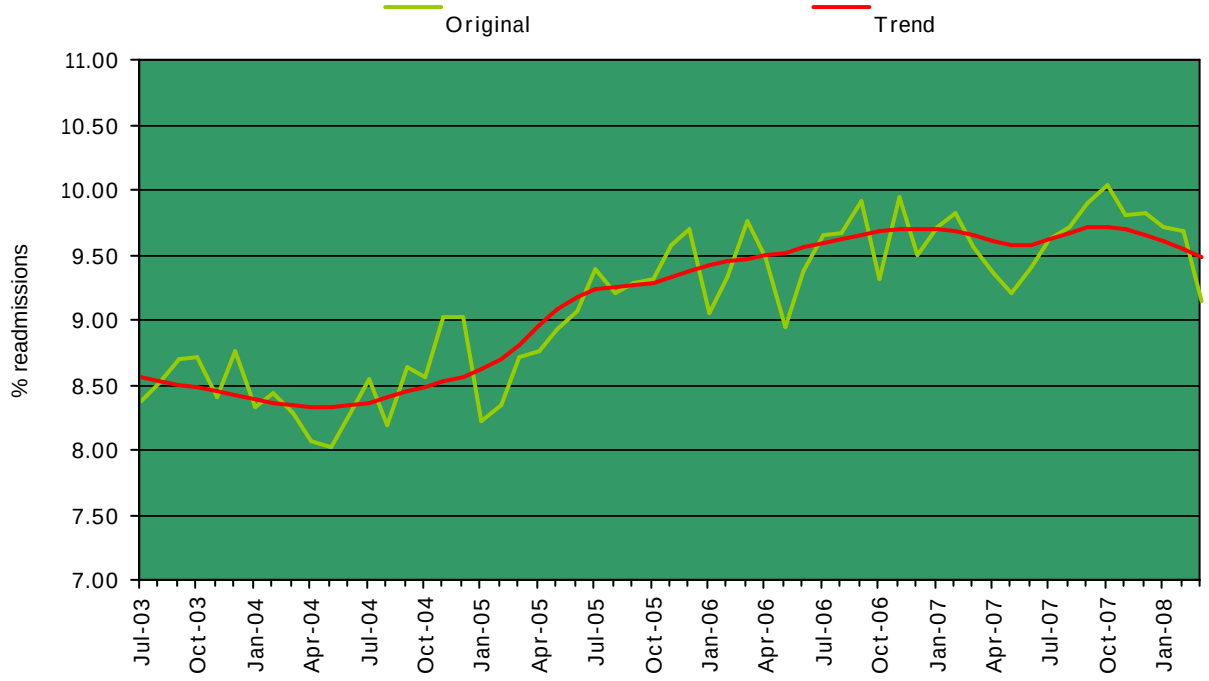
But, on the down side, it has resulted in 'tunnel vision'. There is a need for ongoing efforts to improve the sophistication and credibility of the performance management system.

There has been concern (at all levels) that there has been too much emphasis on certain areas, particularly EDs, and that this has resulted in some distortion (tunnel vision) i.e. focusing attention on areas of performance that are measured, to the exclusion of other important areas that are unmeasured.

Readmissions are a good example of a critical performance measure that has not been systematically measured and managed to date. The readmission rate[2] for emergency patients increased by around 20% during the last three years (see Figure 6). At March 2008, the 28 day readmission rate for children was 7% while the rate for adults was 10%.

We are not suggesting that the increase in readmissions was due to CSRP. Readmissions have been included here simply to illustrate the point about 'tunnel vision' or focusing attention on areas of performance that are measured, to the exclusion of other important areas that are unmeasured. There is a need for ongoing efforts to improve the sophistication and credibility of the performance management system.

Figure 6 Readmission rate - NSW



[2] 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.

Aged care

In the first phase of CSRP, the focus was on ED and surgery. In the latter phase, a series of CSRP aged care projects became the focus with three main (and different) agendas being addressed in various ways in each project:

Key finding
Redesign projects need a clear focus, manageable scope, local leadership and the opportunity to develop local solutions.

- The 'journey' of older people through the health system, which necessitates the involvement of many people working outside aged care specific services.
- The management of older people within specialist aged care services, resulting in a focus on including those working in aged care e.g. geriatricians.
- Chronic care, much (but not all) of which is concerned with the elderly.

Overall, these projects were less successful than those previously undertaken in narrower clinical areas such as emergency departments. This finding is similar to the findings of the evaluation of the 'Maggie' project in the Hunter – the CSRP methodology works best when the project scope is limited to a single department or a single problem.

Issues of scope, scale and complexity impacted negatively on most projects as illustrated by comments by project participants:

> *If you're going to have a project have a project, give it some boundaries, let it be focussed as I understand that it should be focussed, worked through to agreed outcomes. Don't try and solve everything everywhere for all time. Be realistic in expectations of the resources that are available to support the changes that the project is going to create. I just think we were too diffuse and we warned them not to be.*

> *But it (the aged care project) was too big, I think. That was the way it felt to me, throughout it, that it was just trying to solve all the problems of aged care … but the scope was just so big that it covered a lot of things.*

A further issue was that many participating clinicians perceived that 'solutions' for the aged care projects were driven centrally in the Health Department based on a 'one size fits all' approach. This was the antithesis of what the program originally set out to do.

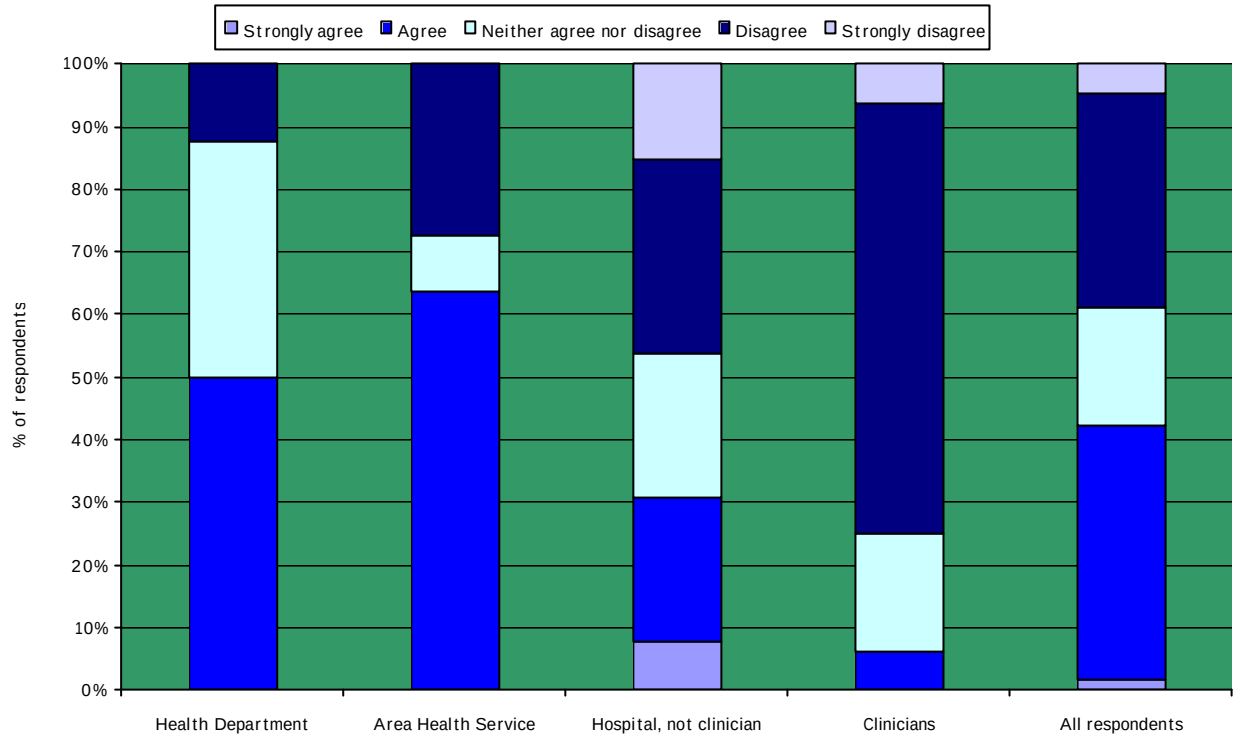
There were also concerns about implementation or the lack of it. In fact, it was difficult in the final stage of the evaluation to identify what had been implemented and what had not. We discuss this issue in the next section.

Implementation of CSRP project solutions

Concerns about lack of implementation were raised above in the context of the aged care projects. But the issue of implementation has not been limited to aged care. We expressed concern in all three annual reports about the 'disconnect' in some projects between the initial up front visible component (diagnosis and solution design) and the much more difficult, but much less visible, work of implementation.

Key finding
The contribution of CSRP projects to improving efficiency, quality and safety has been less than it might have been because many 'solutions' have never been fully implemented.

Figure 7 The solutions arising from clinical redesign projects have been well implemented



As Figure 7 demonstrates, we are not alone in having concerns about implementation. This figure reports on the views of key managers and clinicians surveyed in 2008. Less than half those surveyed agreed that 'the solutions arising from clinical redesign projects have been well implemented'. While nearly two thirds of those working in an area position agreed with this statement, only 6% of clinicians and 30% of hospital managers did so.

Transformational or incremental change?

The vision for CSRP was one of achieving transformational change. But most of the solutions implemented were a mix of quite standard interventions with the emphasis on smaller-scale, incremental change. This finding is consistent with the Maggie evaluation undertaken by Hunter New England Area Health Service.

Key finding

The changes achieved by the CSRP were incremental rather than transformational. The original goals were overly ambitious. Transformational change requires more than a single program.

In 2006/2007 only 34% of project-level KPIs met target, with slightly more (46%) showing improvement compared to initial or benchmark data. One year later (June 2008) half the KPIs had stayed the same or improved further but half had not, with an average of 39% of KPIs meeting target for 2007/2008. There is clearly plenty of room to improve project-level performance.

During the 3 years of the CSRP there has been no shared vision about the fundamental nature of the change required. Some people have argued for transformation change (and at the end of the program believed that transformation had been achieved). But the more general view was that transformation was either not a useful ambition or something that could not be achieved by a single program, even one as well-resourced as the CSRP. This is not unusual given the common feature of improvement programs worldwide - outcomes tend not to match ambitions.

That said, 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. This is reflected in the following comment by a person working in the department:

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.

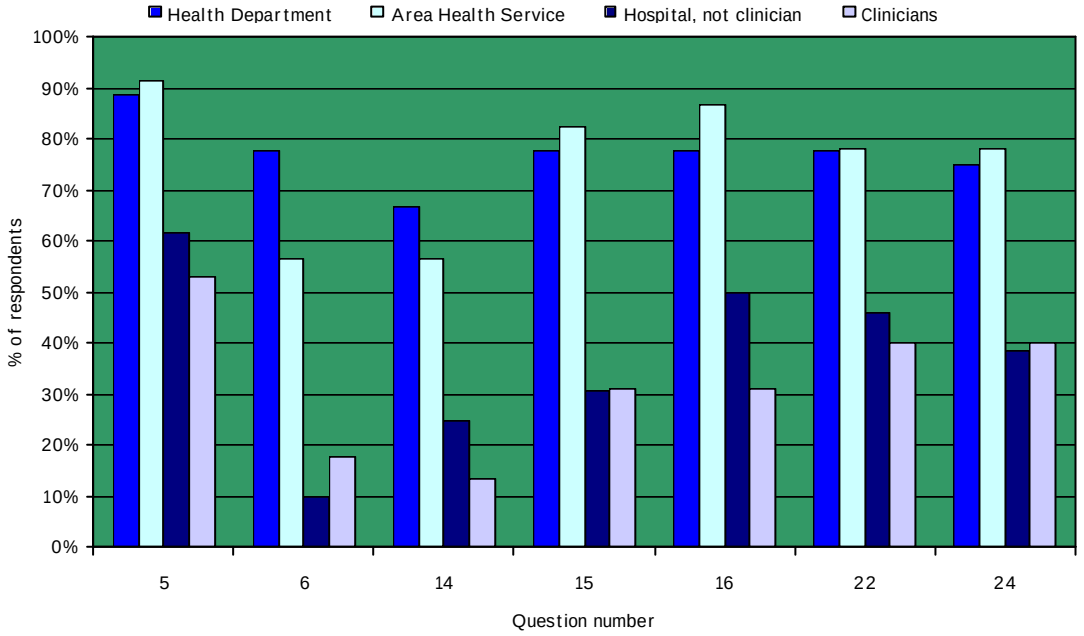
These changes in observed patterns of behaviour may influence deeper levels of culture if they become embedded and part of daily routine. However, it was overly ambitious to think that CSRP could deliver the desired deeper cultural changes in the values and assumptions underpinning the NSW health system.

Voltage drop

Key finding
The closer to the centre, the more positive are the perceptions about the achievements of the CSRP.

Staff working in the Health Department and the Areas have the most optimistic view about the achievements of the CSRP over the last three years. Those working on the 'frontline' in hospitals are much less positive. We have termed this phenomenon 'voltage drop' and it is illustrated in Figure 8, which summarises responses to a range of year 3 survey questions.

Figure 8 Percentage of respondents agreeing with each statement



Number	Question
5	The CSRP was a worthwhile use of staff time and resources.
6	The CSRP was worth the amount of money it cost ($70 million over three years).
14	The changes resulting from the CSRP will be sustained in the longer term
15	The CSRP achieved significant benefits
16	I have gained new skills and capabilities from the CSRP
22	The NSW Health system now has a greater capacity for implementing changes to clinical services compared to three years ago
24	The NSW Health system is now better at sharing ideas and information about new ways of working than it was three years ago

The congruence of Health Department and area health service perceptions is notable. Most, but not all, Health Department respondents had a significant exposure to CSRP through their work in the Health Services Performance Improvement Branch.

Likewise, many of those working at the Area level also had significant exposure, either from their work in one of the Area clinical redesign units, or from their role as a project sponsor or as a manager responsible for a clinical redesign unit. The 'voltage drop' from this group to those with day-to-day responsibility for services (both clinicians and non-clinicians) is one of the most pronounced findings from the evaluation.

Impact on staff

Key finding
CSRP staff gained new skills and knowledge and appreciated the opportunity to make a difference.

Overall, those who participated in both the CSR program and CSR projects enjoyed the experience, gained new skills and felt that they were able to make a real contribution to improving the system. This was particularly the case in the early years when, for many, there was a real sense of an opportunity to do things differently.

At the departmental level, the responsible branch had a sense of energy and drive that was appreciated by many staff working in it. At the area level, those working in most CSR units felt that they had an opportunity to make a difference and to be exposed to a range of services within the area. At the project level, staff working on CSRP projects were back-filled and this was important in freeing up key people to concentrate on redesign.

Key finding
Many managers and clinicians have felt under enormous pressure, with many feeling that it is unsustainable.

At the same time, the imperative to maintain and improve performance resulted in enormous pressure being placed on those delivering services. We commented in our second report that, while some of this pressure was legitimate and 'part and parcel' of what staff would expect, much of it was seen as intolerable and unsustainable. Nothing happened in year 3 to change that view.

That pressure has not been restricted to those on the front line. Many senior and middle managers have been working at a pace and in a way that is simply not sustainable. Undoubtedly, redesign and performance improvement has been hard work. Many people we interviewed during the last two years spontaneously commented that they felt 'jaded' and close to exhaustion and at least some people in the Health Department recognised 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.*

We have not been alone in expressing concerns about what has been described to us over the three years as an endemic culture of bullying. Numerous informants to the 2008 Special Commission of Inquiry into Acute Care Services in NSW Public Hospitals have raised the same issues in their submissions and verbal evidence. We are not suggesting that CSRP per se is responsible for this. But the fact remains that there needs to be a very clear line between performance management and bullying across the whole health system, including in redesign efforts.

Consumer participation and the patient journey

Key finding
While some progress has been made, the real potential of involving consumers in redesign and in building the system around the 'patient journey' is yet to be realised.

The concept of the 'patient journey' was central to the design of the CSRP and has become embedded in the language of the NSW health system. Transformational change would be achieved by redesigning care around specific patient journeys such as elderly patients admitted through emergency departments, patients requiring elective procedures and patients with chronic disease.

Equally, the program envisaged that consumers would participate in redesign. This occurred in many projects with consumers attending various committees, working groups, focus groups and planning workshops and the views of patients on their experiences were sought by some projects as part of the diagnostic phase. The department also commissioned surveys of patient experiences.

Based on our reviews of the projects and interviews with stakeholders over the last three years, the general view is that hearing about patient experiences is beneficial. However, the information collected had little impact on project design, project direction or the development of solutions:

> *I thought it was a worthwhile process, actually. It was quite interesting and it sort of opened my eyes to the process from their point of view. I had a mixture of people that were sort of praising everything and a mixture of people that were complaining about everything, as you usually do. I think that was beneficial but it wasn't used so much in developing the solutions.*

With a few notable exceptions, projects were not evaluated by interviewing patients to find out whether their 'journey' had improved. Yet this remains one of the ultimate tests of the outcomes of the CSRP.

At the system level, learning about patient experiences has now become a requirement of each area chief executive and has been built into their performance agreements. After three years, the real potential of involving consumers in redesign and in building the system around the 'patient journey' is yet to be realised but the chief executive performance agreements provide a structural mechanism to take this forward in the future.

Program design

Role of the Health Department

In our first report we raised the question as to whether there was a need for the Health Department to play more of a 'help it happen' rather than 'make it happen' role. In the ensuing two years such a change did not eventuate, with our data collection simply reinforcing that the 'make it happen' approach was dominant.

Key finding
The ongoing challenge for the Department is to find the right balance between 'helping it happen' and 'making it happen'.

The amalgamation of Areas and abolition of area health boards resulted in much clearer lines of accountability between Areas and the Health Department which provided the framework for this 'top down' approach to occur. Key stakeholders we interviewed across the three years of the evaluation saw the CSRP as centrally driven and part of a broader move by the Health Department to micro-manage the health system.

In our first evaluation report we observed that links between CSRP and other parts of the health system were variable - links with performance units were strong, links with other organisational components such as quality departments and learning and development units were less strong. Nothing happened in the intervening two years to change our view on this issue, perhaps best illustrated by the absence of any involvement of area-based learning and development units in the design and delivery of the clinical redesign school that was established in the final phase of the program.

The Health Department is seen by those outside it as more directive and interventionist than in the past. 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 Areas. One of the four divisions within the department was responsible for leading and implementing the three components of the department's reform strategy – CSRP, performance management and

additional resources. Senior managers, both within and outside the Health Department, saw the need for a more unified approach to the reform strategy across the whole Department.

The role of external partners

The external partners have been a key feature of the CSRP. In general, those who worked closely with external partners enjoyed the experience, learned a lot and valued the different perspective they brought. Interviewees referred to their level of rigor, project management skills and critical thinking skills. Their ability to provide an independent point of view and to act as an advocate or a catalyst for change was appreciated by many participants.

Key finding
The external partners made a contribution to improving performance over the last 3 years. However, there are concerns about whether they represented value for money and focused too much on completing a project rather than achieving improvements

Concerns primarily related to whether the external partners represented 'value for money', doubts about who they were working for (the local project, the area health service, the Health Department), that they were sometimes too concerned with 'getting the job done' rather than achieving improvements and what their 'agenda' was.

The centrality of external consultants to the CSRP may have contributed unwittingly to improvement outcomes that have been more incremental than transformational in their impact. There is a growing body of empirical research to suggest (or rather confirm) that consultants are not particularly innovative or leading edge in their ideas. Rather, they 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). Some of those we interviewed referred to external partners who 'came with their own bag of tricks' or tried to steer project management groups towards particular solutions. 'Large scale' transformational outcomes cannot be expected with relatively conventional and routine 'transactional' service redesign methods.

Project selection

The results achieved by any program such as the CSRP are dependent, at least in part, on the projects undertaken. Our findings suggest two important issues that have emerged over the course of the program – which projects best 'fit' the methodology and which projects are more likely to succeed.

Key finding
The issues that projects such as the aged care projects aimed to address were so-called "wicked problems" in that they were wide, diffuse and complex. Wicked problems are not successfully addressed with traditional linear, analytical approaches. The CSRP project methodology worked well for so-called 'tame' problems. Tame problems are not necessarily simple—they can be very technically complex—but the problem can be tightly defined and a solution fairly readily identified or worked through.

Overall, the more narrowly defined projects such as those in ED and elective surgery fit better with the CSRP methodology than those that tackle more diffuse clinical areas (e.g. aged care) and/or seek to make changes across whole area health services.

In fact, many of the aged care projects had long timetables which, together with the nature of the changes being attempted, fit better in our view within a clinical services planning framework. Two area health services commented that their aged care CSRP project started soon after they had undertaken the development of a clinical services plan and that there was considerable overlap (and sometimes conflict) between the two.

Our evaluation framework was framed in terms of a set of evidence-based key success factors that provide a helpful framework to guide the selection of future projects. Issues such as leadership, the ability to engage clinicians and a receptive context are factors that have proved critical in the success or otherwise of CSRP. If the judgement is that some of these factors are not

in place, it is probably better to address these factors first, before undertaking a project. Otherwise, the likelihood is that an unsuccessful project will result.

Methodology

Key finding
Future performance improvement efforts should have three clear phases:
Phase 1 - diagnosis, solution design and implementation planning
Phase 2 – implementation.
Phase 3 – evaluation

The CSRP was envisaged as a fairly radical approach with many of the features of business process re-engineering, rather than the more familiar approach (at least within the health system) 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.

As it evolved, CSRP took more of a 'middle path' between the re-engineering approach and TQM. The key elements were a focus on process; the availability of timely, accurate, data; working in teams; using the concept of a patient journey; taking a patient perspective; utilising the expertise of external partners; and rigorous project management, at least in the initial phases.

This approach was underpinned by a significant commitment of resources and a strong 'top down' approach to program management. As the program unfolded a greater level of sophistication emerged:

- The aged care projects undertaken in the second half of the program took place over a much longer time frame than the earlier ED and elective surgery projects, with a greater focus on integrating services, improving continuity of care and improving cooperation with external providers.
- Program measurement was initially focused heavily on a small number of measures but then expanded to include more performance indicators.
- Continuing work on patient experiences.

We believe the most useful way to conceptualise performance improvement methodologies in future is with three phases, albeit slightly different phases to those in the original CSRP business case:

- **Phase 1** - **diagnosis, solution design and implementation planning**. This phase is visible, time-limited, well resourced and subject to strict project management. Many of the people we spoke to over the course of the evaluation, when describing a 'project', stop at this point.
- **Phase 2 – implementation**. This phase has been largely invisible, open-ended, not so well resourced and sometimes 'lost' in the day-to-day business of health care.
- **Phase 3 – evaluation**. This phase only occurred in the CSRP in a patchy, rather ad-hoc, way, the evaluation of the Maggie Program being the notable exception.

Leadership

Key finding
Leadership at all levels is critical to the long term success and sustainability of redesign initiatives.

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. Future programs need greater clarity about who is leading the program, how the different levels of leadership relate and how the program should be led – the appropriate

leadership style and role model for others to follow. Leadership styles during the CSRP varied from the autocratic to the democratic to the laissez-faire and this may account at least in part for some of the variation in process and results we found.

Leadership at the clinical level is equally essential and this occurred in only a limited number of projects. When it did, it had the capacity to drive powerful change as illustrated by the following comment from an area manager:

> *(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.*

Knowledge management and the role of evidence

One of the issues that emerged during the evaluation was the role of evidence. While there was much talk of 'learnings' by those working in the program, project 'solutions' were largely based on consensus rather than evidence and there was no systematic investment in project-level evaluation.

Key finding

The challenge remains for the NSW health system to becoming a 'learning organisation' that makes decisions using the best available evidence.

As one AHS manager commented, 'R&D is not built into our thinking processes'. Senior managers in the Health Department recognised that there was a focus on 'good news stories'. In part, this arose because opinion was favoured over evidence as reflected in a comment from a senior Health Department manager:

> *You get something like, somewhere did this … that this place has dreamt up and done this thing and it's worked really well for them, so let's plonk that everywhere else. And they haven't really got a real in-depth understanding of why it worked in that place, and what were the key factors for success.*

The ARCHI (Australian Resource Centre for Healthcare Innovations) website was used throughout CSRP as a repository for the many reports produced by projects and by the end of the program there were 145 CSRP project documents on it. For most projects the final report is either an 'implementation planning' report or a 'final' report on the project but not its implementation or outcomes.

The intention at the beginning was that a project-level evaluation would be undertaken for each CSRP project, in line with guidelines developed by the Department. These guidelines were largely ignored. Sydney South West undertook some project-level evaluations and Hunter New England has also completed their extensive evaluation of the Maggie Program. None of this work is available on ARCHI and there has been no systematic approach to ensure widespread dissemination of the findings from the Maggie evaluation. As a further example, one project managed under the auspice of CSRP (the NSW SAFTE project) is on the website except for the report of the independent evaluation that found significant problems with the model.

In the early stages of the CSRP a 'NSW Health Knowledge Framework Project' was undertaken which in our view provided an excellent basis for taking initiatives for shared learning and knowledge forward in the right direction based on the Australian Knowledge Management Standard. However, the approach to knowledge management relied heavily on the development of ARCHI with an emphasis 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.

Progress in implementing the knowledge management framework was hindered by staff changes and it transpired that only two area health services appointed knowledge managers. No formal knowledge management strategy has been evident throughout the program, although the Health Department has undertaken extensive work in organising workshops, master classes, establishing a central redesign school and other initiatives.

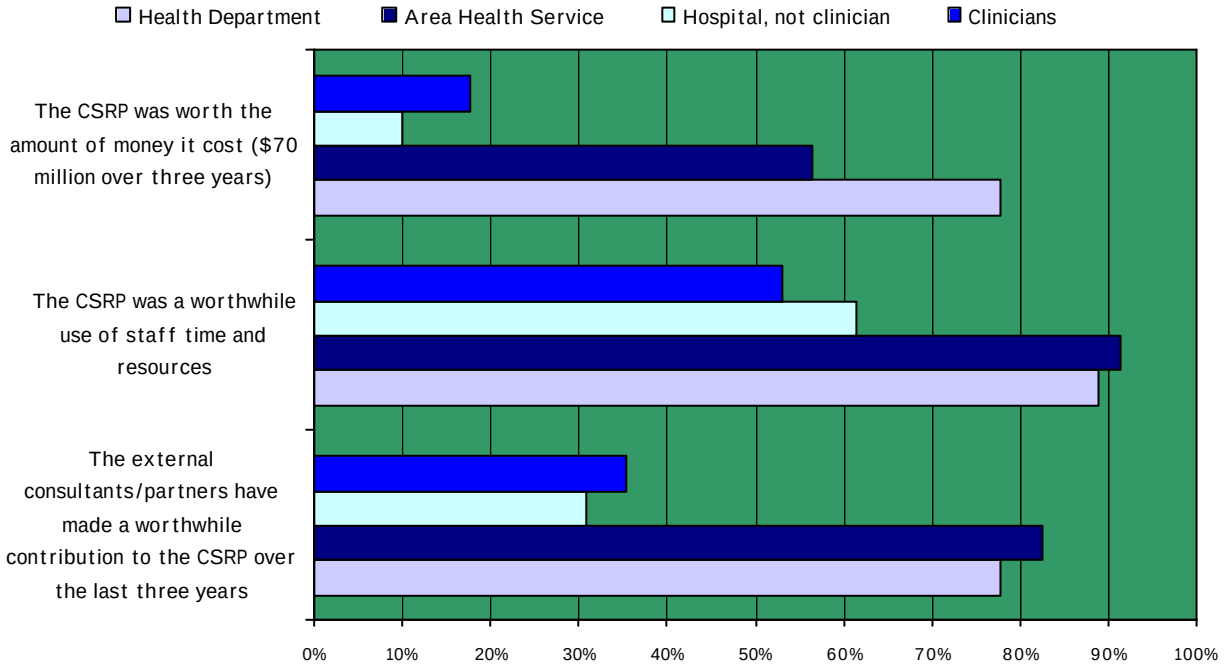
We noted in year two that the notion of the NSW health system becoming a 'learning organisation' needed much more explicit attention. At the end of year three, we have not changed our view on this.

Was it worth it?

As the results summarised above illustrate, there have been some significant achievements in the three years of the CSRP. There have also been some valuable lessons. A key question for the Health Department in considering the future is 'was it worth it?' and, as a corollary, 'is it worth doing again?'

Figure 9 summarises the views of key stakeholders in relation to three aspects of 'was it worth it?' As can be seen from the results, those working in hospitals were generally much less positive about all three. That said, more than 50% of clinicians (the least positive group) believe that the CSRP was a worthwhile use of staff time and resources.

Figure 9 Percentage of respondents agreeing about the 'worth' of aspects of the CSRP



Our survey of key stakeholders included 15 statements that sought a ranking on a five-point scale from strongly disagree to strongly agree. Table 3 ranks these statements according to the percentage of all respondents who either agreed or strongly agreed with each statement.

The ranking is illuminating. Although there is a need for caution given the relatively small size of the survey, the results in this table are in agreement with all our other findings throughout the three years of the evaluation.

Table 3 Key stakeholder perspectives about the CSRP

Statement	% in agreement
The CSRP was a worthwhile use of staff time and resources.	76.1
The CSRP has resulted in system-wide improvement of patient care in elective surgery.	74.6
The CSRP has resulted in system-wide improvement of patient care in emergency departments.	73.8
I have gained new skills and capabilities from the CSRP.	64.6
The external consultants/partners have made a worthwhile contribution to the CSRP over the last three years.	61.2
The CSRP achieved significant benefits.	60.6
I now feel more empowered to do service redesign as a result of the CSRP.	59.1
The 'patient journey' approach adopted by the CSRP has improved teamwork between different departments within health services.	58.5
The CSRP has resulted in system-wide improvement of patient care in aged care.	57.9
The 'patient journey' approach adopted by the CSRP has improved teamwork between different groups of health professionals e.g. between doctors and nurses, between surgeons and physicians.	54.7
The solutions arising from clinical redesign projects have been well implemented.	42.2
The changes resulting from the CSRP will be sustained in the longer term.	42.2
The CSRP was worth the amount of money it cost ($70 million over three years).	41.9
Chief executives have been a driving force behind the CSRP over the last three years.	33.3
Doctors have played a leading role in the CSRP over the last three years.	30.3

The rankings fall into three bands, as indicated in the table, with elective surgery and emergency departments well suited to the CSRP methodology and reflecting the generally positive response from those involved in the program. Likewise, the lowest ranked statements reflect areas of great concern: poor implementation of solutions, doubts about sustainability, lack of leadership from chief executives and lack of engagement of doctors. We concur with these findings.

We commented in our second report that a circuit breaker was required to create a sustainable framework for 'redesign principles' so that they become widespread across the NSW health system. The strategy proposed by NSW Health had nine streams of aligned activity designed to pass ongoing responsibility from the Health Department to each area from May 2008 onwards. One year on, there is little evidence to suggest that this strategy has been implemented, with the exception of creating a central clinical redesign school and developing an E-learning platform. Our conclusion is that, without ongoing leadership and resources, the achievements of the CSRP are not sustainable.

Yet the need to keep improving the system remains as strong as ever. What is needed for the future is a tool kit of methods (which includes the CSRP methodology, clinical services planning, collaboratives and so on). The CSRP methodology works well when used in the right situation. But it is not the only way to achieve improvements in efficiency, quality and safety. The second requirement is thus critical – the organisational ability to select the right tool for the job.

However, agreeing on where to go from here is not just about the range of tools. It is now timely for the Health Department to undertake its own in-depth review of the change model underpinning the approach to service redesign (including the assumptions, theories, concepts and methods driving it) to ask whether it is fit for the purpose of sustained continuous improvement within NSW Health.

While large-scale change is about planning and performance, about tools, targets, methods and measures – all defining qualities of the CSRP as revealed by our evaluation - it is also about engaging, mobilising and energising, about connecting with local aspirations and agendas. It is about 'helping it happen' and not always trying to 'make it happen'.

Despite the fact that the performance of both emergency departments and elective surgery has clearly improved over the three years of the CSRP, there is a strong public and staff perception that the NSW Health system is not delivering what the community needs. This is perplexing for many senior executives and managers who, relying on a narrow range of KPIs, have been unable to convince key hospital staff, opinion makers and patients that the overall performance, quality and safety of the system has improved.

In part, this dissonance is the natural consequence of the current structure of the NSW health system, the top-down approach that has been apparent over the three years and the failure to adequately address more fundamental cultural and leadership issues. While not specific to CSRP, addressing these fundamental issues that are facing the NSW health system as a whole is the key to maintaining the improvements that the CSRP has achieved to date and in driving the next stage of reform.