CORRECTED

REPORT OF PROCEEDINGS BEFORE

GENERAL PURPOSE STANDING COMMITTEE No. 2

INQUIRY INTO QUALITY OF CARE FOR PUBLIC PATIENTS AND VALUE FOR MONEY IN MAJOR NON-METROPOLITAN HOSPITALS THROUGHOUT NEW SOUTH WALES

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At Sydney on Monday 17 September 2001

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The Committee met at 2.30 p.m.

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PRESENT

The Hon Dr B. P. V. Pezzutti (Chair)

The Hon Dr A. Chesterfield-Evans
The Hon R. D. Dyer
The Hon D. F. Moppett
The Hon H. S. Tsang

PAUL KENNETH TRIDGELL, Deputy Chief Information Officer, New South Wales Health, 73 Miller Street, North Sydney, and

MICHAEL ANTHONY REID, Director-General, New South Wales Health, 73 Miller Street, North Sydney, on former oath:

Mr REID: We are concluding the presentation we gave at the last hearing. Dr Tridgell has about half a dozen overheads to finish that presentation, running through more of the interpretation and usage of the data and the quality we are applying. I will then provide a broad summary with two or three overheads to wrap it up.

Dr TRIDGELL: When one is looking at this clinician level data one has to be aware that one often ends up dealing with quite small numbers in a particular sample. This can make it hard to draw a definitive statistical conclusion. This means that the interpretation of the information requires some local interpretation. Also, there are some differences in the extent to which coding is done at different hospitals. For example, at some hospitals you can look at the infection codes which are encoded on the in-patient statistics records while at other hospitals they are coded differently. So, if you are comparing hospital with hospital, unless one is aware of the extent of the coding at the different sites, one could potentially draw false conclusions from the data without some local interpretation.

CHAIR: But for some things, for example, the length of stay or the rate of day-of-admission surgery for a thing called laparoscopic cholecystectomy, is something that you could compare an individual surgeon with any other individual surgeon across the State because it is a relatively homogeneous system?

Dr TRIDGELL: Yes. That is quite robust. So, if I am looking at the length of stay for elective cholecystectomies, if there was an unplanned return to theatre or a readmission, if they had it as an open or laparoscopic procedure, that is very well-known. If it was coded as potential infection or not, it is a bit arbitrary as to how well that is documented in the notes and how consistently that is coded.

CHAIR: Do you mean that if they have coleocystitis when they start and they are operating on an infected gall bladder, for example, that would look different from an infection follow-up point of view?

Dr TRIDGELL: Yes. But we have picked that up if they were an emergency or a booked.

The Hon. RON DYER: Can anything be done about the coding variation, that is, to promote uniformity?

Dr TRIDGELL: Using the information more, which is what we are doing. That is the best thing we can do to improve the quality of the data. As people appreciate, they can use the data in these ways.

Mr REID: The feedback of data to individual clinicians more than any other factor will improve the quality of data because at the end of the day it is their data: it is the hospital's data and individual groups of clinicians' data. So, the feedback to them to say what does this variation mean historically has always drawn the response that the data is wrong. But as it becomes increasingly accurate and timely, as it is now, we are getting close to real live data and good quality data overall.

CHAIR: Traditionally much of the data is done by the medical records librarian and the surgeon looks pretty bad or the results look bad. So they do the data themselves, which has much better and more accurate input data, and therefore better comparisons. We are now towards the end of that process, are we not?

Mr REID: That is correct.

Dr TRIDGELL: One of the big changes we implemented was increasing the day-of-surgery rates and day-only rate. As I proposed in the earlier presentation, one of the key quality indicators that we looked at is the readmission rate. How many of those elective patients when they come into hospital are readmitted to a hospital within 28 days? If this was going up, some could mount an argument that patients were going home too early and quality was declining. But this is showing that the unplanned readmissions within 28 days in 1999-2000 was 3.3 per cent and for 2000-01 has fallen to 2.65 per cent. So, perhaps that is encouraging. The unplanned readmission rate is in fact falling, which is consistent with the trials, the clinical studies of initiatives like day-of-surgery admission with the increased preparation, quality that comes with that process, actually increasing the quality of care that is delivered to patients.

CHAIR: Is that all surgical things together, emergency, elective or only elective?

Dr TRIDGELL: This is looking at all elective patients.

Mr REID: All surgical, all elective.

Dr TRIDGELL: All surgery, all elective because that is where we have done the change.

Mr REID: The converse of this is equally important in that the earlier data resulting from the chronic care program we have rolled out, that $45 million over three years, is also showing a very significant and early reduction in readmission rates of people with chronic conditions.

CHAIR: The money was spent on linkages. I draw the Committee's attention to the fact that the 2000-01 data is real time. This is the first time we have been able to get such data. Professor Gibberd from Newcastle usually waits for the full publication, which usually therefore is a year and a half behind time.

The Hon. RON DYER: There is no artificial impediment to readmission that might distort the figures, is there?

Mr REID: No.

The Hon. Dr ARTHUR CHESTERFIELD-EVANS: They do not go back to the rooms or something if things get dicky?

Mr REID: No. The evidence is that there is a genuine reduction in readmissions on both the surgical and medical sides, which is probably due to better clinical practice in all areas.

Dr TRIDGELL: Out of this part of the process of sharing information is also needing to share and promote best practice. One way we have done this, for example, is from those scatter plots for the top 20 procedures we have identified where is best practice in the State. We have asked for *Clinical Pathways* for those places. *Clinical Pathways* is a document that says what protocols are followed by the clinicians treating that patient. We have brought *Clinical Pathways* in through the department. I left a pile of them up there so that in that way we are sharing that knowledge and expertise across the health system.

The Hon. Dr ARTHUR CHESTERFIELD-EVANS: When you say *Clinical Pathways* do you mean flow diagrams and diagrams of treatment? Is that what you mean by a flow pathway?

Dr TRIDGELL: A clinical pathway like an elective cholecystectomy would say what things are done just before the patient comes in, what things are done on the day of the procedure, what things are done the day after the procedure. So, it is not a flow diagram which determines the diagnosis. For these elective surgical patients the diagnosis has been established. It documents—

The Hon. Dr ARTHUR CHESTERFIELD-EVANS: Events happening during that admission episode?

Mr REID: In the normal treatment of that condition. It does not mandate that sequence, but it provides a very good guide to clinicians of what is considered to be best practice in the treatment of that condition.

CHAIR: But you can also tease out from *Clinical Pathways* the various costs because of certain tests carried out?

Mr REID: That is correct.

CHAIR: It does not identify patient costs, does it? In other words, the cost to the patient of having to visit the hospital three or four times et cetera?

Mr REID: No.

CHAIR: But it does indicate the costs to New South Wales Health, the area health service or that hospital?

Mr REID: Yes, but its aim is not as a cost identification. Its aim is a quality issue around best practice.

CHAIR: Yes, but as we are interested in quality and value for money from the *Clinical Pathways* of two different hospitals or two different surgeons, you can indicate that one surgeon is doing all the same things except he is doing many more tests.

Mr REID: Over a longer length of time.

CHAIR: Exactly, so that there are cost implications with this as well.

Mr REID: That is correct.

Dr TRIDGELL: We have engaged ARCHI. As many people do *Clinical Pathways* and present them in different ways, we want to get a standard framework for presenting this. ARCHI is part of the National Demonstration Hospital Program.

CHAIR: What is ARCHI?

Dr TRIDGELL: ARCHI is a project under the National Demonstration Hospital Program, which is based at Hunter and has the national network. One of the main functions is to publish information that arises out of the National Demonstration Hospital Program. Using their network and then working with us to develop standard *Clinical Pathways* we are able to capture the expertise of New South Wales as well as other States to develop those *Clinical Pathways*. In the earlier presentation I also covered how we are using information to look at timing. There is a lot of timing information that we collect, which we have been using a lot more in recent times. By looking at the timing we can look at issues like cancellations: Do they occur on particular days of the week? Do clinicians discharge patients only on Tuesdays and Thursdays or do they discharge them at any time? In other words, you can screen as to when they do their rounds. You can see how many cataracts get done on a list because nearly everything the ophthalmologist does is a cataract.

Also using timing information, if we go back to *Clinical Pathways*, you can look at the relationship in the episode of pathology and pharmacy and see where decisions are being made. An example of using timing with a quality indicator, which is part of a United States of America indicator where the blood culture is taken before or after the first dose of antibiotics. One example of using this timing information is looking at when patients are admitted and when they are discharged. This is particularly important when we look at issues like ambulance diversion where a lot of the peak time for those occur early in the week. Each column on this graph is a different colour representing a different hospital. This is looking at the emergency admissions by day of the week for a set of major hospitals. You will see that the admissions are actually pretty stable across the week. Yet if you look at how those patients who are admitted through the emergency department are discharged, there is a marked decline on Saturday and Sunday.

What is interesting is even though these hospitals look quite similar, like a lot of the other clinician level data, if you average things across an area health service, you can get like figures. When you actually go down and looked at an individual clinical department you can have a clinical department at one hospital discharging a lot of patients on weekends and the same department in another hospital discharging very few. Looking at a problem like this, the relationships are quite complex with why patients may or may not be being discharged on a weekend. That can be due to the availability of clinical services or support services in the community on a weekend. It can be due to whether the team on the ward can access the pharmacy. Are ward rounds being done on the weekend? How much discharge planning has been done? Many factors can account for those differences. Looking at this variation results in a quality project at the hospital to look at those different factors.

This graph shows a set of rural hospitals. Again, admissions across the week are reasonably flat. There is less of a difference between weekend and weekday discharges in rural hospitals and there is a bigger difference in the metropolitan hospitals, which, for some, is a bit counterintuitive. One would think rural being isolated means that you would expect the day-of-surgery admission rate to be lower when in fact it is higher. But also in the metropolitan area, they have lower rates of discharging patients on weekends. So, if we look at the metropolitan hospitals with cardiology departments, this is showing the type of range you get in the proportion of patients discharged on weekends within cardiology. This hospital has about 8 per cent and this hospital about 2 per cent of patients discharged on Sunday with 14 per cent being a flat average across the week.

Another project which I talk about in the presentation is the role of clinical audits, which are often sponsored by professional organisations. There has been a large one in New South Wales looking at carotid

endoectomies. This collects detailed information not just of the time in hospital but also of the events which may happen in the community once they have left the hospital. The Institute of Clinical Effectiveness will be working with the information that I produce to look at evidence-based practice and screening for where evidence-based practice is in place and where it could be adopted.

There is a project looking at operating theatre suite which is being run by the State Continuous Improvement Steering Committee, and we are also looking at a standard approach to credentialling which is what privileges different clinicians have at different institutions and how that relates to some of the information that is now available.

The Hon. RON DYER: Can you explain the term "evidence based" medicine?

Dr TRIDGELL: For a long time there have been papers published in the literature— thousands and thousands of papers per year—and it has been difficult, with the volume that has been produced, to identify which are good studies, where there is a lot of evidence and the evidence produced in the paper is very strong, and maybe a less well structured study. Then you have multiple studies looking at similar or related issues you then need to weigh up. Given that these different pieces of research have different amounts of validity and you have different projects which also relate sometimes to very similar but not exactly the same question which was being researched, one can then pull that together and say, "We have this number of research papers which is very high quality which says that ace inhibitors should be used in patients with cardiac failure, yet we have other papers on the effectiveness of vitamin C in preventing the common cold", where there is a large number of papers which are reasonably poorly structured and that you cannot draw strong conclusions from.

There are groups around the world that now look at the literature and structure it into different scales of evidence. Using that evidence, if we take the example of ace inhibitors in left ventricular failure, we can now look and see which cardiologists around the State, when they discharge their patients with left ventricular failure, are using ace inhibitors. If you went out to a few area health services now they are actually monitoring that as a quality indicator because there is good evidence of body that that improves the functionality of the patient's life as well as survival rates.

CHAIR: For example, you might get five different methods of treatment for a particular condition. It means that the evidence for any one of those five is not very good. If there is a choice of five methods of treatment of a particular condition in a particular age group and there are five methods of treatment which you have a choice from, it means that the evidence is not very good for any one of them or it may not be very good for any one of them.

The Hon. RON DYER: But if you have evidence, you would like to rely on it.

Dr TRIDGELL: If there is evidence which says it is the best way of doing something, one needs to ask why, if people are not doing it that way, they are not doing it that way.

CHAIR: How do you feed this back? For example, Westmead did a study on patients discharge with cardiac failure and ace inhibitors. How do you feed that back into the system without, first, the hospital being identified, as Westmead was with that retrospective study on emergency department deaths and therefore people litigate or say, "I was not given the right treatment" or whatever? In the individual it might not be the case. How do you feed that back without raising expectations of litigation?

Dr TRIDGELL: If we take that exact example of ace inhibitors, the chronic care group under the GAP have a group of cardiologists and which represent different parts of GAP. This is where the clinical governance that had been brought into place with GAP is of benefit because you have a forum where you can take that evidence and that information and they consider the issue and through that clinically focused network they make recommendations as to how a practice should be.

Mr REID: Another thing in terms of educating clinicians about that, clearly, the role of the Institute of Clinical Effectiveness is a vehicle for which we would see there being long-term application of these quality agendas to clinicians.

CHAIR: But in gathering the information is it like a section 22 committee where there is a block to discovery for legal reasons, or is this information collected in a black box situation?

Mr REID: If you are talking about qualified privilege or statutory immunity, I will come to that in a minute. You will recall that at the start we gave the history of where we are. I just want to do two or three overheads to finish on where we intend going over the next two or three years with this data, how we intend to apply it and what are some of the issues around it. In terms of where we are now—and remember that this is only the acute care component of the whole government action plan—we have left out all the other aspects around chronic care and management, community health activities, mental health and the other arenas. All we are presenting is around the acute care activities. We have now hit our target of 80 per cent of day-of-surgery admissions. These are targets set by the clinicians.

CHAIR: This is elective?

Mr REID: That is right, elective surgery. We have now hit our target of 60 per cent day-only surgery. So those two targets which the clinicians set for us on a statewide basis have been hit, and hit in a very dramatic fashion. We have evidence of improved clinical practice, some of which you saw earlier in terms of bringing together the normal curve closer together in variations in clinical practice around length of stay, clinical practice activities, day-of-surgery admissions, day-only admissions, readmission activities. So you have seen a contracting around that clinical practice. Our latest one is that we have 100 per cent of book patients to have a discharge plans in place which helps particularly with the clinical pathways we are talking about, having evidence from clinical pathways about when the discharge plan would indicate point of discharge and the activities that take place prior to that.

The Hon. RON DYER: Would the incidence of the 60 per cent day-only surgery be more or less uniform as between rural and urban areas of the State?

Mr REID: The statistics are very interesting. I do not think we have a graphic here but I have done in other presentations. They show that there is considerable variation across the State and between types of hospitals at the start of this process in how many were doing day-of-surgery admissions or day-only surgery. But I think at the moment there is not much variation. I think rural hospitals started off doing a higher proportion of day-only surgery than their metropolitan counterparts and a higher proportion of day-of-surgery admissions than their metropolitan counterparts.

Dr TRIDGELL: Rurals are still higher than metropolitans. The case mix is slightly different but it is not as different as what many would think.

CHAIR: The northern region has just hit 94 per cent. Of course, that 94 includes the 60, does it not?

Mr REID: No, 94 day-of-surgery admissions.

CHAIR: All of the day-only admissions are day of surgery.

Dr TRIDGELL: No, day of surgery only relates to overnight admissions and it is the percentage of overnight admissions.

CHAIR: So the 94 figure for day-of-admission surgery only relates to people who are admitted and discharged on a different day.

Mr REID: That is correct.

CHAIR: But of the number that are done, 60 per cent are same day and, of the remaining 40 per cent, 94 per cent can be day of admission.

Mr REID: Just in overall statistics, back to the Hon. Ron Dyer's question. Teaching hospitals currently run—this is on the day of surgery for general surgery—around 91 per cent. Rural based hospitals are running around 93 per cent, so there is still a higher figure there.

The Hon. Dr ARTHUR CHESTERFIELD-EVANS: These figures are only for State hospitals; they are not for private hospitals.

Mr REID: That is correct. They include Port Macquarie base and Hawkesbury hospital services.

CHAIR: Because they are public hospitals.

Mr REID: They are public hospitals, that is right. Where are we going? Most States now have statutory immunity or qualified privilege legislation to provide—this comes back to your very question—a degree of protection to clinicians to enable them to discuss adverse events in a full and frank manner in order that certain issues can be identified and care can be improved. This relates to whatever committees are formed which can come together and discuss clinical practice without being subject to subpoenas around that discussion. That is not to say that the data itself, and it always has been, is still available but the discussion around that data in relation to clinical practice is subject to statutory immunity or qualified privilege.

The Hon. Dr ARTHUR CHESTERFIELD-EVANS: Are minutes of that discussion kept?

Mr REID: Of the discussion, I am not too sure.

CHAIR: They did not used to but because they have section 22 committees they are kept.

Mr REID: I am not too sure whether that is absolutely uniform across all the States.

CHAIR: You cannot discover it anyway.

Mr REID: I am not too sure. I will come back to you on that. I make the distinction between the sourced data not being protected, but the discussion around that data in whatever formalised committee structure takes place is protected from been subpoenaed. That is absolutely critical because our capacity of enabling clinicians to have full and frank discussions around their colleagues and their own clinical practice obviously required some of those things to be in place. The Australian Council for Safety and Quality in Health Care, which is Bruce Barraclough's national committee on quality, is developing a core set of principles for this legislation to be applied through all States. We are leading the way in New South Wales at the moment but all other States are moving in the same direction. That is the first point.

We are developing standards for undergraduate and postgraduate education and training in quality for health professionals. We have done that in two ways. In terms of undergraduate training, we have written to the deans of all medical schools in New South Wales asking them if we can work with them to develop a common curriculum around some of these quality issues. That has now been taken on by the national committee. They were very interested in our work and they have now taken it on to do it as a national approach. So in a sense this is impregnating these lessons in undergraduate doctorate training. That is what it is about. It is about getting it back to where it should be so that medical training has the capacity for doing these things in it. In relation to post-graduate education, the national committee has approached all post-graduate committees to seek that, in the same way that we have put in the undergraduate curriculum, it will go into post-graduate arrangements.

The Hon. RON DYER: Regarding undergraduate education, are there not differences in the medical schools as to their curricula and teaching methods?

Mr REID: Yes. A number of Australian universities have now gone down the path of graduate medical training programs, obtainable upon completion of another acceptable degree. But, notwithstanding whether they are graduate training programs for doctors or undergraduate training programs for medical practitioners, the same principles will apply across all medical training schools. There has been a very positive response from all deans, nationally, to putting this into undergraduate and graduate training. It is probable that most medical schools, over time, will move towards graduate training. Sydney and New South are moving to graduate training next year, I think.

CHAIR: New South? You mean Newcastle and Sydney?

Mr REID: I am sorry, Newcastle and Sydney. I was thinking of Canberra's proposal, which is to move to graduate training with their new medical school. I would not be surprised if, over time, all medical schools moved to graduate training. In regard to national standards for credentialling and recertification of health professionals, again these are national approaches. The credentialling—just so that you will know the difference—relates to the practice of individual doctors, whereas the recertification relates to, when you go back to the College of Physicians to seek your next X years as a member of the College of Physicians, what recertification requirements there are upon health professionals in regard to their standards of work.

CHAIR: Credentialling also relates to where they practise.

Mr REID: That is correct. Finally, of course, and most importantly in terms of the clinical governance issues of boards, as distinct from the clinical governance issues of individual clinicians, are the issues around accreditation of health services and the expectations of those health services in supporting practitioners working within them.

CHAIR: I note that there has been a big change in the boards' responsibilities for clinical governance. Could you explain that to the Committee?

Mr REID: Yes. This has been a worldwide trend. The Boston and United Kingdom experience was that boards were held accountable, at the end of the day, for the practice of the clinicians within their hospitals. That has had a ripple effect throughout the world. We have been trying to spell out, in a lot more detail, just what our expectations are of boards of area health services, in terms of the support mechanisms they need to provide in order to support clinicians to practise safely within those institutions. So it is trying to draw a clear distinction between the responsibility of an individual clinician to practise according to his or her best skill base and to keep himself or herself up-to-date in those various areas, as distinct from the responsibility of the health system to provide operating theatres, quality nurses, support services, allied health workers, physical structures, education of staff, all of those things, in order to support the clinician to practise that skill that he or she has.

CHAIR: It goes further than that, does it not?

Mr REID: Yes. We have out now reports that we are at present discussing with areas. Those put requirements on every board that there be clinical quality committees set up within a board's structure in order to be the recipient of data round the quality of the clinicians within that area, and how they respond. That information is fed back to clinicians. So, in a sense, the information that Paul has been presenting includes our requirement to incorporate into the performance agreements that we have with the area health services how they will report to the New South Wales health department about their quality, but there is also a requirement on the boards themselves to have a responsibility to have in place clinical quality agendas so that they may monitor the quality of the clinicians in their area.

CHAIR: Though the boards are not telling the doctors how to practise.

Mr REID: No. The clinical committees comprise the senior clinicians within the area, consumer representatives and other management. But, essentially, it is a structure to enable clinicians to have a more formalised area-wide review of the totality of the quality of services provided within the area.

CHAIR: Are they responsible for taking action against outliers?

Mr REID: Our boards?

CHAIR: Yes.

Mr REID: That is a very broad question. I guess the best way to answer that is to say that it depends upon the nature of the outlier. Is it an outlier around length of service, or length of stay? Is it an outlier around the non-adherence to evidence-based best practice? And are they required? The answer to some of those might be no in the first instance and yes in the second instance.

CHAIR: On the advice of the quality committee?

Mr REID: On the advice of the quality committee. Where are we going? We are identifying a comprehensive statewide patient safety system. This includes numerous components. I will run through a few of those. They include improved credentialling of health professionals and recertification, both of which I have already mentioned; an effective incident management system; a sentinel events management system; specialist vocational registers; reducing hospital-acquired infections; improving pressure ulcer prevention; improved medication safety; safety systems and human factor education; open disclosures of adverse events to patients and carers; qualified privilege reform; and improved safety reporting to consumers. There are a multiplicity of areas whereby this quality agenda is being played out. This is a national approach that we are adopting with the Australian Council for Safety and Quality in Health Care, but nationally there is now this movement to a comprehensive patient safety strategy.

The Hon. RON DYER: How is that strategy developed and delivered?

Mr REID: It depends upon the various component parts, because there are different components to the Australian health care system and the responsibility for some of them. Some might be the responsibility of the colleges, some the responsibility of the Commonwealth, some the responsibility of the State health agencies, and for some clearly responsibility lies within hospital management practices. If I could give two examples. Some of the recertification processes will involve a national approach, through the specialist colleges, in order to get appropriate recertification in place. Others, such as improving bed pressure ulcer, or bedsores, management in hospitals clearly sees responsibilities lying within the various States and Territories of Australia, and how they manage patients in beds within their hospitals.

The other one, which I think I might have mentioned last time, related to the safety system and human factors education. I think I may have mentioned to the Committee last time the really exciting work that is being done—and it is probably a very bad time to draw this analogy—in comparison of aircraft management with management of operating theatre activities. We are sending a lot of our clinicians through aircraft training processes, whereby they are seeing videos of a captain on the flight deck undertaking a normal approach to landing, and how the captain starts to make a series of errors in the approach which are not taken up by other members on the flight deck as a way of indicating to him that something has occurred wrongly; or, when they do take it up, are things being dismissed by the captain as attributable to inappropriate information given to him.

Of course, management of errors in operating theatres requires that teamwork approach, as do the management of errors on a flight deck. So a lot of the ways of having non-threatening discussions with clinicians about how they deal with their nurse, their anaesthetist and other colleagues within an operating theatre are raised by way of the flight deck analogy. How that has been playing itself out as an educative tool for doctors and nurses in operating theatres has been very interesting.

CHAIR: The inquiry into Canterbury hospital is something I am still smarting about. What steps have you taken to ensure that every single hospital in this State, and every single chief executive officer—not just Diana Horvath—has learnt the lesson of Canterbury hospital, in terms of the series of errors that kept on happening, which culminated in no injury but which could have been disastrous?

Mr REID: Just like any of the series of reports that occurred around Canterbury hospital, some internal and some external, any of those reports which have more generic application we draw lessons from. We advise all of our fellow CEOs of the lessons to be drawn from them, and they in turn advise their hospital management of the lessons to be drawn from those. There is an established process in place for feeding back outcomes of coroners' reports, adverse events findings, or whatever it might be, so that their colleagues can share in that information about management.

CHAIR: I was not so much interested in the procedure as I was in the forensic way in which the Health Care Complaints Commission investigated that process. The lesson was not in relation to Canterbury hospital itself, but the way in which each step was carefully examined as a way of determining the problem and, I hope, correcting it.

Mr REID: I agree. One of the strengths of New South Wales is its Health Care Complaints Commission. If you visit other States, as you would have done, you would know that they are not as robust in terms of their independence from a department and from the political processes.

The Hon. Dr ARTHUR CHESTERFIELD-EVANS: What, the Health Care Complaints Commission?

Mr REID: Yes. They are nowhere near in the same context.

CHAIR: Nothing like it. I am on the committee that supervises it, and I have travelled around the world, and no other body does it anywhere near as well.

The Hon. Dr ARTHUR CHESTERFIELD-EVANS: I will take that up elsewhere.

CHAIR: Not necessarily the practice, but the process of the Health Care Complaints Commission is the most rigorous of all.

The Hon. Dr ARTHUR CHESTERFIELD-EVANS: Yes, it is rigorous all right! You could say that.

Mr REID: If I could move along. Best practice guidelines for the appropriate use of blood and blood products is an issue that we will be particularly looking at over the next two years. We have let an expression of interest to develop some of the guidelines for the appropriate use of blood, and where we have already developed appropriate policies we have sent those out to the system. This flows from the national report that was done about the application and use of blood, a report that showed that there was quite a degree of variability in practice regarding blood usage.

CHAIR: I saw those guidelines. They arrived almost like a bolt from the blue. As a clinician, I was shocked that they hit my desk almost without warning that they were coming. There were discussions beforehand.

Mr REID: There had been a fair amount of discussion around them.

CHAIR: Mostly with the haematologists and the blood bank people, but not with the clinicians. Then, suddenly, these clinical guidelines hit the deck, and they referred to a haemoglobin of 7.2. I went, "Wow!"

The Hon. Dr ARTHUR CHESTERFIELD-EVANS: Is that when you give a transfusion?

CHAIR: Yes.

The Hon. RON DYER: Dealing with the operating theatre matter to which you referred a short time ago, and the flight deck analogy, I suppose there is a human element that might be involved so far as interpersonal relationships are concerned. For example, Dr Pezzutti might be very authoritarian and disinclined to accept advice. Would you like to comment on that—not on Dr Pezzutti?

Mr REID: That is exactly the reason that this is taking place: it is showing that individual styles and individual responsiveness to colleagues' advice or suggestions, particularly when those colleagues are lower down in the pecking order, in the flight deck arrangements, have led to significant incidents occurring in flying, as they have no doubt led to significant incidents occurring in operating theatres. So this is how people can actually live by the words "Working as a team". This is absolutely critical, and it comes down to individual personalities, which is an issue trying to be addressed through this process in a non-threatening way.

CHAIR: It is tricky. When you use scenarios and simulations now everyone has a part to play in feeding in the information.

Mr REID: With regard to the last overhead, this is an intricate process. You are really getting a report in some very exciting, early days in respect of a major thrust on quality in New South Wales and Australia. A lot of it is related to increased sharing of information, and not just any information. It is higher-quality information, provided in a more timely fashion with a degree of interpretation around it. Those three things hanging off our databases have not existed in the past. The information you received from Dr Tridgell is evidence of the timeliness, interpretiveness and quality of it. Our tools for analysis are improving. Our tools are improving, but we clearly have to do a lot more work, particularly through the institutes, about how to bring clinicians into the game of using the tools and the information.

We recognise that there are always local interpretations and local reasons why things do or do not happen. This brings into place why we are providing this information in as non-threatening and non-punitive fashion as possible to individual clinicians in individual departments of individual hospitals, so that they can discuss it with their peers and colleagues. We hope for a true effect through that peer review, rather than a name and shame type of process. There are often reasons for variation that are beyond clinical practice, but it is important that people understand that there are variations and that they should explore those variations.

This one will become increasingly important. I am not only talking about two years hence; it will become increasingly important over the next 10 years in Australia. We are starting to develop links between data sets, whether they be ambulance statistics, hospital statistics, medical benefits schedule statistics, pharmacy usage, diagnostic applications or general practitioner services. Those links to be enabled in many of those sets require such things as patient identifiers—ways of tracking patients between the various component parts of the system. The summation of those links will also enable what will be a long-term aim of our health system, as it is of most health systems, the development of electronic health records.

Regarding the use of evidence-based medicine, it is a simple matter of saying on the basis of the best evidence we have worldwide, what is the best clinical practice to apply to this patient for this condition. We know

considerable variations remain throughout the world, some attributable to lack of evidence, a lot attributable to clinicians not be aware of the evidence and some attributable to clinicians both having the data and evidence but not changing their clinical practices as a result of that.

CHAIR: That is all about practice. What are you putting in place to measure outcomes? In other words, how are you comparing outcomes in New South Wales to the continuing work being done by Paul Tridgell? More and more people will align around a narrower and narrower band of divergence so far as management is concerned. The outcomes will continue to vary, perhaps a little more widely than the pathways, but how do you compare this system with systems in Victoria, London or New York?

Mr REID: If I just take the strain of the evidence, much of the databases we have been talking about will relate to Australiawide approaches to some of these quality outcomes. Some are process measures. Some are adverse events, readmission rates, whatever they might be. Ultimately the outcome is quality and length of life. They are the two ultimate indicators of the benefit of these. Certainly, Australia ranks very highly at the moment in terms of those ultimate quality indicators.

I guess one ultimate outcome might be if you were to take one at a point in time which would reflect the benefits of these applications to our hospital system would be a replication of the national study. That study looked at how many adverse events occurred within our public and private hospital systems nationally; and whether that has improved as a result of the work of National Quality Committee, arising out of these various quality indicators.

CHAIR: Would you address the issue of how you are going to manage the new reporting system on adverse events? Do you have a slide? What can you say about that?

Mr REID: Not a lot yet, because it is still work in progress. We are trying to work out what is the information that should be held and managed locally; what is the information that should go into the quality committees; what things should we be collecting at a statewide level. Of course, the national committee has an interest in some broad, national projects.

CHAIR: What are you going to do about the information once you have collected it?

Mr REID: With all of this information we have been trying to arrange a constant feedback loop to individual clinicians. One, we are trying to share the information with the doctors concerned; two, we are trying to give them the tools whereby they can analyse that; three, we are advising them that they need to apply local interpretations around the information; four, if there are variations between colleagues or between one hospital and other hospitals they need to look at them; and, five, what other links are there with other things that take place in respect of which there are other data sets in this hospital and this area health service. You could take this approach on a statewide level—an individual feedback approach to individual clinicians.

Finally, in respect of the statewide quality and outcome indicators, the question is how does one provide quality indicators on the Australian healthcare system as monitoring tools. That is really work that is being undertaken nationally at the moment through Bruce Barraclough's committee. That is the presentation.. We thank you for the opportunity to make the presentation to the Committee. It is very exciting. It is driven at quality. It is evidence based and information based as best we can get it. It is not name and blame, or blame and shame, or name, blame and shame; it is an attempt to use the goodwill of clinicians who all have a passionate desire for quality in their individual practice, and with their colleagues. It is an attempt to provide them with the best tools to ensure that that occurs.

CHAIR: The Hon. Dr Arthur Chesterfield-Evans asked a question earlier about demand management. I will ask him to restate his question.

The Hon. Dr ARTHUR CHESTERFIELD-EVANS: First of all, I congratulate you. You have come a long way from the days when a registrar could be shot for asking, "Why do you do it differently from the other surgeons, sir?"—a question that was not appreciated, I might add. Coming back to the question of demand management. It seems to me, speaking from the point of view of a clinician some years ago, that there was a gross underestimate of the amount of tobacco-caused disease. I believe the estimate was about 10 per cent of hospital admissions. In the cancer and intensive care wards where I was working it would have been at least 25 per cent, I suggest. There are very few quit-smoking programs. According to the American literature, although I am a few years off the pace now, I believe it required of the order of $US7 per person per year to be cost-effective in terms of savings and health costs.

We puddle along at 16¢ or 20¢ nationally, I believe, which would suggest we are not putting into effect demand management, in the sense of preventive health being cost-effective at saving acute resources. I think so far as broken hips are concerned we are spending a fortune on fosimax, for example. That is a drug that is supposed to prevent people from breaking their hips, but we are not spending money on exercise or weight reduction programs. This seems to be beyond the scope of what you are doing, and yet it is not really beyond the scope of measurement technology and easily-extrapolatable into population demographics. Can you comment on what scope these areas have had what is being done about them?

Mr REID: Taking this as a non-estimates question and more a broad question about quality agenda, I think it is true to say historically in healthcare systems there has not been a good understanding of the benefits of health preventive activities and health promotion activities, in terms of health costs—particularly the impact upon the acute care and/or healthcare costs. It is not possible to draw a direct link between the Californian data and the New South Wales data. This is a side issue.

The Hon. Dr ARTHUR CHESTERFIELD-EVANS: I would dispute that.

Mr REID: The New South Wales data does not include any extension of our area health services in regard to smoking cessation. Putting that aside, I think there is being put together just in the context of our evidence-based approach to acute care, far better evidence relating to the benefits—or, in some cases, the lack of benefits—associated with a range of health prevented activities. One example which I mentioned to the honourable member was that we have very good evidence now about the impact of preventive measures associated with falls in the elderly in the context of home modification, exercise activities and obesity control; and the impact of that, not only on the welfare of the individual but also the quite significant reduction in costs associated with long stays in hospital because falls have been reduced.

That evidence is now being applied throughout the health-care system. As we have other equally linked evidence I think we will find that it is better applied. The whole of the chronic care budget of $45 million is designed to better manage people in happier way within their own environment and within the community so that they do not end up as constant readmissions into our hospital system.

CHAIR: You are referring to that as demand control?

Mr REID: Well, I took the start of the honourable member's question relating to demand control has not quite as I would understand demand control. I did not go into that the detail. I am talking about prevention and health promotion as distinct from the acute end, which is not demand versus supply. Within our chronic care system the management of the frequent fliers, those who have numerous admissions to emergency departments, general practitioners and acute care, through better—in the honourable members terms—demand management of those people within their home environment we are already demonstrating reductions in admissions to the hospital system.

This is evidence of a very sophisticated health system, because in the past it has been difficult for clinicians and manages, and other people, in one component part of the system to recognise and to be party to planning services which interface with a range of other parts—even if at the end of the day it might reduce admissions into their hospitals, for example. All of those 60-odd programs which are running out in our chronic care program are designed to try to keep people healthy are within the environment in which they live.

CHAIR: There was a discussion on ABC radio this morning about breast self-examination and a misinterpretation of a major overseas study about the value of breast self-examination to identify and reduce the death rate from breast cancer. It related really not to whether breast self-examination was a waste of time, but whether are the large amounts of money spent by government in promoting it was cost-effective. People, and the media I suppose, played that as though breast self-examination was a waste of time. It is not. You have to be very careful when talking about the things that you do and what evidence is available to define that evidence properly.

Mr REID: That is correct. That is a good example. It is the cost that goes with the evidence that might be the indicator that is looked at. One certainly would not look at the act of breast self-examination.

The Hon. Dr ARTHUR CHESTERFIELD-EVANS: I repeat the question that I asked earlier as I was not entirely happy with your answer. Some years ago I attended a seminar which was held by the New Zealand Atherosclerosis Society in Dunedin. That was in the days when simvastatin was just being marketed by the drug

companies, and most assiduously I might add. They basically said, "The people in this age group with this smoking rate and this cholesterol level are likely to have so many coronary bypasses within 10 years. The cost of a coronary bypass is X. If 100 people are put on the drug we believe that the number of coronary bypasses will be reduced by 4 per cent. The cost of this drug is the equivalent of four coronary bypasses for 100 people, therefore you will come out just ahead."

That seemed to me to be a bold, innovative way of pricing something as opposed to referring to its production cost or anything else. At least the drug companies were saying, "This will be the outcome in this group of people with these physical characteristics." If you had a healthier group you might have had a far lower coronary bypass rate. Presumably that would apply to a number of different diseases that were suffered by people in that group. If you changed their behaviour, they quit smoking and they moved into another group, you would reduce not only the coronary bypass rate but also the lung cancer rate and everything else. That was done by the drug company obviously after a controlled study of people who were on the drug and people who were not on the drug.

Assuming that that study was done correctly—and I am not confident that it was—we must compare population groups and the incidence of various diseases and we must measure the cost of transferring people across. I remember a person at Malabar sewerage treatment works who was soon expected to have a coronary. I rang the hospital and said, "This man has not yet had a coronary. Will you put him on your terrific health promotion program, help him to lose some weight, get him to stop smoking, encourage him to do some exercise and bring his blood pressure down to a manageable level as he suffers diabetes?" They laughed at the other end of the phone and said, "Will you ring when he has had his coronary? We are pretty stressed." In a sense, that is the answer that you have given me. The hospitals are working flat chat. If more people get sick it does not affect how much work the hospitals are doing. That is not a logical answer.

Mr REID: I do not wish to emphasise that answer. I agree with what you are saying. Where there is good evidence we should try to apply it. We should try to modify the pattern of our health care to accommodate that evidence.

The Hon. Dr ARTHUR CHESTERFIELD-EVANS: But if you are not looking you will not find anything.

Mr REID: The only comment I make is that the application of dollars to that evidence raises a complexity. It goes back to the same point: the application of dollars to those issue raises a complexity. If we use the high opportunity costs of a bed or the high usage of a bed it is saved by three factors—those who are waiting for hospital admissions; the growth of the ageing population; and the ever-increasing utilisation per head of population. The savings which are accorded by preventive measures are often not realised or clearly identified at the other end of the spectrum. That is the only comment I make. I am agreeing with you.

The Hon. Dr ARTHUR CHESTERFIELD-EVANS: Let us take the simvastatin methodology, extrapolate it, and refer to the two populations—the fat ones and the thin ones or the smokers and the non-smokers. You should be able to obtain that data fairly easily. Once you have the data the only aspect in that data that you would not know would be the cost of making the fat people into thin people, those who smoke into non-smokers, or the cost of reducing high cholesterol levels. That should be relatively easily achieved through such a study. You would then say, "We know that the hospital is working flat out and that these people could be placed on a waiting list." You could assume that, if you changed the incidence of these diseases, you could be saving money.

CHAIR: The honourable member is referring to the boldness of identifying the information and investing the money—taking it out of one area and putting it into another—with an expected gain perhaps 20 years down the track.

Mr REID: That is correct.

The Hon. Dr ARTHUR CHESTERFIELD-EVANS: Let us refer to smoking. The incidence of heart attacks drops within 48 hours if people quit smoking. Clinicians say, "Yes, heart attacks can be prevented." However, I happen to be one of those people who just enjoys operating. Basically, there is competition for resources.

CHAIR: With expected gains in one, two or three years time. I remember when the North Coast Area Health Service introduced the healthy lifestyle program—probably the most innovative program introduced by Bernie Mackay.

Mr REID: Back in the 1970s.

CHAIR: Back in the 1970s. That most innovative and unusual program had outstanding and quality results.

Mr REID: There is an add-on effect. Australia should be proud of what it has done. Take the activities in relation to tobacco legislation in this State. The New South Wales Parliament should be proud of what legislation has been put in place, with the benefit of recognising that this legislation will assist in reducing illness either from smoking or from being near tobacco products.

CHAIR: Imagine what costs would be incurred now if we had not done that and we had not reduced our smoking rates.

The Hon. Dr ARTHUR CHESTERFIELD-EVANS: We passed legislation which stopped smoking in restaurants some six or seven years after we were asked to do so by restaurateurs. The idea that we have made rapid progress in relation to smoking legislation is just a nonsense. The lack of courage of successive governments to act against the tobacco industry has been a national and international scandal.

CHAIR: The Director-General said that it would have been worse if those steps had not been taken in the 1970s. We would now be spending a lot more on all the things that were mentioned earlier.

The Hon. DOUG MOPPETT: The laymen on this Committee have had some difficulty coming to grips with the Committee's terms of reference. Obviously, the department and the profession are interested in looking at the analysis of global figures and the impressive through-put of operations. The thing that struck me in ordinary life is the number of people you meet who have had these adverse outcomes, or who have acquired diseases in hospitals. I am not sure whether they are being buried in an ever-increasing turnover. I think we have all been impressed with how, in recent years and even before that, there has been an attempt to get a handle on this to find out where it is happening and to find out who may be responsible, without naming and shaming them.

As a consumer of medical services I am alarmed by the number of people that I have spoken to who went into hospital with one problem and who spent either a longer period in hospital or who came out and had other diseases as a result of their stay in hospital. Despite the dedication of many nurses, other people experience inappropriate treatment while they are going through the service. Somehow or other we, as members of this Committee, do not seem to have come to grips with that sort of evidence. Is that sort of case history—the nuts and bolts of those issues—available to the department? You seem to have been able to sanitise this into the significance things to look at, such as the greater rates of day surgery. I can understand how good it is if you do not have people in hospitals for a long period. However, it seems to me there is an air of unreality about what we, as a Committee, are investigating and about what people in the street are experiencing.

Mr REID: We are doing this because the first principle in the practise of medicine is: Do no harm. There has been evidence in our hospital systems and in the hospitals of other States and internationally that, on some occasions, harm does occur. It is avoidable harm. That is not a sign of any avoidable harm that occurs. There is not a sign that something should be tackled at its root cause. Each year we provide 22 million occasions of service in our health system to the population of New South Wales. All follow-up analyses of people's satisfaction with the health system—once they get in there—record consistent and exceedingly high levels of satisfaction. But even a percentage point within that 22 million is a high number of people who might be dissatisfied, who might have had an adverse event, or who might have died in our system from something that is unavoidable.

So the focus of the quality agenda should be on trying to avoid those adverse events. Whilst my presentation and Paul's presentation might have appeared as though we were endeavouring to sanitise—they might have been interpreted in that way—we are trying to get to the root of those things that go wrong in our hospital system. We are trying to understand why. We are trying to get better data to monitor and predict when that occurs. We are trying to get better clinical education about that. We are trying to get peers interested in their colleagues and to be willing to take on their colleagues when they are not performing adequately. We are trying to put a process in place whereby people can feel comfortable talking to each other about these things.

Even though there might be some indicators that are open to other interpretations, early evidence from what we are doing shows that some benefits are occurring in our system. I take your point. Any adverse events are unacceptable. It is unacceptable that any people die in Australia's health care system, when it is unavoidable. We should be doing everything possible to try to avoid that. This process is not driven to try to present an information

system that does not require any intervention. This whole process is driven in recognition of a national survey which showed that there were 14,000 avoidable deaths within our hospital system in any one year.

T**he Hon. Dr ARTHUR CHESTERFIELD-EVANS:** I thought it was 17,000, but I could be wrong.

Mr REID: That is what we are on about. Anything that this Committee can provide to support, strengthen or encourage that process would be welcome.

CHAIR: From your point of view the one telling aspect was Paul's ability to measure things minute by minute and to feed that back. The number of people who are readmitted within 28 days, for whatever reason after being operated on, was reduced from 3.3 per cent to 2.65 per cent. In a system like New South Wales Health, where we are talking about millions of occasions of service and almost a million admissions into hospitals—

Dr TRIDGELL: Over 200,000 elective surgical admissions.

CHAIR: That means a saving in readmissions of thousands of patients. It is a moot point whether or not you will ever get readmissions within 28 days to zero. Even if no errors were made, because of the nature of the circumstances, some people would be readmitted for various reasons. That change in measurement in real time is what excites me—going from 3.3 per cent to 2.65 per cent. That is almost three-quarters of a percentage point. That tells you that, by driving in this direction, you are getting better outcomes. That is what matters. It matters to me and it should matter to patients who are coming in for elective surgery.

You are talking about big numbers. But it is only through big numbers that you can establish what makes a difference. You might require 50 or 60 occurrences before one adverse thing happens. Sometimes you might require a million occurrences before you get one adverse outcome. That is the incidence of adverse outcomes as a result of this intervention. I think that those are good figures. That indicates that, by reducing the length of a patient's stay and so on, it is working for the benefit of the patient.

Mr REID: I should emphasise that the focus, as much as it is on individual clinicians, is also upon the health system as a whole to support those conditions.

The Hon. Dr ARTHUR CHESTERFIELD-EVANS: May I ask two more questions on demand management? First, are you likely to be doing any research along the lines that I suggested in the simvastatin study?

CHAIR: Question one, yes.

Mr REID: Yes.

CHAIR: Any ideas which ones they are?

Mr REID: No. There is constantly a range of ailment prevention and health promotion studies in trying to prove the benefit of those. We can provide what we are currently doing to the Committee, if that is your wish.

The Hon. Dr ARTHUR CHESTERFIELD-EVANS: I would appreciate that. The second question is: Recently you have spoken about complex cases and complex case management. It seemed to me that in Britain the co-ordination between hospital doctors and general practitioners [GPs] is far better than it is here. I have not been around recently but there is some outreach from hospitals. It is still pretty dodgy out there in general practice land for most people. I gather that the management of people in complex cases would have people other than doctors involved in co-ordinating those cases. Can you comment on that and how that is going?

Mr REID: I would not want to leave on record my tacit agreement with the first part of your comment. I place that on record. I do not believe that the national health system [NHS] in terms of management of chronic and complex cases currently has a great deal to teach us in Australia—

CHAIR: Or anybody.

The Hon. Dr ARTHUR CHESTERFIELD-EVANS: No, I did not say that. I said there was better co-ordination.

Mr REID: —or in terms of its interface between GPs and the rest of the system. Obviously we have a structural difficulty in Australia in that GPs are being remunerated by the Commonwealth and the rest of the health care system is remunerated by the State, or another component of it. I would like to give to the Committee all the projects which have been funded under the chronic and complex care committee of the Government Action Plan. You will see in those 60 or 70 different projects, which are related to the care of cancer, heart or respiratory conditions, that all are predicated on performing better bonds and a better mix between all the various component parts of the health system, whatever that is, and trying to be explicit about how that is.

They are not predicated on a generalist comment about who the care co-ordinator should be, if I can come to the last part of your question. Some of them cut across all those three conditions—particularly when we have funded projects to look at Aboriginal communities, where it would be inappropriate to look at chronic and complex care management of individual components without having a better understanding of the interrelationships between respiratory, heart and whatever it might be. I would like to give you that.

CHAIR: In our area, the delivery of a lot of this money—which is not just State money because there is a lot of Commonwealth money in its as well—comes through the divisions of general practice and the co-ordination of care through the divisions of general practice taking a part of the contract from the State and using some of their Commonwealth money to do it. Hospital in the Home is another example and so on. It is not just Commonwealth money in the co-ordination process.

Mr REID: Yes, although my discussions were centred on talking about the $45 million. The Chair is quite right: There is a range of other dollars flowing to improve co-ordination and they are mainly flowing where divisions are keen and anxious, from Commonwealth moneys, to have that co-ordination approved. Certainly I am happy to give a presentation to the Committee around that, but what I would like to do is provide what we are doing. Perhaps you would like to have a look at that and ask subsequent questions.

The Hon. Dr ARTHUR CHESTERFIELD-EVANS: I am not falling over in admiration for the British National Health Service.

Mr REID: No, okay.

The Hon. RON DYER: Mr Reid, on a previous occasion you told the Committee about the Government Action Plan, which I think was commenced some time in the first half of last year and whose principal objective is, I think, to improve the quality of health services in New South Wales. I think it is common ground that that is a work in progress and, by definition, it is incomplete. I have some difficulty in understanding how the Committee can assist in this inquiry in that sense. In a way, we are inquiring into a process of implementation that is currently under way. How do you see that and the role that the Committee has, or is that asking an unduly political question?

CHAIR: We are open to advice. If the director-general could give us some advice, we are more than happy to take it.

Mr REID: I think it would be not appropriate for me to give advice to the Committee on where it is going. You are absolutely right in that there is a range of activities that we have in place around the Government Action Plan and they are rolling out as we speak. A number of them have not commenced rolling out in any major fashion yet, in particular the rural aspects of the Government Action Plan. However, if the focus of the Committee was limited and focused on the quality issues, as Dr Paul Tridgell presented them to you, then I would be delighted for the Committee to view how our areas are responding to those quality agendas. I certainly would not wish to inhibit the Committee from doing that because any external encouragement of that process can only be to the betterment of the health care system.

CHAIR: I will take your advice but, as I see it, we are here to look at what has been done up until this year and what is proposed to be done until 2003. That would take in the works in progress but also, when we go to the area health services, it looks at how much they have interacted and responded. In other words we are looking at the capacity of each area health service to interact and respond, how well they have done so, and what the results have been. I will bet that they vary across the State.

Mr REID: Yes, although there are many things, as the Hon. Ron Dyer mentioned, particularly in the rural areas, that the Government Action Plan is yet to roll out because the Committee—

CHAIR: We will find out. They will tell us. I will ask Dr Paul Tridgell now. There have been varying responses and various activities in the different area health services. Would that be correct?

Dr TRIDGELL: That is correct.

CHAIR: So although it is a big system and the director-general puts out a plan and they have got certain numbers, it depends upon the local managers and the local clinicians whether they actually follow up with alacrity and responsiveness and all that sort of stuff, or whether they start behind the eight ball or ahead of the game.

The Hon. RON DYER: But there are some difficulties, though, are there not, in measuring something that is currently in train and incomplete?

CHAIR: You can still measure outcomes and quality.

Mr REID: I think you are entering the field at an early stage in its roll-out.

CHAIR: If there are no other questions for the director-general, this hearing will conclude.

(The witnesses withdrew)

The Committee adjourned at 4.08 p.m.