

MATTERS ARISING

The Bundaberg Hospital scandal: the need for reform in Queensland and beyond

Public reporting of individual surgeon performance

543 Stephen Clarke, Justin G Oakley, David A Neil, Joseph E Ibrahim

Measurement, monitoring and clinical governance

543 Sue M Evans, Peter A Cameron, Paul Myles,
Johannes Stoelwinder, John J McNeil

Optimising hospital systems comes first

544 Anthony P Morton

Dramatic changes for the better are already occurring

544 Bruce H Barraclough

It's time to plan our future health system

545 Peter M Brooks

A half-day each month for quality and safety activities

545 R James Aitken

Re-inventing the wheel?

546 Megan A Bohensky, Joseph E Ibrahim, David L Ranson

1928 Royal Commission "The fatalities at Bundaberg"

546 William Coote

Moving forward

547 Martin B Van Der Weyden

The Bundaberg Hospital scandal: the need for reform in Queensland and beyond

In the aftermath of Bundaberg, the MJA Editor's call for Australia's political leaders to fast-track a national program ensuring quality and safety in health care prompted a medley of responses. (MJA 2005; 183: 284-285)

Public reporting of individual surgeon performance

Stephen Clarke,* Justin G Oakley,[†]
David A Neil,[‡] Joseph E Ibrahim[§]

*Research Fellow, Centre for Applied Philosophy and Public Ethics, Charles Sturt University and the Australian National University, Canberra, ACT 2601; [†]Director, Centre for Human Bioethics, Monash University; [‡]Lecturer, Faculty of Arts, University of Wollongong; [§]Professor, Rehabilitation, Aged and Palliative Care Services, Peninsula Health, Mt Eliza, VIC. Stephen.Clarke@anu.edu.au

TO THE EDITOR: Last year, three of us made a case for the public reporting of individual surgeon performance information.¹ We argued that considerations of safety and accountability strongly justify the collection of individual outcomes data, and that considerations of patient choice make it very hard to argue against the public reporting of collected data. The public trust in health care in Australia has, in the words of a recent *MJA* editorial, "taken a pounding" as a result of a series of scandals at the King Edward Memorial Hospital, Perth, in 1999, the Canberra Hospital, in 2000, and the Campbelltown and Camden Hospitals in NSW, in 2002.² We noted that recent developments in public reporting of surgeon performance information in the United Kingdom were driven in large part by the Bristol Royal Infirmary Inquiry, and we warned of the danger of waiting for a scandal like Bristol to occur before acting to improve performance management.

Unfortunately, a scandal, perhaps on the scale of that at the Bristol Royal Infirmary, has now occurred in Bundaberg. Although this scandal is ostensibly about the failings of one badly performing surgeon, it is widely seen as symptomatic of a failure of regulation of health care throughout Australia. The Queensland Health Systems Review, headed by Mr Peter Forster, was established in April this year as a result of public disquiet resulting from the Bundaberg scandal.³ The Premier received the report on 30 September and has recommended a wide range of reforms including increased performance monitoring of a range of health care outcomes (Recommendation 13.2), and the insistence that information on health system outcomes be made public (Recommendation 13.3).

We welcome the review's recommendations as both a necessary component of a successful system of management of the health care system and a means to begin to restore public trust in the health care system. Unfortunately, we suspect that this may not be enough to restore trust in the system. A system in which a plainly incompetent surgeon has been allowed to continue operating is one where, in the eyes of the public, the performance of all surgeons working within that system is called into question. A public reporting system that provides reliable and valid information about individual surgeons, as well as hospitals' clinical performance, would be a significant step towards restoring the public's confidence and ensuring transparency within that system.

1 Neil DA, Clarke S, Oakley JG. Public reporting of individual surgeon performance information: United Kingdom developments and Australian issues. *Med J Aust* 2004; 181: 266-268.

2 Van Der Weyden MB. The Bundaberg Hospital scandal: the need for reform in Queensland and beyond [editorial]. *Med J Aust* 2005; 183: 284-285.

3 Queensland Government. Queensland Health Systems Review. 30 Sep 2005. Available at: <http://www.healthreview.com.au/> (accessed Oct 2005). □

Measurement, monitoring and clinical governance

Sue M Evans,* Peter A Cameron,[†]
Paul Myles,[‡] Johannes Stoelwinder,[§]
John J McNeil[¶]

*Executive Officer/Research Fellow, [†]Professor of Emergency Medicine, [‡]Professor and Director, Department of Anaesthesia and Perioperative Medicine, [§]Professor, and Chair of Health Services Management, [¶]Head, Department of Epidemiology and Preventive Medicine, Monash University, NHMRC Centre of Research Excellence in Patient Safety, Level 3, Burnet Building, Alfred Hospital, Prahran, VIC 3004. sue.evans@med.monash.edu.au

TO THE EDITOR: The article by Morton¹ and the editorial by Van Der Weyden² raised some important points. Investment in redesigning the health bureaucracy and recruiting more clinicians to work in Queensland is clearly important, but we also need to address more fundamental issues to ensure optimal quality of care. The following two matters require particular attention: lack of measurement and monitoring; and developing clinical governance.

We cannot know how hospitals are performing unless we have well developed and validated markers of quality of care that can be risk-adjusted and benchmarked. Measurement and benchmarking are fundamental components of quality assurance in virtually every industry other than health care, and it is difficult to see how standards can be guaranteed and improved unless they are adopted more widely in health care.

In contrast to Bristol, where data on cardiac surgery were collected but not used effectively,³ we also need systems in place to react to poorly performing individuals, units or hospitals. Effective monitoring is also currently limited by an inability to link data, such as deaths, re-admissions and complications.

Clinical performance has depended too much on personal capabilities — training, experience, memory and vigilance. Although important, the avoidance of human error will necessitate change to a more system-focused approach to patient care.

This will involve greater coordination of care to improve efficiency and to build layers of safety into our daily work practices. Currently, supervision of medical practice is extraordinarily diffuse. The accountability of medical practitioners must be made more explicit, and greater attention paid to ensuring that skills are gained under adequate supervision and maintained over time. Simulation offers great potential for identifying vulnerabilities in a learning environment and in the adoption of new technologies into routine practice.

Doctors have traditionally been reluctant to adopt clinical pathways or decision support tools to supplement memory and record clinical information and results. However, these can help standardise clinical care and reduce human error by ensuring that uniform, evidence-based practices are adopted. These strategies will also provide the basis of effective clinical governance.

1 Morton AP. Reflections on the Bundaberg Hospital failure. *Med J Aust* 2005; 183: 328-329.

2 Van Der Weyden MB. The Bundaberg Hospital scandal: the need for reform in Queensland and beyond [editorial]. *Med J Aust* 2005; 183: 284-285.

3 Department of Health. The Inquiry into the management of care of children receiving complex heart surgery at the Bristol Royal Infirmary: final report. London: Bristol Royal Infirmary Inquiry, 2001. Available at: <http://www.bristol-inquiry.org.uk/> (accessed Oct 2005). □

Optimising hospital systems comes first

Anthony P Morton

Consultant, and Medical Statistician, Infection Management Services, Princess Alexandra Hospital, Woolloongabba, QLD 4102.
amor5444@bigpond.net.au

TO THE EDITOR: Recent articles drawing attention to the “Bundaberg problem” and its causes^{1,2} have stressed the need to make hospitals safer. Queensland Health’s approach to improving quality has been the Measured Quality Hospital Reports.³ Unfortunately, this approach puts the cart before the horse.

The quality of all work is a function of the systems in which it is performed.⁴ Therefore, it is logical to concentrate first on optimising hospital systems. When that is done, the work of the hospital should be consistent and reproducible. It is then logical to use measurement to detect any deterioration or to gauge the effect of any effort to improve a hospital’s systems. This measurement needs to be sequential, and, where random variation occurs, it should take advantage of the excellent statistical process control methods now available.⁵ In addition, the limitations of risk-adjustment must be applied and understood. Where possible, this is best done at a local level, as at this level risk-adjustment can be made to work better,⁶ and local ownership promotes efforts to learn how to improve rather than efforts to be seen to comply with a target. Putting measurement first encourages excuses (eg, demographic and classification differences), quick fixes and gaming, not solutions.

Correcting hospital systems requires, for example, a focus on specific processes, use of evidence, employment of multidisciplinary teams, independent audit of surgical outcomes, proper supervision of junior staff and, above all, leadership.⁴ Central offices are seen to be remote, judgemental, controlling and arbitrary. It is very difficult to foster ownership and trust in such an environment. Without trust, leaders do not emerge and teamwork becomes impossible.

To achieve better systems in hospitals, central offices have to change; they have to become coaches. They must help hospital staff with the difficult task of analysing and changing their systems. They must then institute programs of surveillance to ensure that this process is sustained. Central offices need to ensure that, if a hospital’s measurement system detects a possible change in the quality of its care, a search for a possible

cause is undertaken and, if a cause is found, appropriate corrective action is instituted.

Demands on hospitals are potentially infinite and resources are not. Determining what is best requires informed public debate. However, whatever the resources available, safe care is likely to be less costly than unsafe care, as there is much less failed work needing redoing.

- 1 Van Der Weyden MB. The Bundaberg Hospital scandal: the need for reform in Queensland and beyond [editorial]. *Med J Aust* 2005; 183: 284-285.
- 2 Morton AP. Reflections on the Bundaberg Hospital failure. *Med J Aust* 2005; 183: 328-329.
- 3 Sommerfeld J. Our hospitals’ health. *Courier Mail* (Brisbane) 2005; 24-25 Sep: 22.
- 4 Morath JM, Turnbull JE. To do no harm: ensuring patient safety in health care organizations. San Francisco: Jossey-Bass, 2005: 45, 204, 227.
- 5 Beiles B, Morton A. Cumulative sum control charts for assessing performance in arterial surgery. *ANZ J Surg* 2004; 74: 146-151.
- 6 Graham PL, Cook DA. Prediction of risk of death using 30-day outcome: a practical end point for quality auditing in intensive care. *Chest* 2004; 125: 1458-1466. □

Dramatic changes for the better are already occurring

Bruce H Barraclough

Chair, Australian Council for Safety and Quality in Health Care; and NSW Clinical Excellence Commission; Professor of Cancer Services, Northern Sydney Central Coast Health, Royal North Shore Hospital, Pacific Highway, St Leonards, NSW 2065.
bbarra@ozemail.com.au

TO THE EDITOR: I am surprised that your recent editorial¹ failed to recognise the quite dramatic changes for the better occurring in our health system and the way these changes have come about.

In July, the Australian Health Ministers agreed that there had been widespread acceptance of the National Safety and Quality agenda developed by the Australian Council for Safety and Quality in Health Care, and agreed to build on the Council’s extensive platform of reforms by establishing the Australian Commission on Safety and Quality in Health Care to continue this work.²

They noted change and progress in key areas, including the development of incident management systems in all jurisdictions to fix problems in a timely way. All public hospitals are developing integrated patient safety risk management plans, a common protocol for correct site procedures has been accepted, and across the system the booklet *10 Tips for safer health care*³ is being given to patients on admission to hospital to enhance their ability to ask the right questions and better control their care.

The Australian Council for Safety and Quality in Health Care has commissioned preparation of the first national sentinel events report. Each state is teaching health care staff “root cause analysis” methodology and, on the back of this, there has been a massive increase in reporting across the country — 30-fold in New South Wales — because people realise that systems issues will be fixed without inappropriate blame. This supports openness about mistakes and the reporting of problems.

Other national initiatives under way include an education framework for safety and quality, a single common medication chart in all public hospitals, agreed national approaches to infection control, as well as a national open disclosure standard and a national standard for credentialling and defining the scope of clinical practice. Ministers have endorsed this standard, which, if applied appropriately, could be expected to help prevent situations like that in Bundaberg. The Bundaberg scandal, however, appears to have been caused initially by a fraudulent application for registration. The safety and quality agenda does not address criminal behaviour, but puts in place opportunities for improvement.

These are only some of the reforms being implemented using levers for change, which include leadership, advice, persuasion, example, and the development of tools, standards and guidelines. Commonwealth, state and territory health and human services departments, as well as organisations in the private sector, continue to be responsible and accountable for implementing these activities.

Internationally, the Council’s work is held in high regard by authorities from the United Kingdom, the United States, Canada and Ireland, who are seeking advice about how coordination of these activities across the health and human services departments of nine sovereign governments has been achieved.

The new Commission will continue the difficult task of taking the health system from “very good” to “even better”.

- 1 Van Der Weyden MB. The Bundaberg Hospital scandal: the need for reform in Queensland and beyond [editorial]. *Med J Aust* 2005; 183: 284-285.
- 2 Australian Government Department of Health and Ageing. Australian Health Ministers agree on new safety and quality measures. July 2005. Available at: <http://www.health.gov.au/internet/wcms/publishing.nsf/Content/health-mediarel-yr2005-jointcom-jc013.htm> (accessed Oct 2005).
- 3 Australian Council for Safety and Quality in Health Care. 10 tips for safer health care. What everyone needs to know. A guide to becoming more actively involved in your health care. Canberra: ACSQHC, 2003. Available at: <http://www.safetyandquality.org/articles/Publications/10tipsinbox.pdf> (accessed Oct 2005). □

It's time to plan our future health system

Peter M Brooks

Executive Dean (Health Sciences), University of Queensland, Royal Brisbane Hospital, Herston, QLD 4006. p.brooks@mailbox.uq.edu.au

TO THE EDITOR: Van Der Weyden is to be congratulated on his editorial about the Bundaberg Hospital scandal.¹ He rightly points out that, although these issues have surfaced now in Queensland, the whole of the Australian health system is currently like a time bomb, with other disasters waiting to happen. However, the current health workforce shortage, which underlies many of the problems facing the health system, is not going to be solved by creating more of the same. There needs to be a radical rethink of how we deliver services in different ways, with different types of health practitioners, such as physician assistants, nurse anaesthetists and a range of other health professionals — many of whom already practise in other countries. The editorial did not emphasise, however, the importance of creating “partnerships” between Queensland Health and the universities. The concept of the professor/director, so common now in the southern states of Australia, has not been

embraced in Queensland. There are significant opportunities to work together to improve health worker training in the future if this partnership is embraced.

There is also an urgent need for an open debate on what Australians want from their health system and how much they are willing to pay. These are difficult issues and, although other countries such as the United States (Oregon) have attempted to have this community debate in the past, no clear solutions have been forthcoming. The current issues in Queensland, the publication of the Queensland Health Systems Review by Mr Peter Forster² and the Productivity Commission's Position Paper on Australia's Health Workforce³ provide a great opportunity for the government and the community to sit down and have that debate, so that we can plan an appropriate health system for the future.

1 Van Der Weyden MB. The Bundaberg Hospital scandal: the need for reform in Queensland and beyond [editorial]. *Med J Aust* 2005; 183: 284-285.

2 Queensland Government. Queensland Health Systems Review. 30 Sep 2005. Available at: <http://www.healthreview.com.au/> (accessed Oct 2005).

3 Australian Government. Productivity Commission. Australia's Health Workforce. Position Paper. 29 Sep 2005. Available at: <http://www.pc.gov.au/study/healthworkforce/positionpaper/> (accessed Oct 2005). □

A half-day each month for quality and safety activities

R James Aitken

Surgeon, Sir Charles Gairdner Hospital, Hollywood Specialist Centre, 95 Monash Avenue, Nedlands, WA 6090. rjaitken@cyllene.uwa.edu.au

TO THE EDITOR: Van Der Weyden calls for quality and safety for all Australians accessing health care.¹ Improving the quality and safety of health care requires clinical leadership and active participation by all staff. This will not occur until quality and safety activities are allocated protected time and considered by governments, hospitals, managers, health departments, health funds, clinicians and all others to be equivalent in value to clinical work.

Airline pilots, to whom doctors are often compared, spend a day a month on safety training. The recently revised consultant contract in the United Kingdom provides a minimum of a half-day per week of protected non-clinical time for audit, quality and safety, governance and similar activities.² These paid, protected sessions are equivalent to those spent in theatre, outpatients or other clinical work. There is no similar protected, non-clinical time in the Australian health

service. Australia's current trainees, the consultants of tomorrow, will expect such activities to be included within their safe working hours' allowance.

The clear message is that time allocated to quality and safety is less valuable than that spent maintaining clinical throughput. The shortage of doctors over the medium term means there will be pressure to maintain the clinical service. This will inevitably result in a further reduction in the time spent on quality and safety.

A suitable start would be for every Australian hospital to stop clinical activity for one half-day per month to provide protected time within working hours for quality and safety activities. This need not be expensive. For example, many hospitals close for a prolonged period over the summer and by reducing this closure by 1 week, and spreading the days gained as quality and safety sessions over the year, hospitals will work exactly the same number of days. By rotating this half-day each month, the impact would be spread evenly. If coordinated, this would facilitate multidisciplinary, inter-hospital and even area-wide meetings.

The cost of quality and safety activities is a short-term necessary inefficiency that is an investment for a long-term gain. The government's failure to provide the paid, protected time for this necessary inefficiency clearly indicates that its interest in quality and safety ceases when a cost is involved.

1 Van Der Weyden MB. The Bundaberg Hospital scandal: the need for reform in Queensland and beyond [editorial]. *Med J Aust* 2005; 183: 284-285.

2 National Health Service. Consultant Contract. Available at: http://www.nhsemployers.org/docs/consultant_contract.doc (accessed Oct 2005). □

Re-inventing the wheel?

Megan A Bohensky,*
Joseph E Ibrahim,† David L Ranson‡

* Research Officer, † Consultant and Head of Research, Clinical Liaison Service, ‡ Deputy Director, Victorian Institute of Forensic Medicine, Monash University, State Coroner's Office Victoria, 57-83 Kavanagh Street, Southbank, VIC 3006. meganb@vifm.org

TO THE EDITOR: Van Der Weyden highlights the need for a health system with a focus on patient safety that is open, transparent and connected to local communities and clinicians who are able to make decisions about health care delivery.¹ The editorial refers to the Bundaberg and other Australian hospital "scandals" that went undetected by medical boards, the clinical governance structures within each hospital, and sentinel

event reporting processes. However, no consideration is given to the role of the Coroner's Office, where a formal structure is already in place for reviewing particular deaths associated with health system failures.

The role of the Coroner's Office in these incidents is worth reflecting on, as the Coroner is external to the health system, has the capacity to review reported hospital deaths, and can address the concerns of doctors and nurses as well as the family members of the deceased. The case involving Dr Patel begs the question of whether this system of judicial investigation was utilised. If not, how could the system improve to encourage the disclosure of internal problems in our hospitals?

One option to improve the system has been developed by the Clinical Liaison Service. This service was initiated by the State Coroner's Office in Victoria to involve clinicians in a regular review of deaths in hospital as a means of identifying potential instances of hospital system failures.² Through a system-based approach, issues of communication failure, unclear work protocols and a lack of supervision for junior doctors have been highlighted. These issues are fed back into the health care community through coronial findings and the service's quarterly publication *Coronial communiqué*.³

Improving the clinical input into judicial investigation may, by encouraging clinicians' trust in the system, remove barriers to identifying system issues relevant to health care. Currently, Victoria is the only state or territory in Australia where clinical input is a routine part of the Coroner's review process. Although the Coroners' jurisdiction only extends to instances resulting in death, their findings are often far-reaching and garner public attention and support.⁴

Another initiative to improve this system is the development of the National Coroners Information System (<http://www.vifp.monash.edu.au/ncis/>). This database provides a national repository of information about reported deaths, and has the potential to be used as a health and injury surveillance system to inform policy for death prevention.

As noted by Morton, system analysis requires a process that is just and transparent.⁵ The coronial process inherently comprises both of these features through its legislative structure. It is conceivable that a team of clinical reviewers within the Queensland Coroner's Office could have identified issues at Bundaberg earlier on.

Our health system unquestionably requires a better strategy for preventing the patient deaths that occur every day. The

Clinical Liaison Service and the National Coroners Information System are helping the legal and health care community to work towards identifying and preventing incidents that compromise patient safety.

- 1 Van Der Weyden MB. The Bundaberg Hospital scandal: the need for reform in Queensland and beyond [editorial]. *Med J Aust* 2005; 183: 284-285.
- 2 Bohensky M, Ibrahim JE, O'Brien AJ, et al. World without borders: integrating clinical perspectives into the coronial jurisdiction in Victoria, Australia. *Med Law*. In press.
- 3 Clinical Liaison Service. Coronial communiqué. Melbourne: Victorian Institute of Forensic Medicine and State Coroner's Office of Victoria. Available at: <http://www.vifm.org/communique.html> (accessed Oct 2005).
- 4 Bugeja L, Ranson D. Coroners' recommendations: do they lead to positive public health outcomes? *J Law Med* 2003; 10: 399-400.
- 5 Morton AP. Reflections on the Bundaberg Hospital failure. *Med J Aust* 2005; 183: 328-329. □

1928 Royal Commission "The fatalities at Bundaberg"

William Coote

Chief Executive Officer, General Practice Education and Training, GPO Box 2914, Canberra, ACT 2601. billcoote@netspeed.com.au

TO THE EDITOR: Lightning can strike in the same place twice, or at least untoward medical deaths can. Today, I was looking through the *Medical Journal of Australia* of 7 July 1928 and was amazed to find the report of a Royal Commission entitled "The fatalities at Bundaberg".¹

It is a tragic story. On 27 January 1928, 21 children received an injection from "an india-rubber capped bottle purporting to contain diphtheria toxin-antitoxin mixture". Eighteen of these children became ill during the night of 27 January. Eleven died on 28 January, and another child died on 29 January. The Royal Commission found that the bottle had become "contaminated with a pathogenic staphylococcus" when it was being used the previous week. The bottle had been stored at room temperature during the intervening week.

The Royal Commissioners made a series of recommendations including "biological products must be distributed in bottles or ampoules of clear glass", "antiseptics should be included in bottles that might be used on several occasions" and, if this was not possible, bottles "should be used immediately on opening and any remaining product discarded".

One similarity with the current inquiries into Dr Patel's activities is the complicated and confused lines of responsibility and accountability. The immunisations were administered under a Bundaberg City Coun-

cil program. The Council was implementing immunisation policies of the Commissioner of Health for Queensland. The injections were given on the Council's premises by a private doctor on contract to the council. The product was manufactured by the Commonwealth Serum Laboratories in Melbourne and supplied to the council by a private firm in Brisbane.

1 The fatalities at Bundaberg. Report of the Royal Commission. *Med J Aust* 1928; 2: 2-30, 38-63. □

Moving forward

Martin B Van Der Weyden

Editor, The Medical Journal of Australia, Locked Bag 3030, Strawberry Hills, NSW 2012.
medjaust@ampco.com.au

IN REPLY: The letters in response to my editorial¹ reflect concern within the medical community about the continuing saga of safety in our hospitals.

Clarke et al call again for public report cards on individual surgeons. It is difficult to see what positive outcomes such an exercise would have on systemic safety — it is likely to encourage a culture of individual blame and to detract from probing system factors, an outcome not favoured by experts in safety.^{2,3} Despite this, surgeons in Australia are at the forefront of performance monitoring, as exemplified by the Western Australian Audit of Surgical Mortality.⁴ Indeed, the Royal Australasian College of Surgeons is introducing a similar program across Australia and New Zealand,⁵ and its leadership in this matter is to be applauded. Evans and her colleagues and Morton reiterate the dire need for a compre-

hensive and continuous measurement system for clinical outcomes and the central role of clinical governance. The importance of these requirements is echoed in the use of the words “measurement” or “monitoring” 11 times and “governance” five times in the preceding letters.

Aitken raises the important point that improving safety and quality comes at a cost and requires dedicated time. He also draws attention to the recently introduced protected, non-clinical time for consultants in the United Kingdom, a development that deserves serious consideration by health departments Australia-wide.

That medical manpower shortage is at the root of the Bundaberg Hospital scandal is emphasised by Brooks, but he calls for a debate about the bigger picture: a radical rethink of what we want from our health system and who should be the providers. Such a debate is usually side-stepped by our politicians, but the recent Productivity Commission report on Australia's health workforce⁶ may force the issue.

Finally, Barraclough enumerates the achievements of the Australian Council for Safety and Quality in Health Care (ACSQHC). As acknowledged in the recent review of the ACSQHC,⁷ the Council's key achievements have been in raising safety issues among clinicians and the public, producing a bevy of quality policies, and focusing on systemic causes rather than individual blame for medical mishaps. The total funding allocation to the Council over its 6½-year term was \$55 million.⁷

However, the purpose of my editorial was not to dwell on these achievements, but to draw attention to the lack of a compre-

hensive system for gathering data on defined clinical outcomes — a necessary tool if we are to achieve meaningful safety and quality improvement. Without these data, we have no way of knowing whether the activities of the ACSQHC have made any difference to safety. As the Royal Australasian College of Physicians noted in its submission to the ACSQHC review: “clinicians do not have ready access to meaningful information about clinical practice”.⁷

In short, we need to resolve what we want to know and why we want to know it, and then to measure it locally, state-wide and nationally. Measuring progress and demonstrating improvement are potent forces for change. But it all depends on the availability of robust measurements.

1 Van Der Weyden MB. The Bundaberg Hospital scandal: the need for reform in Queensland and beyond [editorial]. *Med J Aust* 2005; 183: 284-285.

2 Bates DW, Gawande AA. Errors in medicine: what have we learned. *Ann Intern Med* 2000; 132: 763-767.

3 Leape L, Berwick DM. Five years after To Err is Human: what have we learned? *JAMA* 2005; 293: 2384-2390.

4 Semmens JB, Aitken RJ, Sanfilippo FM, et al. The Western Australian Audit of Surgical Mortality: advancing accountability. *Med J Aust* 2005; 183: 504-508.

5 Thompson A, Stonebridge PA, Spigelman AD. Surgical accountability: a frame work for trust and change [editorial]. *Med J Aust* 2005; 183: 500.

6 Australian Government. Productivity Commission Position Paper. Australia's health workforce. Sep 2005. Available at: <http://www.pc.gov.au/study/healthworkforce/positionpaper/healthworkforce.pdf> (accessed Oct 2005).

7 National arrangements for safety and quality of health care in Australia. The report of the Review of Future Governance Arrangements for Safety and Quality in Health Care. Paterson R (chair). Jul 2005. Available at: [http://www.health.gov.au/internet/wcms/publishing.nsf/Content/2D1487CB9BBD7217CA256F18005043D8/\\$File/Safety_and_Quality.pdf](http://www.health.gov.au/internet/wcms/publishing.nsf/Content/2D1487CB9BBD7217CA256F18005043D8/$File/Safety_and_Quality.pdf) (accessed Oct 2005). □