Health reform – through the looking glass

Prof Bruce Barraclough AO has had a distinguished career in medicine with a particular focus on breast and endocrine surgery. Amongst many professional activities, Prof Barraclough is the President of The International Society for Quality in Health Care, Chair of the Board of the NSW Clinical Excellence Commission, Medical Director of the Australian Cancer Network, a member of the NSW Health Care Advisory Council and Associate Dean (Planning) University of Western Sydney Medical School. Prof Barraclough is a Fellow of the Royal Australasian College of Surgeons, a Fellow of the American College of Surgeons and an Honorary Fellow, Royal College of Surgeons of England.

In 2003, Bruce Barraclough was created an Officer in the Order of Australia for services to medicine as a surgeon, to medical education, particularly the development of high-level surgical training facilities, and to the community through fostering improvements in the delivery of safe, quality healthcare in Australia.

It is an honour and a pleasure to be asked to be your guest speaker tonight.

As most of you know, I have been involved in promoting safer and higher quality health care over the past decade. Tonight I will say a few words about health reform – however you might define it. I will use some thoughts of my own and the ideas of others, particularly my colleagues Jeffrey Braithwaite and Enrico Coiera at the Australian Institute of Health Innovation at the University of NSW and the work of Jeremy Sammut, of the Centre for Independent Studies.

Why "through the looking glass"?

The Oxford English Dictionary defines "looking glass" as a mirror, being or involving the opposite of what is normal or expected and gives examples such as "looking glass land" or "looking glass logic"

To those of us involved in health care and health care reform over many years, the health system functions by way of looking glass logic, in a looking glass land. The health reforms much publicised by the Australian Government have this feel to them. Political rhetoric aside, it seems that we are not going to have a single funder for health care. Multiple funding sources continue, the blame game will not end, and the proposed local boards will be advisory, not governing boards and may not have local doctors or nurses as members. The new health areas will be based on local geography rather than the efficient linking of specialist services and primary care across the state.

The e-health record

Despite much work by the National E-Health Transition Authority (NEHTA), the person-controlled e-health record is still "just around the corner" where it has been for some years (maybe mid-2012). The promise of greater safety and better quality of care that this might bring does not appear to be a "core promise" in the near future.

All of us however, whether we are patient or provider, will have a unique identifier. This legislation was passed in the dying hours of the last parliament. Big Brother is indeed watching over us.

The National Broadband Network

The National Broadband Network (NBN) promised much for the rapid exchange, analysis and streaming of large amounts of complex information and for telemedicine uses, but considerable doubt exists about whether the NBN will ever eventuate. The potential for linking individuals with their medical adviser, whether nurse, general practitioner or specialist using telemedicine, is enormous, particularly for those in remote and rural areas. Such systems have been trialled successfully, but are not yet in widespread use.

Some 5 plus years ago, CSIRO linked Katoomba and Nepean hospitals via the high band width fibre-optic cable laid along the rail line linking those two places. Junior, non-specialist doctors at Katoomba could receive guidance from senior people at Nepean Hospital. High-tech cameras and audio equipment allowed those at Nepean to see the whole of the Emergency department at Katoomba and clearly see and hear what was going on, to make diagnoses by watching the patient being examined, clearly able to see the skin colour, rashes, deformities etc, as well as the x-rays, ECGs, monitors and notes and were able to converse with doctors and patients – real specialist care at a distance when needed.

Before long, the staff at Katoomba wanted VICCU, a virtual intensive unit, on-line all the time (in spite of some medico-legal risk) because of the sense of security it gave them in having someone more knowledgeable to ask, rather than having the system operational only when it was thought a consultation was necessary

Other possibilities

Many other possibilities open up when "broad band" and appropriate health IT platforms are available. The virtual presence of a knowledgeable mentor from somewhere else in the world when one is operating for a rare or complex problem is just one. The NBN is important for progress in health care safety and quality.

The use of "second life" is another IT application where one can be linked with others in a particular virtual environment. In second life you are represented by an avatar – mostly looking fitter and younger than we are. My colleagues at Imperial College in London are investigating second life as an educational tool. Nurses have been introduced to their next job using architecturally exact, virtual replicas of the hospital they will work in. They can walk through, be shown the sterile areas, practice scrubbing, gowning, gloving, unpacking instruments etc and practice virtual team work in the operating room.

Mobile phone technology

Mobile technology can also improve care. Scientists of the Australian e-Health Research Centre – a joint venture between the Queensland Government and CSIRO, whose Board I chair, are working with clinicians and with Nokia mobile technology to improve cardiac rehabilitation. In Queensland, only some 16% of post-cardiac-event patients attend for rehabilitation after discharge from hospital. Rehabilitation in the home is made possible with these devices linking patient and nurse or doctor for reassurance or education via voice or video conference, monitor physical activity and pulse rate and seem to be better accepted, but equivalent to, hospital-based rehabilitation. A really exciting future but, with much of this health IT-enabled future based on the presence of enough band width.

What is happening about patient safety?

Because the Medico-Legal Society of NSW has a vital interest in health care safety and quality, I would like to share with you some information about health care safety and quality; and, in so doing, build up a multi-dimensional picture of where we are and where we are going in this aspect of health care.

Essentially, *safety* is about not being harmed by care, while *quality* has a number of dimensions, including safety. Safety is that dimension of quality that Prof Charles Vincent, a well-regarded Professor of Organisational Psychology working in safety and quality, has shown to be most valued by patients and their families – above all other aspects of quality.

The other dimensions of quality include access, patient-centredness, appropriateness, efficiency and effectiveness. Thinking about safety in any health system across the world is a little like trying to understand climate change – complex and incomplete data with multiple variables that are not well understood – although we do know much more than 10 years ago and we are improving. We know that errors and adverse events associated with care are unacceptably high: approximately 10% of all

admissions, with 1.2% associated with major disability and 0.4 - 0.8% with death, although this number is 5 – 10% in developing countries. If there are approximately 230 million major operations performed around the world each year, there are over 1,000,000 associated and unnecessary deaths – a major public health issue. People often ask, "What is the death rate around here?" The answer is – "same as everywhere else – one per person". We need to be careful how we communicate these statistics

Appropriateness

With regard to appropriateness: in the USA, Beth McGlynn, working at the Rand Corporation, showed that for eight major diseases where there are well accepted evidence-based guidelines, only 50% of people received recommended care. There is no reason for this not to be similar in Australia. Unfortunately, human nature being what it is, it seems that individual autonomy, for well-trained and well-meaning doctors and patients, trumps evidence any day – and this is in a so-called first world health systems like ours. The situation in relation to health care safety and quality in poorer countries is worse. WHO data shows that patients in developing countries may have a 20% times greater chance of infection than in advanced health systems. Approximately 50% of injections in South East Asia are unsafe due to syringe re-use and lack of proper sterilisation. More than 70% of the world's counterfeit and substandard drugs are accounted for in developing countries.

Leadership

In all health systems, like other complex industries, the answer lies in effective leadership, adequate resources, system re-design and appropriate regulation. Many of these issues were very clearly addressed by Peter Garling SC, in his excellent 1,000-page "Report of the Special Commission of Inquiry into Acute Care Services in NSW Public Hospitals". He particularly identified problems generated by the schism between the burgeoning bureaucracy and the very stressed professional workforce.

Access

Let me say a few words about access. The access statistics for acute care, whether for emergency departments or for surgery, are headlined almost daily in the press. The problem is that overcrowded public hospitals do not have enough beds to properly care for older and sicker patients who require hospital care. This is largely due to the success of "prevention" efforts. As a nation, we are growing older but I suspect not "growing up". No matter how good our life expectancy is, and it is good – almost 84 for women and 80 for men – one of the top three of all nations, we will still spend up to 90% of our life-time health dollars in the last two years of life. We are just delaying the inevitable use of resources.

Twenty five years of nationwide cuts to the number of acute public hospital beds with rising demands from an aging population and with improved technology and drugs to allow more to be done, means that few public hospitals can operate at the safe 85% occupancy level. Many function, if that is the right word, at over 100% occupancy. 41% of emergency patients requiring unplanned admission wait for a bed and 81% of them, more than 8 hours, up by 30% since 2004. 1 in 3 (2 million) patients wait longer than clinically recommended for assessment and treatment. Fewer patients with conditions classified as urgent are seen within the recommended time of 30 minutes, than a decade ago.

Where has the extra money gone?

Over the past decade, expenditure on public hospitals has gone up 58% and activity by only 28%. Where has the money gone? Tony Morris QC, former head of the 'Dr Death' inquiry in Bundaberg, estimated that only 20% of Queensland Health's 64,000 strong workforce is a doctor or nurse. The bureaucracy however, is healthy. We are closing beds to open desks.

In 1983 Australia had 6.2 beds/1,000 population; in1990 – 4.8; in 2000 – 4.0; in 2007 – 3.9 (but only 2.5 in the public sector) – a fall of 60% in acute public beds/1,000 from 1983. Certainly we can do more for people out of hospital and by day surgery – (now 75% of all surgery) as well as day of surgery admission, but the predicament we find ourselves in is due to a lack of resources – beds and money – at the sharp end. Our public acute beds are only two-thirds of OECD average – we are just about at OECD average when we add the private beds; but the waiting times and waiting lists in the headlines are not of those using the private sector. If public beds/1,000 were to be increased to OECD averages per 1,000 population, we would need at least a further 7,000 beds and maybe twice that number, depending how we count the contribution of the private sector. It is not going to happen any time soon, even if the Coalition wins the election and actually builds the promised 2,800 beds over the next four years – just the planning will take up much of that time. So those stretched altruistic people providing care in our public hospitals just better get used to it.

Adverse events

Let me revisit adverse events – the harm and problems arising from errors, slips, lapses, latent errors, work-arounds etc. Our health workforce of doctors, nurses and allied health personnel are very well trained technically, have great medical knowledge and skills and are in demand across the world – so why do we have all these, what the press describe as 'blunders' or 'stuff-ups'? The complete medical professional is armed with a number of competencies. These include the medical expertise, technical expertise and clinical judgment (or decision-making) that I have just referred to in glowing terms, but they also need to have the competencies of communication, professionalism, health advocacy, collaboration (teamwork), management and leadership, scholarship and teaching.

Contrary to popular belief, we are not usually found wanting in relation to medical or technical expertise – sometimes a lack of judgment – but most often in relation to the "softer", non-technical skills/competencies. Some 70% of all adverse events (harm to patients) is associated with communication problems, whether from inadequate communication of policy and process or in conversation, writing, planning, briefing, teamwork or interruptions. Enrico Coeira has shown that clinical interactions in Australian emergency departments are interrupted 40% of the time. We as humans can maintain approximately 7 things in our mental 'to do' list at any one time. Therefore, interruptions that scramble our mental 'to do' list in the fraught circumstances of an emergency department are an accident waiting to happen. Good communication is not easy. What we mean to say is often not heard in the way we might wish.

This reminds me of a story about a Queensland farmer who drives to a neighbour's farmhouse in his ute and knocks on the door.

A boy, about nine years old opens the door. "Is your dad home" asks the farmer.

"No mate, he isn't here; he went to town."

"Well is your mother here?"

"No, she went to town with dad."

"How about your brother, Howard? Is he here?"

"No mate he went with mum & dad."

The farmer stands there for a few minutes, shifting from one foot to the other and mumbling to himself.

"Is there anything I can do for you? I know where all the tools are if you want to borrow one, or can I give dad a message?"

"Well" says the farmer uncomfortably, "I really wanted to talk to your dad. It's about your brother, Howard, getting my daughter Susie pregnant"

The boy thinks for a moment.

"You would have to talk to dad. I know he charges $500 for a bull and $50 for the pig, but I don't know how much he charges for Howard."

Improvement

Universities and Royal colleges, professional societies and associations are at last realizing – as airlines, mining and nuclear power industries realised some years ago – that additional effort needs to be put into enhancing education for the workforce of these softer, non-technical competencies of communication, teamwork, leadership, professionalism etc. This education is now happening, not just in Australia, but globally, led by the WHO World Alliance for Patient Safety. I have had the privilege of chairing the WHO Working Party that produced a *Patient Safety Curriculum Guide* for medical schools which has been accessed by hundreds of medical schools worldwide. I also served on the WHO team that produced the *Safe Surgery Saves Lives Checklist* that is now being introduced in 25 countries and in Australian hospitals. This work was led by a United States surgeon, Atul Gawande, whose three books, *Complications*, *Better* and *The Checklist Manifesto* make health-care safety and quality accessible to the community.

Competence is one thing, but the measurement, auditing and benchmarking of performance and proficiency is another. Appropriate system redesign requires transparent audit, analysis and feedback of appropriate and useful data – we are only just starting down this road.

Conclusion

The issues I have addressed tonight are not "secret doctors' business" but are well known in the "health" community, by bureaucrats and by governments. It would be great if the upcoming Federal and State elections could deliver us governments with the courage, commitment and leadership skills to act on, rather than 'spin', these problems. If such a government existed, they would spend the money to build the beds, provide the IT infrastructure, collect and analyse the data, measure and benchmark performance and proficiency and correct systemic problems. They would provide support for widespread innovation in the public and private sectors, including new delivery models and funding changes which might include health vouchers – where the money follows the patient. Such a government might also have strategies to deliver greater levels of growth and GDP to pay for all this – not an impossible ask because, with better health care we get a healthier, happier and more productive population, who will produce the required resources.

Mr. Chairman, I will leave you with that wish: we can all dream when we are using a looking glass!