

# Our public health system: an accident waiting to happen?

Hans Peter Dietz

Surely everyone working in clinical medicine these days must at times feel frustrated by ever-increasing amounts of red tape. Those responsible seem quite uninterested in our plight, so we let off steam in conversations with colleagues and do nothing further. The most optimistic among us hope for a change in local management or state government, even though our plight is not limited to one area health service, one state, nor even one nation state.

Every now and then, we become aware that medical doctors are not the only victims of this continuing trend. Just talk to someone working in childcare, or surf lifesaving, or social work, or someone importing live plants. It's the same everywhere. We should by now be aware that we're all victims of a society that is hooked on regulating everything.

Let's consider our plight in light of recent research on the behaviour of complex systems. Such bodies as the Sydney West Area Health Service, the National Health and Medical Research Council (NHMRC) and the New South Wales Medical Board are examples of complex systems and legitimate subjects for study.

Crawford Holling is a retired ecologist who made his name in the 1980s with work on the adaptive cycle of growth, collapse and regeneration of forest ecosystems. His insights have been applied to many other complex systems, both natural and human-made. In 2001, he summarised his main theories in a review article that is fairly accessible to the layperson.<sup>1</sup> Rather unexpectedly, these theories offer a plausible explanation for the difficulties we all face in our daily professional endeavours.

Any complex system starts out small and simple. Over time, it tends to increase in complexity in response to changing circumstances. Flows of energy, material and information increase, and the system grows. We usually assume that this process can continue forever — a presumption on which our entire society is based.

The study of natural complex systems teaches that such assumptions are unrealistic. Holling explains why this is so, and what to expect instead. Increasing complexity is a response to changing conditions, whether in a forest or a human-made system. The result is a system that fulfils its potential to a greater and greater degree, and that exhibits ever-increasing interconnectedness. This is often the claim behind arguments for mergers in business or state services: increasing complexity and interconnectedness will deliver synergies, allowing improved services and savings at the same time.

It would be odd if such advantages were obtained at no cost. And that realisation is what made Holling's career. He realised that ever-increasing efficiency, complexity and interconnectedness reduce another crucial parameter: resilience. Resilience is the capacity of a system to cope with and survive sudden changes in external conditions. For the forest, that might be a drought, bushfires or a new pest. For our health system, it might be population shifts, reductions in funding, new technology, industrial disputes, a global pandemic or a major natural disaster.

We all intuitively perceive that there is something seriously wrong with those highly complex, overly bureaucratic structures we deal with every day. There is something wrong when I have to

## ABSTRACT

- Our public health system, addicted to increasing centralisation and regulation, is pushing our everyday work environment beyond the point of sustainability — it has become too complex.
- Like an ecosystem grown too complex to resist sudden environmental change, public health organisations have become “brittle”, unable to respond to changing conditions.
- Another bureaucratic restructuring, such as recommended by the Garling report, can only be self-defeating.
- It is time for us to design systems small enough, and therefore resilient enough, to meet tomorrow's challenges.

MJA 2009; 191: 345–346

jump up and down for almost 10 months before an overseas-trained specialist is accredited with my hospital so that she can start working “for free”. There is something wrong with an antismoking campaign that costs hundreds of thousands of dollars, only to convert the gardens around the front entrance of my hospital into one huge ashtray. There is something wrong with NHMRC application rules stipulating not just the size of an email attachment in PDF format, but also the font and its size, header content, distance of header from page margin, font and size of the header, and the font size of the application number in the header's top right-hand corner.

But, of course, that excess of centralised control is there for a reason. It's supposed to make things better — to protect us from incompetent or dangerous doctors; to get people to live healthier lives; to allow for faster processing of grant applications; to protect patients from unscrupulous researchers. And, up to a certain point, it makes good sense to regulate the employment of overseas-trained doctors and clinical research, just as it makes good sense to regulate road traffic. It makes good sense as long as there is a positive return on investment — that is, as long as the opportunity cost of a given measure is outweighed by gains in service quality. However, I'm quite certain that systems such as the NSW Medical Board, the NSW Department of Health, our research governance structures and our area health services have not become more effective lately.

It is a feature of complex systems that, having reached their peak, the expected return on investment for a given increase in complexity may in fact become negative. This phenomenon is a sure sign that systems have reached and passed their peak, and have become “brittle”. For an indication of what brittleness means in the context of our highly centralised public health system, see a recent story in the *Sydney Morning Herald* reporting a power failure at the Cumberland Data Centre that resulted in a major disruption to clinical services at over 100 hospitals.<sup>2</sup>

But let's consider the bigger picture. What happens to natural complex systems that become brittle? Let's say it's an old-growth forest ecosystem, converting sunlight and nutrients into biomass at maximum efficiency. Potential is being fulfilled, and interconnectedness is at a maximum, but there is a downside: levels of

resilience are falling all the time. The system has become rigid and brittle, “an accident waiting to happen” as Holling puts it.<sup>1</sup> It will fail sooner or later, it’s just a question of time and a suitable trigger.

Surely you can fill in your own favourite trigger — a major financial crisis, worsened by the globalisation of financial markets; a pandemic promoted by the sheer scale of modern air travel; a major breakdown of information technology (IT) systems due to a virus spreading throughout the Internet; or whatever. It doesn’t have to be global thermonuclear war. Many structures in our professional lives, in our society in fact, are rigid and brittle. They are accidents waiting to happen, and our desperate attempts at fixing them may be worse than useless because they’re likely to result in negative returns on investment.

The recent Garling report<sup>3</sup> is an excellent example of this phenomenon. Garling supports greater reliance on centralised IT and advocates the creation of a multitude of committees, agencies and new positions, such as a Clinical Innovation and Enhancement Agency (recommendation 67); a Bureau of Health Information (recommendation 75); a NSW Institute for Clinical Education and Training (recommendation 36); new Executive Clinical Director positions (recommendation 137); and clinical support officers for doctors in public hospitals (recommendation 40). The report suggests the creation of a centralised statewide Children and Young Peoples’ Health Authority (recommendation 9) and a statewide central radiology service (recommendation 114). It suggests an “annual performance review for each employed or contracted doctor” (recommendation 21) and a “Just Culture” program to combat bullying (recommendation 42). To top it all off, “NSW Health [is to] implement a statewide policy ensuring uniforms or vests are worn by each health professional, identifying in large print the role of the health professional” (recommendation 62). The word “decentralisation” is not found anywhere in the 64 pages of the report’s overview,<sup>3</sup> but I confess that I have not read the full report, in itself a glaring example of excessive, self-defeating complexity.

More bureaucracy, not less, is supposed to get us out of the mess — more centralisation, regulation, control and complexity! The result will be more red tape, more pressure, more frustration, more problems, not less. I quote from section 1.30 of the report’s overview:

The clinical leaders of the units ... must sign off on all data relating to safety and quality issues in their units: such as infection rates, and the happening of adverse events, and display their results proudly and publicly.<sup>3</sup>

Isn’t this marvellous? We’ll be so proud to display details of our latest maternal death, and patients will love it too.

Sure there are deaths on our roads, but that’s not enough reason to set the speed limit at 30 km/h on motorways, is it? Sure there are incompetent and criminal doctors and researchers, but is that enough reason to kill off clinical research or to stop the importation of overseas-trained doctors during a workforce shortage? Risk can never be avoided completely in all these societal activities, not without shutting them down altogether, and a culture of “risk aversion at all cost” has to be resisted. Certain risks simply have to be accepted as unavoidable.

It’s time to opt for less regulation rather than more, for smaller, more resilient systems, even if they’re somewhat untidy. It’s time to give state medical boards more freedom, not to replace them with a politically controlled federal monstrosity. It’s time to dismantle area health services and hand back responsibilities to those at the

coalface, not for a federal takeover and another bout of increasingly desperate centralisation. It’s time to streamline and simplify ethics approvals and grant application processes. It’s time to design simpler systems to allow for greater resilience, because that’s what we’ll need to ride out the shocks of the next decade. Whatever they will be.

### Competing interests

I have received honoraria as a speaker from General Electric (GE) Ultrasound, Sydney, and American Medical Systems (AMS), Minneapolis, and have acted as consultant for Continence Control Systems, Sydney, and AMS. I have also received equipment loans from GE, Toshiba and Brüel and Kjaer.

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(Received 16 Mar 2009, accepted 7 May 2009)

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