Creating the definition of the observe of the obser

acceptance to **active** foresight

HE HEALTH SYSTEM in the short-term (three to five years) and medium-term (six to 12 years) is likely to experience higher demand as the population ages. With more expensive medical technology available to prolong life we can expect costs to continue increasing. Justified wage demands by nurses and allied health workers are likely to also increase the overall costs to the health system. Citizen demands are not just in the area of expensive new medical technologies, but in a rethinking of the hospital itself, making it far greener, smarter and patient friendly.

As health continues to take up a higher percentage of GDP throughout the world, cost containment pressures are likely to increase, even as an ageing population changes the inter-generational electoral balance. But where can cost savings come from?

Reducing costs

The most likely way to reduce costs is to enhance the prevention health model – create a healthier society so the pressures on the health system, particularly the hospital system, are reduced. The alternative is to discount the future and dramatically limit access via rationing (all wait) or adopt the inequity model (rich get in first, others wait). Prevention as a new health world view stems partly from sage advice of the past – a stitch in time saves nine, an apple a day keeps the doctor away, wash your hands, and look both ways before crossing the street – and from public health pressures that understand that reckless individual behaviour leads to overall cost increases for all. Prevention does work: in Australia anti-smoking public education and legislation has prevented more than 17,000 premature deaths; and the \$176 million that Australian governments have invested in tobacco control in the past three decades has delivered \$8.6 billion in economic returns.

However, resistance to the preventive society remains, largely as the inner story of health is based on an earlier, more paternalistic era. In one workshop at the Sunshine Coast in Australia on 'Creating Health Partnerships', the common meme was, "Why should I take care of my health? Joh said she'll be right." Joh in this case was the former Premier of Queensland, Joh Bjelke-Petersen. This was the feudal patriarch telling citizens to trust in him and his model of growth, and everything would turn out fine. However as citizens queue for knee replacements and physicians tell them that they need to lose 30 kilograms for more than temporary relief, it is clear that "she won't be right." Globally, for many, the story is that of passive acceptance not active foresight. Major changes are needed now or the future will be bleak. The old story has hit the wall of the new realities. We need a new story. And a new health system based on this story.

The problem has been the simultaneous (in many parts of the world) realisation of a historical Utopia - food abundance - with high degrees of inequity. Families with high work pressures tend to reduce stress through high consumption of fatty foods. Indeed, social researchers have discovered a direct correlation between wealth and fatness. Poorer areas do not have access to fresh fruit and vegetables and are inundated by fast food outlets. This means fatty food, along with cigarettes washed down with beer, topped with watching television/web browsing and then no time for inner or outer exercise. Higher work pressures make prevention illusory. Even if there is foresight, the collective inner story is that of Sisyphus with blame going to the 'pollie' in Australia or the 'evil' and 'greedy' corporations in other parts of the world.

The system, inner and outer, individual and collective, has to transform or it will collapse over time.



PROFESSOR SOHAIL INAYATULLAH

Tamkang University, Taiwan and the University of the Sunshine Coast, Australia.

25

ne Health Advocate December

"the patient will see you now". Of course, a shift from medical expert to citizen could be dangerous as self-diagnosis has obvious limits. Finding a prama (balance) would be critical – that is, deep dialogue between stakeholders and different aspects of the system.

Peer-to-peer revolution

This meme change is supported by the peerto-peer revolution. Knowledge is increasingly becoming flatter via Wikipedia and web 2.0 ventures such as Curetogether (open source health research) and CollabRX (a community of scientists and patients). In the dot com world, patientslikeme.com and whoissick.org are creating dialogical places for patients to learn from each other. Google maps now make it possible to physically locate other similar patients. Of course, while this may be a hypochondriac's dream, it does provide more information and, through social networks, emotional and informational support to patients. The web becomes another source of information to triangulate what the knowledge expert says and what the body says with what others in the social network say. Knowledge of alternative opinions can potentially be used to develop a wiser course of treatment.

The genomics map

More information via genomics also has the potential to augment the preventive world view. Already 23andme.com (and other sites such as Navigenics, DeCodeMe) can provide a basic genome map for a small fee, giving a rough idea of illness probabilities over a lifetime. Yes, there are challenges of false positives (and finding conditions without cures) but the map can hopefully become a significant technology for long-term prevention by providing advice on what behaviour one needs to avoid and what positive actions one can take.

We can anticipate in the medium term most children being given a genomics map at birth. As the child grows, an informed life health planning series of events can take place where parent, physician as a health knowledge navigator and child map out his or her life scenarios and trajectories. While initial costs will be high, tailored medicine will likely lead to cost savings as adverse outcomes will be dramatically reduced and individuals gain power over their own life trajectory.

The transparent brain

Revolutions in the brain - seeing it as transparent and flexible - also have the potential to reduce costs. The transparent brain moves the debate from anecdotal evidence to scientific visibility. Old-new social technologies, such as meditation, can lead to dramatic reductions in health costs. Extensive scientific studies tell us that regular meditators experience 87 per cent less heart disease, 55.4 per cent fewer tumours, 50.2 per cent less hospitalisation, 30.6 per cent fewer mental disorders, and 30.4 per cent fewer infectious diseases. The potential cost savings are enormous, that is, if we were all willing to meditate on a regular basis. In India, meditation has been used successfully in prisons to decrease prison violence and future re-offending.

The main point is that with the advent of the transparent brain – MRI technology – what was a philosophical debate has now become a scientific one. And it is not just that the brain is transparent but more importantly it is flexible. Individuals can learn, 'reprogram' their traumas



Prevention as the new world view

Prevention as a new world view is possible even if OECD nations currently only spend three per cent of their health budget on prevention. We need to make the transition from strategy as the operating world view (short-term competitive gains with long-term collective losses), to health (how to have a balanced personal, organisational and global system). This is what the Indian philosopher PR Sarkar calls the prama system. In the prama society, there is a dynamic and progressive balance between inner and outer and between social fault lines (class, ethnicity and gender), such that health equity increases over time and individuals take increased responsibility for their health futures. Like emotional and spiritual intelligence, perhaps we can consider a new form of intelligence – the health intelligence quotient.

In the preventive prama society, instead of the meme of "doctor is always right", the new meme becomes "take charge of your own health." Of course, there are limits to how far one can take charge given systemic inequity and genetic differentials. Still, empowerment leads to more empowerment, and to innovation. Virtuous cycles of health can result. The empowerment process challenges the centuries old hierarchy of God-specialistdoctor-nurse and way below, patient. Instead, a flatter world is created where patient and expert are in dialogue, finding solutions based on expertise but also based on the assumption that the patient is intelligent. This could eventually lead to the image of the patient at the centre of health care or the scenario of:



and become more objective. We can learn. Organisations can learn. They can learn about learning. The brain and even the genome are less like a fixed mountain and perhaps more like a hill allowing slow change.

City futures

Prevention as a world view is just not emerging in the health system, but in other policy arenas as well. There is a slow but important revolution going on in Australia specifically, but also cities all over the world in creating a new form of democracy called anticipatory democracy. For example, in Australia, cities and shires are moving from a roads-ratesrubbish approach to one of city design. Citizens want to reduce their footprint and create healthier, greener communities.

With increasing scientific evidence that city design directly impacts our life changes and our long-term health, city planners are redesigning for health. City design improvements include creating greener and more biodiverse spaces to enhance psychological health - bringing in light rail to reduce congestion (time spent in traffic directly relates to heart disease), changing zoning to reduce pollution (in polluted areas foetus size drops) and, of course, with climate change, rethinking population density zoning. Enhancing green spaces can also reduce drought as there is considerable evidence that the suburban/strip mall model of development blocks billions of gallons of rainwater from seeping through to replenish ground water.

Rethinking city design can greatly reduce costs over the long term. Building design is part of this revolution, creating cradle-tocradle buildings with zero emissions where there is no 'away' to throw things. Energy self-reliant buildings are on the cards. Green buildings, while costing more initially, enhance productivity. Productivity gains are estimated at 16 per cent and \$160 billion. But first, we need to transform the throwaway consumer society.

There are other tough challenges as well. These include eating far less red meat (correlated with cancer, heart problems and high carbon emissions), drinking far less beer slowing down so we can do what is most important, with purpose and clarity.

Which future?

Our most important task for the future will be learning and healing organisations, societies, nations and, indeed, the planet. The prevention prama society as outlined is focused on equity and personal responsibility using evidencebased policies and technologies. It seeks to transform our collective and inner stories.

As the current system is not financially viable nor culturally and environmentally sustainable,

It means exercising far more, eating more vegetables and fruits, using new technologies wisely, and living a life that has periods of pause during the day.

(the real costs of beer when you include the costs of water are terrifyingly high), ending our nicotine habit (bad for the planet, bad for the body, and extremely costly for the entire health system) and learning how to use wisely the new genomic and artificial intelligence technologies. More positively it means exercising far more, eating more vegetables and fruits, using new technologies wisely, and living a life that has periods of pause during the day. These pauses are the moments for rest for body and mind rejuvenation. This means something has to give – a natural evolution toward a preventive model would be ideal. If we do nothing, then we can expect either a failed health system or a two-tiered system where the rich will be non-smoking, meditating vegetarians and the poor will be drowning themselves in beer, meat and tobacco as they wait in line for the overworked doctor.

More information: You can contact Professor Inayatullah at s.inayatullah@gut.edu.au or visit the website www.metafuture.org.