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## Guest Editorial

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There are many definitions of 'public health' and for Australia a prominent one must be that of the National Public Health Partnership, which defines it as 'the organised response by society to protect and promote health, and to prevent illness, injury and disability'. This definition also make the point that the 'focus of the public health response...is the population as a whole' or subgroups within it.<sup>1</sup>

Two ideas stand out in this and so many of the other definitions of public health—that it is an *organised* response and that the target is *populations* rather than individuals. This is not to say that the public health response does not affect individuals—it does, since individuals are the beneficiaries of public health interventions. But they are affected as part of the population, or, as the draft South Australian Public Health Bill 2009 defines it, 'public health means the health of individuals in the *context* of the wider health of the community'.<sup>2</sup> Given these two ideas, law, notably through legislation, is a well-suited vehicle to support and facilitate the public health approach. Law offers an organised response, imposing requirements for instance, to act in specified ways so as to minimise public health risks, to label products as required and to comply with directions. In the guise of legislation, law also takes a population focus, where requirements apply generally and are established in the interests of the community, for example, passive smoking controls apply to all persons in restaurants, to the benefit of every person who might be exposed.

If the context of legislation is well suited to supporting and facilitating a public health approach, so is its content. Legislation has a very wide content. Most obviously, it can address the adverse impacts of a built environment through abatement orders and similar requirements. It can have a punitive aspect and impose controls and sanctions on individuals whose behaviours may present a public health risk to others. It can also change the social environments within which healthy or unhealthy decisions are made through controls that prohibit



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or limit the marketing of unhealthy products, such as tobacco, high energy foods or alcohol, thus altering the environment in which people make their choices. Legislation can also tax 'unhealthy' products or activities at higher rates, providing a financial reward for healthy behaviours. In these last two examples legislation is an expression of the public health ideal that 'healthy choices should be easy choices', insofar as healthy choices can be made easier and unhealthy choices can be made harder.

Law is, and always has been, one of the key tools of public health practice. The British Parliament's 1848 Public Health Act, often taken to be the commencement of public health legislation (although there were earlier laws), and its successors have been milestones in the progress of public health. In Australia, colonial public health legislation commenced with quarantine and local sanitary measures, crystallising in extensive acts passed in the second half of the 19th century. However, Australia's history of public health practice has also been mixed. As Buckett and Maddock outline in this issue of the Bulletin, it has often included other agendas, for example the fear of an invading 'yellow peril' expressed as a concern for national security. As public health historians have often pointed out, these fears have shaped both our laws and their administration.<sup>3</sup> Thus, our responses to epidemics were focused on the Chinese community; and our first drug laws (aimed at smoking opium) were similarly anti-Chinese and quite oblivious to the real public health issues associated with the unregulated and widely available patented and 'therapeutic' medicines. Indeed, it was anxieties about physical deterioration of the population, with its military and manpower implications, and the decline in the birthrate among Europeans, which led to 'racial decay', that appear to have driven the second wave of food and drug laws of the early 20th century. These lessons from history have important implications for the current phase of public health legislation, which comprises the past 20–25 years. It is this period that this issue of the Bulletin largely focuses on.

The period since 1985 has seen substantial interest in public health law among policymakers and the public health community. Laws that had existed largely unchanged for many decades, in some cases a century, were reviewed and replaced. This process is ongoing and, as Denniss et al illustrate, the Western Australian *Health Act 1911*, the last of the truly 'old' public

health acts, is in the process of being replaced by a radically new version. New ways of thinking have been embraced by some (but not all) Australian jurisdictions, and old public health responses grounded in 19th century sanitary origins are being replaced by more generic and versatile approaches to regulation.

Broderick's paper illustrates the range of issues that new public health legislation might address, highlighting: intersectoral action for health; more sophisticated public policy and legal strategies, including more assertive regulatory and taxation measures; greater emphasis on community engagement and awareness; the development of risk assessment methods, including health impact assessment; and the emergence of the Health in All Policies approach. Reynolds focuses on one of these issues, namely the concept of risk, contrasting it with the traditional legislative approach to public health. He argues for a new way of regulating public health informed by the idea of risk management, which reflects the direction of new legislation in both Western Australia and South Australia. Notably, this revolves around a general statutory duty to avoid harm to public health, as well as new generic offences of causing harm to public health, with substantial penalties. With it comes new and potentially uncharted responsibilities for environmental health officers (EHOs) in their role as the 'front line' of public health practitioners. In this respect, Yates canvasses the array of legislation that EHOs are expected to apply and points out that new approaches to regulating, including the move from a reactive to a proactive approach, will bring increasing resource demands. Hobby, who also considers the administration of legislation, explores the need for a systematic approach to the enforcement of public health law, arguing for a 'proportionate, consistent and transparent administration of public health legislation.'

In addition to regulating the environment, public health law has always focused on the control of infectious disease. It was this concern that was the major driver for public health law reform in the 1990s in the wake of HIV/AIDS.<sup>4</sup> While this 'epidemic' could be contained by sensible public health strategies, it illustrated the inadequacies of current public health law and identified the many ways in which laws might both assist and hinder these strategies. When considering this area, two concerns emerge: one relates to the need to protect the rights and privacy of persons who might be diagnosed with the disease, and potentially subject to controls and restrictions; and the second to persons whose

behaviours might be placing others at risk. Cameron's article critically assesses this last concern and traces the appropriateness of the criminal law to deal with these cases, exploring its effects on public health policy.

Pandemics such as a deadly strain of influenza present public health challenges on a much wider scale, heightened by our temporal proximity to the rest of the world. In the 19th century sailing to Australia took weeks or even months from most ports, and this provided a natural protection from many epidemics—today we are just hours away from most of the world. As Gostin shows, our domestic responses are, and must be, part of a global network of responses and in effect under the umbrella of the International Health Regulations 2005. Our responses and the checks and balances they envisage should be carried through in a federal arrangement that is reflected in quarantine and national emergency powers legislation at the national level, and in state and territory public health laws at the regional level. In particular, the extensive public health powers necessary to contain a pandemic—powers that might one day be used against any of us—need to be informed by the obligation to respect the rights and interests of those subject to them and applied in a manner that is proportionate to the public risk presented. New public health legislation contains 'rights principles' that public health officials are expected to take into account when applying the legislation. This is an important new field of public health law. Pelkas sets it in its historical context, exploring both the rationale behind the use of coercive controls in the first public health laws and its philosophical underpinning. She argues that 'although coercive powers to safeguard the community are undoubtedly necessary, modern approaches to public health law that favour proportionate and non-discriminatory exercise of powers have attempted to also respect individual interests.' Loff et al also consider this area, looking at regard for human rights as a proper constraint on the sweep of public health powers, and making the important point (both for rights and the effective application of public health policy) that 'human rights and public health approaches are not incompatible.'

The last 20–25 years have also seen public health practice move beyond its traditional boundaries, and public health law has followed in its wake. Most visibly, this has been in the field of tobacco control, where a range of state, territory and federal laws first passed

between 1987 and 1992 saw extensive restrictions on its marketing and promotion. The case for this legislation was compelling—tobacco-related diseases remain Australia's greatest public health problem and the one most amenable to prevention. More recently though, the incidence of obesity-related diseases has been recognised as collectively presenting another very significant public health issue. While food and tobacco are very different commodities, there are some similarities in the way both are marketed, and in the powerful vested interests that underlie this marketing and depend upon unchecked consumption for their profitability. As with tobacco, the validity of public health interventions is questioned (even by a previous federal Health Minister, who argued for 'personal responsibility' as an alternative to regulation).

Magnusson's paper on front-of-pack food labelling describes this tension and highlights the case for a population-focused, or public health, approach that draws on changes to the social environment through legislation to provide simple and clear information to help consumers make healthy choices. He sees this issue as a test case for whether or not industry will be able to convince government (wrongly in the view of most public health practitioners) that the problem lies not with unhealthy foods but with the unhealthy choices of individuals. More generally, the regulation of the food industry in the interests of preventing obesity-related disease, and potentially the regulation of alcohol as well, may well provide an interesting new field of public health law that will draw on the experience of tobacco regulation.

Law and regulation is the oldest and most significant of the tools available to public health practitioners. It also has a symbolic value—a belief in the legislated response to a public health issue is a restatement of the commitment to a collective approach, that is a focus on the population rather than on individuals, which is at the heart of public health practice. It has always been so. When John Snow decided that the Broad Street pump was the source of cholera in his part of London, he might have suggested to his neighbours that they avoid using it, implying that they ought to take personal responsibility for their health. Had their children continued to draw water from that source and become sick, he might have lectured them on parental responsibility. He did none of this. Rather, he addressed the problem at its source and advised

the council to remove the handle of the pump. Since Snow's time there have been, and continue to be, many 'pumps' that need disabling. In each case the collective approach that focuses on populations and addresses the environment (thus influencing people's actions and the way they make their choices) is the most effective one. More particularly, a supportive environment facilitates personal responsibility by making the healthy choices easier rather than harder. Law and legislation is the tool that best achieves this, and the changes and new directions described in the articles contained in this issue of the Public Health Bulletin illustrate that the discipline is alive and healthy. If the political will exists, law is always available to support improvement in public health policy.

### References

1. <http://www.dhs.vic.gov.au/nphp/publications/broch/defin.htm>
2. S. 3 [author's italics]
3. Curson P. We don't want no smallpox here: the epidemic of 1881–82. Chap 6 in 'Times of crisis (epidemics in Sydney 1788–1890)'. Sydney University Press, Sydney, 1985.
4. See Intergovernmental Committee on AIDS (Australia). Legal Working Party, Final Report. Commonwealth Department of Health, Housing and Community Services, 1992.

## Influenza A (H1N1) (swine origin): perspectives under national and international law\*

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### Background

A novel strain of Influenza A (H1N1; swine flu) spread rapidly through Mexico in April 2009 and now spans the globe. By the time the World Health Organization (WHO) was notified and responded, geographical containment was not feasible, leading the agency to call for mitigation. By June 2009 the WHO raised the pandemic alert level to a full-blown pandemic, and by 16 July the agency said that further spread, within affected countries and to new countries, was inevitable and therefore, eliminated most countries' reporting responsibilities. The first wave appears not to be as highly pathogenic as originally feared, but there is a possibility that it could evolve to become more dangerous in subsequent waves, as did the 1918 Spanish Influenza that killed some 50 million people.

Predictably, the swine flu subsided slightly in the Northern Hemisphere when the 2009 summer began, but has now experienced a resurgence. The world's eyes were focused on the Southern Hemisphere, particularly Australia, during their winter, where the swine flu rapidly spread, and where it behaved as expected—relatively mild but spread rapidly. It disproportionately burdened the most vulnerable Australians: those with co-morbidities such as diabetes, coronary heart disease and respiratory disease, and the poorest and least advantaged such as the indigenous community. Questions of social justice in Australia therefore inevitably arise.

The international outbreak of severe acute respiratory syndrome (SARS) in 2003 and the more recent Influenza A (H5N1) among birds, with limited transmission to humans, helped prepare the world for the current pandemic threat. SARS galvanised the WHO to revise the antiquated International Health Regulations (IHR) in 2005, the new version taking effect in June 2007. Governments instituted preparedness plans in response to avian influenza.

\* This article is based on Gostin 2009.<sup>1</sup>

Despite increased preparedness, it is vital that international and national public health agencies have strong powers tempered by respect for human rights. Yet so often this is not the case and the history of epidemics can be characterised as responses driven by fear and stigmatisation rather than good public health policy, and where unpopular immigrants or the poor were blamed for the spread of disease.<sup>2</sup> Australia itself has displayed discrimination in past epidemics (such as against the Chinese population during the late 19th century bubonic plague)<sup>3</sup>, so it is vital to maintain a humane and proportionate response, informed by the lessons of the past, in today's climate.

### WHO pandemic alert system

It was partly due to the rapid spread of swine flu to Australia that WHO raised the pandemic alert level to six, the highest alert level. The last full-blown influenza pandemic—the Hong Kong flu of 1968—killed about 1 million people. Ordinary flu kills about 250 000 to 500 000 people each year globally.

Since the new swine flu strain first emerged in Mexico and the United States in April 2009, it has spread rapidly across the globe. Most cases, however, have been mild and required no treatment. However, the possibility is that a rash of new infections could overwhelm hospitals and health authorities, especially in poorer countries. There is also the possibility that the virus could change and become more lethal. Influenza viruses are known to change readily. And, it is also possible it could become resistant to new vaccines that are being developed and that it could also develop resistance to common antiviral treatments.

Even though these are remote possibilities, it is important to recall that with the Spanish flu the first wave was relatively benign—just as the current wave of swine flu is benign. Thus, although Australia is well situated to handle a large outbreak with ample supplies of antiviral medication and a highly developed health system, it needs to remain on the alert to see if the virus continues to spread, becomes more pathogenic, or develops resistance to vaccines and pharmaceuticals.

The world has for the first time taken notice of the WHO's pandemic alert system, as every stage has been accompanied by mass publicity. The question remains, however, whether the alert system makes sense as currently devised. The World Health Assembly revised the pandemic alert level in 2009, but it has been largely ineffective in response to swine flu. The

reason is that the alert system has no legal or policy significance. It does not trigger any powers held by WHO, and countries are not required to take any action. The system is based on geographic distribution of sustained spread among humans without due regard to the actual health threat, as it could entail relatively mild disease. The threat level, moreover, could heighten fears and cause the public to overreact. As a consequence, the WHO should seriously consider factoring in the seriousness of the disease into its pandemic alert system.

### The Australian response

The fact that Australia is a remote continent has traditionally given a sense of security—vessels took weeks even months to come from Asian or European ports and distance provided a natural period of quarantine. Yet rapidly spreading infectious diseases managed to migrate to even remote parts of the world and continue to do so; and their spread is exacerbated in the 21st century with global travel and rapid communication. It is often impossible to hold diseases at bay, particularly influenza since many persons are infected and infectious without initially showing any symptoms. Thus, the policy of containment adopted at first by the Australian Government was never likely to contain the virus, (the intent was to slow the spread). It is even less likely that the pathogen could have been contained in one state (Victoria).

At the same time, the WHO did not recommend the use of quarantine, even though governments around the world adopted such measures. At first, Australia tried mass school closures and some sporting teams cancelled events, but subsequently Australian public health authorities reverted to treating swine flu as they would seasonal influenza, which WHO recommends. Thus, educating the public about personal hygiene, keeping away from other people if ill, and seeking prompt medical advice appears to be the best way to proceed. Limited use of antivirals where necessary could treat the vulnerable, while avoiding widespread use that could increase the chances of drug resistance.

Australia was one of the three countries pioneering research on the H1N1 vaccine (the United States and United Kingdom are the others). A vaccine is a vital response to the pandemic, and it is now being distributed across Australia in a national mass immunisation program. The question is whether developed countries such as Australia, the US and the European Union will share with the world's poorest

countries. If history is any guide, the vaccine is likely to disproportionately benefit the global rich, and the poor will be left without adequate supplies—although, the Australian Government, along with governments of other developed countries, have donated 10% of their vaccines to less developed countries.

### International Health Regulations

The revised International Health Regulations (IHR), for the first time in history, permit an organised global response within the rule of international law, and swine flu offers the first test of its effectiveness. Their purpose is 'to prevent, protect against, control and provide a public health response to the international spread of disease', while balancing the values of human rights and free trade (Article 2).

#### Emergency declaration

On 25 April 2009 the WHO Director General (DG) convened an emergency committee and declared a 'public health emergency of international concern', marking the first time a declaration had been made under the new IHR. The IHR define a public health emergency as an extraordinary event that constitutes a public health risk to other states through the international spread of disease, potentially requiring a coordinated (consequently international) response.

#### Notification

In the early crucial weeks of the SARS outbreak, China did not openly and promptly report the first cases. In consequence, the IHR now require states to notify WHO of all events within their territories that may constitute a public health emergency. The DG, not the state, has the ultimate authority to determine whether an event is of international concern. More specifically, states must report any case involving a new subtype of human influenza. WHO has authority to bypass official state reporting, to require states to verify unofficial data sources, and can harness new information technologies such as the Global Outbreak Alert and Response Network. The mandate to report and use additional data sources strengthens WHO's ability to track, analyse and respond to emerging infectious diseases.

#### Recommendations

A declaration triggers the DG's power to issue temporary recommendations. The DG may also issue standing recommendations on routine periodic application of health measures for specific ongoing

public health risks. On the same day that the DG made her declaration, she recommended that 'all countries should intensify surveillance for unusual outbreaks of influenza-like illness and severe pneumonia'. The DG did not recommend travel or trade restrictions, screenings or examinations. And, as mentioned above, the DG has relaxed surveillance and reporting responsibilities in light of the wide spread of the virus.

#### Human rights

The IHR require states to treat travellers with respect for their dignity, human rights and fundamental freedoms. Although the IHR allow states to impose personal restrictions beyond those WHO recommends, they may be no more restrictive, invasive or intrusive than reasonably available and effective alternatives. Generally, states cannot require invasive medical examinations, vaccinations or other prophylaxis as a condition of entry for travellers, or health documents beyond those permitted under the IHR.

#### Trade

The IHR, consistent with World Trade Organization (WTO) rules, require trade restrictions to be based on scientific evidence and risk assessments. Trade measures must be no more restrictive of international commercial traffic than reasonably available and effective alternatives.

### Gaps in WHO powers and resources

The IHR, therefore, empower WHO to provide leadership on public health measures. Yet, there remain significant gaps in the agency's authority and the resources necessary for an effective global response.

#### Monitoring and enforcement

Widespread failure to comply with international norms was a key reason for the new IHR. Yet, the IHR afford WHO little authority to monitor and enforce rules. Although states conscientiously reported swine flu, WHO has no authority to penalise a failure to notify. More importantly, the IHR impose binding limits on travel and trade restrictions, but many states have flagrantly violated this norm with impunity. The DG has power to make recommendations, but the IHR explicitly state that they are non-binding.

#### Capacity building

Perhaps the most important norm in the IHR is the requirement for states to build capacities for

surveillance and response. Yet, low- and middle-income countries lack adequate public health infrastructures. Although the IHR encourage rich states to donate resources and technical assistance, precious little has been devoted to build capacity in poor countries. This places the world at significant risk because emerging infectious diseases often originate in highly populous countries in Africa and Asia with close interchange between humans and animals.

### Virus sharing

WHO has been embroiled in a major controversy with Indonesia for 2 years over its refusal to share influenza samples that are critically needed to assess the threat and develop vaccines. Indonesia, supported by many low-income countries, argues that it would not be guaranteed affordable and sufficient access to vaccines. The IHR do not afford WHO authority to resolve disputes like these, despite their importance to global security.

### Gaps in national powers and resources

Most people believe that highly developed countries such as Australia and the US have all the power and resources they need. Yet, many countries lack both. The Canadian SARS Commission's criticism of the lack of legal power and resources available to Canada's public health agencies resulted in fundamental reform of public health law and an influx of resources. Australia and the US, however, have not learned those lessons.

In the US the legal authority of the Centers for Disease Control and Prevention (CDC) to prevent the introduction, transmission or spread of communicable diseases into or within the US dates to 1944, but its critical powers—to quarantine, inspect, disinfect and destroy animals—have limited applicability to only a few diseases. If the CDC did try to exercise power, its legal authority would be challenged, causing needless delays and uncertainty—and its actions might be ruled unconstitutional. To its credit, the CDC has tried for more than a decade to modernise its legal authority. But its proposed fundamental revision was submitted more than 3 years ago, and regulations have yet to be finalised.

In Australia the primary public health response is the Commonwealth's *Quarantine Act 1908*, (currently under review) which has rarely been amended for human quarantine. It contains few, if any, of the safeguards of individual rights expected in a liberal

democracy. Its constitutional validity has never been tested, particularly in relation to domestic or 'non-border' restrictions.

The majority of states in the US have adopted the Model State Emergency Health Powers Act or at least parts of it. I led the drafting of that Act on behalf of the CDC following the anthrax attacks in 2001. Even for states that have adopted the Act, it does not come into effect unless there is a declaration of a public health emergency. Since the swine flu is relatively benign, it could be difficult to declare such an emergency. In 2005, recognising this flaw, I led the drafting of the 'Turning Point' State Model Public Health Act, which is designed to give public health agencies modern powers while still protecting individual rights. However, many states in the US still have antiquated laws and are ill prepared to cope with a pandemic.

States in Australia have considered adopting the Model State Emergency Health Act but most have not. South Australia has recently placed emergency powers provisions in its *Public and Environmental Health Act 1987*. The equivalent Australian laws vary in their capacity to respond. States have quite different emergency provisions and some have very few effective powers at all. South Australia has only recently amended its laws to provide an emergency public health response (notably the power to quarantine persons who are not necessarily infected) but without an accompanying framework of constraints and principles to guide their use. However, the recently released draft *South Australian Public Health Bill 2009* does establish a set of rights and responsibilities, including the requirement that the restrictions on individuals be proportionate to the risks they present to others.<sup>4</sup> The need to be consistent with international health regulations is also emphasised by a specific function vested in the Minister for Health that provides that he or she can 'co-operate and coordinate with national or international action consistent with the objects of this Act'.<sup>5</sup>

Governments across the world are often criticised for allocating inadequate resources to public health. As the cost of health care has soared, only a tiny fraction of total health spending goes toward prevention and public health.<sup>6</sup> As a result, many public health agencies in many parts of the world have weak surveillance systems, so that early warning and response is highly fragmented.

## Global justice

Despite the IHR norm that travel and trade must be scientifically well founded and respectful of human rights and commerce, countries have implemented numerous restrictions. Mexico suffered severe economic and social repercussions as tourism and trade fell sharply; GNP dropped 0.3–0.5% in a matter of weeks. The media originally referred to swine flu as the 'Mexican' flu, Mexicans were cruelly blamed and called unclean, and conservative US commentators urged tougher penalties against Mexican immigrants.

## Quarantine and thermal scanning

Asian countries affected by SARS have been most aggressive in response to swine flu, although all regions have adopted coercive measures. China and Hong Kong implemented quarantines for travellers from Mexico, Canada and the US. Furthermore, 22 Canadian university students with no apparent flu symptoms were held in a hotel in Changchun, a north-eastern city in China. In Hong Kong an infected man from an AeroMexico flight was isolated, while 300 guests and employees at the hotel where he stayed were confined for a week under police guard. In Singapore anyone who had recently visited Mexico was placed into home quarantine. In South Korea an Australian lacrosse team was quarantined at a hotel. Additionally, thermal scanners were set up at airports and hospital isolation units in China and Singapore, where staff at emergency departments were wearing full protective clothing.

## Social distancing

Social distancing measures have been widely adopted, including closure of schools, public events and mass transportation. In the US the CDC recommended school closures for up to 14 days if a case was suspected or confirmed. Before the CDC reversed its position only 4 days later, more than 700 schools were closed, affecting some 245 000 children.<sup>7</sup> In Australia students were also initially kept out of school at the beginning of the outbreak, but this was subsequently reversed.

## Travel restrictions

WHO finds that travel restrictions would have 'very little effect on stopping the virus from spreading, but would be highly disruptive to the travel community'. Despite this, many countries (including the US) advised against all non-essential travel to Mexico, and some implemented outright travel bans. For example, China suspended all flights between the two countries and chartered a plane to pick up Chinese nationals

within Mexico. Additionally, Latin American countries (Argentina, Peru, Ecuador and Cuba) suspended flights from Mexico. Countries such as Japan and Singapore singled out Mexicans for special visa requirements such as a medical examination or only accepting mail applications to avoid physical contact.

## Trade restrictions and culling

There is no scientific evidence that eating pork causes swine flu. Yet, 20 countries have banned meat from Mexico, Canada and the US, including two of the world's largest pork importers, China and Russia. In response, Mexico filed a statement with WTO arguing that bans violate international trade rules. Egypt took the drastic measure of culling the country's estimated 400 000 pigs, perhaps motivated by prejudice against the Coptic Christian minority (the primary consumers of pork).

Epidemics bring out the worst in people. It is all the more important, therefore, to have an international system guided by science, with adequate funding for research and public health, and which conforms to the rule of international law.

## References

1. Gostin LO. Influenza A (H1N1) and pandemic preparedness under the rule of international law. *JAMA* 2009; 301:2376–2378.
2. See for example: Reynolds C. *Plagues and prejudice: boundaries, outsiders and public health*. PhD thesis; University of Adelaide 1992. Unpub.
3. Curson P, McCracken K. *Plague in Sydney: the anatomy of an epidemic*. University of New South Wales Press. Sydney. 1989.
4. cl. 14(d) South Australian Public Health Bill 2009.
5. cl. 17(1)(d) South Australian Public Health Bill 2009.
6. For example, in Australia between 1.8–1.9% of the health budget is allocated to public health. Australian Institute of Health and Welfare. *Public health expenditure in Australia, 2006–07*. Health and welfare expenditure series no. 34. Cat. no. HWE 41. AIHW, Canberra, 2008. <http://www.aihw.gov.au/publications/hwe/phea06-07/phea06-07.pdf>.
7. US Department of education. H1N1 flu & schools: answers to frequently asked questions. <http://www.ed.gov/admins/lead/safety/emergencyplan/pandemic/guidance/flu-faqs.pdf>.

### Legislating for public health risks: a way forward for public health law?

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#### Disease and its causes

In Jane Austen's novel *Emma* the heroine's family, living comfortably in rural Surrey, contemplate a visit to London but with some sense of foreboding: '[n]obody is healthy in London' says Emma's father, 'nobody can be ... the air is so bad'.<sup>1</sup> Writing this in 1815, Austen was describing a view that was commonplace for most of the 19th century, namely that miasmas or 'effluvia' in air emanating from insanitary conditions caused disease. Put simply, and in the words of Edwin Chadwick (author of the *Public Health Act 1848*), 'all smell is disease',<sup>2</sup> and so it was necessary to focus on conditions that were malodorous as a telltale sign of the sources of infection. The idea also shaped our first public health laws: when the *Nuisance Removal and Disease Prevention Act 1848* was introduced into the British Parliament, it was said that the causes of cholera 'were atmospheric; that it was influenced by the exhalation of rivers, the currents of air, and certain meteoric changes and vicissitudes'.<sup>3</sup> The new Act was meant to address issues like these.

As a general explanation for disease causation, the miasmatic view was wrong; a better understanding of pathogenicity disproved it. In 1912 Hibbert Hill, a North American professor of public health, illustrated the difference between the old and the new way of understanding by considering garbage as a source of disease. A miasmatic view 'regarded the garbage-pail as in itself and by itself intrinsically bad, disease-producing and deleterious to health'. The new view saw it as 'merely a place where flies are fed and, possibly, bred' and, given the right conditions, unpleasant and smelly conditions such as rubbish heaps or sewers could become a source of disease through contamination by pathogens.<sup>4</sup>

#### The first public health laws

The miasmatic view of disease causation was entrenched in the first 19th century public health legislation and, notwithstanding the new knowledge, persisted through the 20th century, providing 'scientific' underpinning for the primary response to public health problems. Thus, powers were given to local authorities

in section 1 of the *Nuisance Removal and Disease Prevention Act 1848* to order the removal of specified 'nuisances' where premises were in a 'filthy and unwholesome condition as to be a nuisance or injurious to the health of any person'. This power was later introduced into Australia and became the mainstay of colonial public health laws. For example, the South Australian Public Health Act 1873 provided powers to deal with the accumulation of manure, dung, soil, filth, blood, offal, coal-ashes, or other offensive or noxious matter by declaring them nuisances, while activities such as slaughter houses and boiling works could be declared noxious trades and controlled on account of their emitting 'effluvia'.<sup>5</sup> Later Acts retained this fundamental approach to public health, and public health legislation retained this general structure and these ideas throughout the 20th century. Indeed, most states entered the 21st century with public health laws that were not significantly different to those first drafted in the 19th century. In some cases they were the same Acts—Western Australia still operated with an Act first passed in 1911 (and still does) and Queensland with an Act passed in 1937. Thus, a nuisance within the meaning of the Western Australian Health Act 1911 continues to include situations:

*'...where a pool, ditch, gutter, watercourse, sanitary convenience, or drain is so foul or out of repair, or otherwise in such a state as to be offensive or injurious or dangerous to health; or ... where there exists an accumulation or deposit which is offensive or injurious or dangerous to health.'*<sup>6</sup>

Indeed, had he been summoned from his grave in 2000, John Snow could have emigrated to most Australian states and New Zealand and worked happily with public health legislation that would have been quite familiar to him. Reform and new ideas in public health laws have never come quickly.

#### The traditional response is too limited

In many respects, these front-line responses to the public health problems of the day were effective in capturing many issues (e.g. defective sanitation, exposure to smoke, open manure pits) that had the potential to harm people who had been exposed (although for reasons other than miasmas). In effect, these first public health laws were also our first environmental laws, with powers to address impacts that affected both health and amenity. They predated the environment protection laws by more than a century but were limited in their operation. Case

law suggests that terms like 'nuisance' or 'insanitary condition' had, and continue to have a focused meaning. They are confined by the origins of the term, so that, while smoke or smells would certainly qualify as a public health nuisance, a range of newer or not so traditional concerns would not. For example, the English courts, in exploring the breadth of the statutory use of the term 'nuisance,' suggested that it is still confined to its traditional 'sanitary' origins. Therefore, while smells and unsightly conditions such as overflowing sewers and manure pits come within it, other situations, such as those potentially causing physical injury, do not amount to a nuisance. One case involved a rubbish tip, where the health hazard was the dumping of materials, such as builders' rubble, that could injure persons using the area;<sup>7</sup> another involved a steep and dangerous set of stairs.<sup>8</sup> Even premises with inadequate sanitary facilities have been excluded from the term. Thus, premises without a hand basin in the toilet were found not to be prejudicial to health within the meaning of 'nuisance', with one judge saying that '[t]here must be a factor which in itself is prejudicial to health. I do not think that the arrangement of the rooms ... not in themselves insanitary so as to be prejudicial to health falls within the (scope of a statutory nuisance)'.<sup>9</sup>

These cases suggest that the old remedies are locked in their past and cannot respond to emerging public health problems. Given this, should we adopt new thinking in the provision of public health remedies or should we continue to rely on the traditional way? States seem to be divided on this question. Both Queensland in 2005 and Victoria in 2008 passed new public health legislation that continued the traditional approach. In Queensland the term 'nuisance' was replaced by 'public health risk', but this is a change of name only; with public health risks still defined in a way that emphasises the traditional content of nuisances.<sup>10</sup> Victoria retained the term 'nuisance', defining them as conditions 'dangerous to health or offensive' (where offensive means 'noxious, annoying or injurious to personal comfort'), emanating from a list of specified and traditional causes.<sup>11</sup> The definition is interesting since it seems both narrow and wide at the same time. The idea of 'dangerous to health' sets a high test, and appears to exclude a range of risks that should be of concern even though they lack the imminent threat implied by a danger. The idea of 'offensive', even with this definition, seems to cover a multitude of possibilities including concerns relating to amenity or the need for orderly planning. Most importantly,

though, the use of the term 'nuisance' effectively limits the scope of an important 'front-line' public health remedy to its 19th century sanitary and miasmatic origins.

Other states (Western Australia, South Australia and New South Wales) are in the process of review and reform of their laws. In each case, choices can be made about the scope of the primary public health remedy in new legislation. For example, in South Australia the *Public and Environmental Health Act 1987* uses the term 'insanitary condition', which is defined in terms generally similar to 'nuisance', with potentially the same limitations and the overtones of sanitary defects. Any rewriting of public health law in this state therefore presents choices:

- > Should it continue with this 'nuisance-type' power as other states have, notwithstanding the constraints and limits alluded to by the courts?
- > Should public health legislation continue to address environmental health at all, perhaps vacating the field and leaving environmental health as the sole responsibility of environment protection agencies?
- > Should a wider approach to public health remedies be adopted and, if so, how should they be expressed?

### A general 'harm-based' approach

New Zealand offered a new approach to public health law in 1999 in a paper published by the Department of Public Health, Wellington School of Medicine, entitled 'The development of a public health risk management methodology to inform decision making'. The paper called for a systematic approach to public health based on risk management. It argued that such an approach would have the objective of improving, promoting and protecting the public's health, and would set out an 11-step process to achieve this, including surveillance, identifying hazards, prioritising risks and planning a risk management approach. This general 'risk-based' approach was adopted and built on in Australia in 2000 by the National Public Health Partnership's discussion paper 'The application of risk management principles in public health legislation', which developed the New Zealand ideas into a legislative framework.<sup>12</sup> Rather than having Acts that provided a range of specific problems (as in a list of nuisances), it raised the possibility of having a concept—'harm to public health'—as the 'spine' around which the administrative powers, notably orders or penalties, should be

organised. A statutory duty lay at the basis of this concept—a duty to avoid harm to public health—which could be expressed as follows:

*'A person must not undertake any activity that may result in harm to health unless the person takes all reasonable and practical measures to eliminate the possibility of that harm occurring.'*<sup>13</sup>

Those who breached their duty might then be subject to an order to abate or remediate the problem.

This idea has been followed in Western Australia in its *Public Health Bill 2008*<sup>14</sup> and, most recently, in South Australia. The draft *South Australian Public Health Bill 2009* provides environmental health responses centred on a general statutory duty to protect public health, namely that:

*'A person must take all reasonable steps to prevent or minimise any harm to public health caused by, or likely to be caused by, anything done or omitted to be done by the person.'*<sup>15</sup>

This general duty carries no criminal or civil liability but, as with the nuisance provisions, can be enforced by an order to rectify the problem. However, and unlike the traditional approach, the general duty is also reinforced via new general offences with substantial penalties prohibiting a person from carrying on activities that are likely to cause serious or material harm to public health.

The concept of a 'risk of harm to public health', around which the duty and offences lie, is the key idea in this new approach. First, it is not confined by the historical legacy of terms such as 'nuisance' and the case law that narrows the scope of public health actions (and may limit it applying to new and emerging problems.) While many issues will remain the same, there will always be new issues that do not fit within the traditional parameters but which would be captured by an approach that focuses on the outcomes (ie the risk or harm to public health) rather than on a specific area of established public health issues. This point is crucial; the environmental health issues of the 21st century cannot be responded to in the language and ideas of the 19th century. Further, it is a contemporary approach that is centrally focused on impacts and risks. It allows a systematic process of assessing these impacts, measured by their nature, the number of people exposed to them and the extent to which they can reasonably be eliminated. In practice, a broadly based statutory duty would include the traditional areas currently covered by the terms 'nuisance' or

'insanitary condition', which are still issues today, such as overflowing effluent; but it would also extend to other areas where the legislative response sometimes falls short. These might include public swimming pools; tattooing parlours; 'therapeutic' health or lifestyle procedures such as colonic irrigation; or bottled water operators. It will also include a range of future threats to public health not yet thought of or described.

### A plea for the public health approach

Why does the case to broaden and modernise the capacity of public health agencies to respond to new and emerging public health risks matter? Most public health or environmental health problems can also be characterised as relating to the health of the environment, given that humans are a part of their environment and that Australian environment protection laws, which are comprehensive and carry substantial penalties, extend to all of the traditional fields typically of concern to public health (air, water, noise and waste). Furthermore, other environmental health issues could be dealt with in other areas, such as consumer affairs or through use of general local government order-making powers. This would narrow public health legislation to disease control and the capacity to respond to public health emergencies, should they arise.

The case to broaden and modernise the capacity of public health agencies to respond to new and emerging risks to public health matters because the traditional values and ideas that encompass the environmental health approach are worthwhile and should be defended. An environmental health approach is holistic, as reflected in the training of its practitioners. Environmental health draws links between society and the environment, and forges complex relationships between history, place and opportunity that powerfully shape people's health and wellbeing, for example, in the case of indigenous Australians. Our current environmental health practice is also a 'textured' and 'deep' discipline, the product of a long tradition that urges social and environmental reform based on sound evidence drawn from epidemiology, medical investigation and social inquiry. This is its promise and its power and if that is to be fulfilled it needs legislation that properly supports versatile, well-connected and imaginative responses to the new and emerging public health challenges of the 21st century.

## References

1. Austen J. Emma. Penguin Books, London, 1996, p. 98 (first published 1815).
2. United Kingdom Parliamentary Papers, Metropolitan Sewage Committee proceedings, 1846, vol 10:651, Chadwick's evidence. Cited in Halliday S. 'Death and miasma in Victorian London: an obstinate belief'. *BMJ* 2001; 323(7327): 1469–1471.
3. United Kingdom Parliamentary Debates (Hansard) 1848, p. 614.
4. Hill HW. *The new public health*. Macmillan, New York, 1920, p. 12.
5. ss. 45 and 56, Public Health Act 1873 (SA).
6. s.182 Health Act 1911 (WA).
7. *Coventry City Council v Cartwright* [1975] 2 All ER 99.
8. *R v Bristol City Council, ex parte Everett* [1999] 2 All ER 193 (Court of Appeal).
9. *Birmingham City Council v Oakley* [2000] 3 WLR 1936 (House of Lords) at 1943.
10. s.11 Public Health Act 2005 (Qld).
11. s. 58 Public Health and Wellbeing Act 2008 (Vic).
12. National Public Health Partnership, 2000 <<http://www.nphp.gov.au/publications/legislation/riskmgtreppdf>.
13. *ibid* part 6.3.
14. cl. 24(1) Public Health Bill 2008 (WA).
15. cl. 52(1) South Australian Public Health Bill 2009 (SA) (draft).

## Personal responsibility, obesity prevention and front-of-pack food labelling

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### Introduction

The food industry and public health groups are locked in a serious struggle for regulatory influence over the terms of front-of-pack food labelling. If the answer to obesity lies in personal responsibility, as is widely assumed, then you might have thought it was reasonable to insist on food labelling that unambiguously indicates the nutritional benefit of the food you purchase. Such information can't hurt you, and it might just help you make a healthier choice.

In reality, the opposition of the food industry—acting through its peak lobby group, the Australian Food and Grocery Council (AFGC)—to front-of-pack 'traffic-light labelling' underscores the influence of money, rather than ideology, in food regulation. In this article I will examine the role of personal responsibility, and argue that it is likely to contribute comparatively little to a successful response to population weight gain. This does not mean, however, that improved food labelling has no role to play—clearly it does. What we don't need, however, is pseudo food labelling that enables the food industry to claim that it is 'doing its bit' and helping adults to make healthier choices, when in fact it is doing nothing of the sort.

### Obesity: a growing challenge to health in Australia

As everyone knows, overweight and obesity have become a serious health problem for Australia. At least 67% of men and 52% of women are either overweight or obese,<sup>1</sup> and this creates risks for a wide range of chronic diseases including diabetes; heart disease; and colon, breast and ovarian cancer.<sup>2</sup>

Obesity rates are also rising sharply in children. Nearly one in four Australian children aged 7–15 years is now either overweight or obese, compared to 20.7% in 1995 and 11.5% in 1985.<sup>3</sup> A recent study by the Victorian Government estimates that, if current trends continue, an astonishing 83% of males and 67% of

females will be overweight or obese by 2025, as well as one-third of children.<sup>4</sup>

Above the normal weight range (BMI 25.0–29.9 kg/m<sup>2</sup>), mortality rates rise by 30% for every 5 kg/m<sup>2</sup> increase in BMI.<sup>5</sup> In other words, on average, overweight and obese people die younger. In the USA, by age 40 years, overweight female and male non-smokers have a reduced life expectancy of 3.3 and 3.1 years respectively, and for obese female and male non-smokers the reduction in life expectancy increases to 7.1 and 5.8 years, a loss similar to that from smoking.<sup>6</sup> Forty-year-old obese smokers fared even worse, losing a staggering 13.3 and 13.7 years of life respectively, on average, when compared to male and female non-smokers of normal weight.<sup>7</sup> In 2003, overweight and obesity accounted for 7.5% of the total burden of disease in Australia, almost as much as smoking (7.8%).<sup>8</sup>

Interestingly, one recent study revealed that, although 54% of a sample of Australian men were overweight or obese, only 33% perceived their overweight status accurately. Among women, however, the trend was the opposite: although only 37% were overweight or obese, 43% perceived themselves to be.<sup>9</sup> Studies from Britain and the USA also suggest that, over time, fewer overweight and obese people are perceiving their weight accurately.<sup>10</sup> This has important implications if personal responsibility and self-motivation are key components of strategies for obesity prevention.

On one estimate, obesity is already costing Australian governments \$8.3 billion per year due to health system costs, welfare payments, carer costs and tax foregone.<sup>11</sup> This economic burden will continue to rise until governments adopt policies that stabilise and gradually wind back the trend towards weight gain.

### The 'Abbott strategy': it all comes down to you

So what are governments doing to prevent obesity? The dominant ideology in Australia is one of commercial freedom and personal responsibility. This approach is well represented by comments made on many occasions by the former Minister for Health and Ageing, Tony Abbott MHR. In 2005, for example, Mr Abbott stated:

*'In the end, our weight is largely a product of the amount of exercise we do and the amount of food we put in our mouths. And obviously we are in almost total control of both of those issues.'*<sup>12</sup>

In 2006, in an opinion piece in the *Sydney Morning Herald*, Mr Abbott wrote:

*'Unlike cancer or bird flu, there's little mystery about obesity...If the food that people eat contains more calories than they expend in daily living, they put on weight. It's a simple equation...The only way to address habits reinforced by instinct is to tell people what their behaviour is doing to them, over and over again in crystal-clear terms. People need to know that a large Big Mac meal contains 1,080 calories, a large chocolate Moovee 385 calories, a Krispy Kreme doughnut 198 calories.'*<sup>13</sup>

In Australia, as in the USA, those who fail to put Mr Abbott's dietary advice into practice in their own lives can expect little sympathy from others. As the Chair of the US Judiciary Committee, Congressman Sensenbrenner, is reported as saying: 'Don't run off and file a lawsuit if you are fat...Look in the mirror, because you're the one to blame'.<sup>14</sup>

For the record, Mr Abbott's attention to health and fitness in his own life set a fine example for Australians everywhere, and his comments make good sense—as dietary advice to individuals. For individuals, taking personal responsibility for one's diet and level of physical activity is the only way (short of bariatric surgery) of achieving energy balance. Furthermore, for those who are accustomed to thinking about diabetes, heart disease and lung cancer in terms of an individual's risk factors, it seems reasonable enough to base population strategies on the behavioural strategies that we know can work in individuals.

But populations are different from individuals. As a response to population weight gain, the Abbott strategy hasn't succeeded so far, and nor is it likely to succeed in the future, for several reasons. First, it makes success at the population level completely dependent on the motivation and capacity of each individual in the population to 'live right' and dramatically alter their habits and lifestyles. As a result, there are as many opportunities for policy failure as there are individuals in the population. Even the weight loss industry, which works with a self-selected group of individuals who most want to change has a pretty dismal record in assisting people to reduce their weight in a sustainable

manner.<sup>15</sup> Most diets fail for most people most of the time. Of course, this does not necessarily spell doom in the individual case.

Until the environment makes healthier choices easier than they currently are, personal responsibility and personal motivation are unlikely to function as the drivers of mass behavioural change. The problem is that the behaviour of the population, on average, evolves in response to the surrounding environment. For example, work and time pressures, urbanisation, long commutes, more women in the workforce, and a ready-made food industry that has evolved in response to these factors mean that the typical Australian meal is very different to what it was 50 years ago. The number of fast food outlets doubled between 1992 and 2002, with Australian families purchasing fast food on average once every 3 or 4 days.<sup>16</sup> A substantial body of evidence also demonstrates that certain foods dominate food advertising in a way that is grossly disproportionate to their recommended role in a balanced diet.<sup>17</sup> For example, Chapman, Nicholas and Supramanian reported that 31% of their sample of free-to-air television advertisements screened between 7.00 am and 9.00 pm were for food, the vast majority of which (81%) were for foods high in fat, sugar and/or salt, and of low nutritional value.<sup>18</sup> Take-away food, chocolate and confectionary dominated food advertisements, in that order.

Many individuals, of course, would claim that they are immune to food advertising and do what they want. That might be true but it's not the point. Food advertising works at the population level, and that is all that matters. That is why food manufacturers and food retailers continue to invest enormous sums of money in food advertising. According to Scully, Dixon and Wakefield, in 2005 the food industry spent over \$110 million promoting their brands in the mainstream media.<sup>19</sup> Globally, in 2004 Pepsico and Coca Cola spent \$1.7 and \$2.2 billion on advertising, respectively, a total exceeding the World Health Organization's biennial budget.<sup>20</sup>

Until food companies can be persuaded, or are required by law, to prioritise healthy foods in their promotions, and to improve the nutritional quality of their products across the board, nothing is likely to change. The attraction of personal responsibility from the political perspective is not hard to explain. Marketing behavioural change to individuals allows governments to avoid imposing greater responsibility on food, alcohol and tobacco manufacturers and retailers for the health impact of the products they make and sell. Nor does it require governments to improve the

quality of the physical environment, or to confront the socioeconomic factors that contribute to health inequalities. Lifestyle recipes are good for individuals—they ought to be encouraged as part of a balanced policy response. But they are unlikely to succeed unless governments also tackle the deeper environmental influences that make unhealthy choices and behaviours common within the population.

### Personal responsibility isn't the only way to keep the population healthy

The failure to distinguish between policies for keeping individuals healthy (lifestyle medicine) and policies for keeping populations healthy (population health) is central to the attraction of ineffectual policies for the prevention of smoking, obesity and non-communicable diseases generally. Advocacy for healthy lifestyle choices in the public sphere (health promotion) is an important strategy in public health practice, but it is best paired with regulation, as illustrated by successes in the field of tobacco control.

Policy-makers also need to remember that improvements in the health of a population do not, necessarily, need to be mediated through the conscious efforts of individuals. For example, the best ways to improve the dental health of the population are to put fluoride in the water supply and improve access to affordable dental care. These are much smarter options than lecturing the population about the importance of brushing their teeth, buying toothpaste and avoiding lollies.

If our focus is on the health of the population, it is helpful to think of the economic and social circumstances of society, and its policies and laws, as well as the physical environment, as exposures to which the population is subject. These exposures influence the patterns of behaviour that act as risk factors—or protective factors—for population weight gain. The availability of cheap, efficient public transport, for example, encourages incidental exercise every day. Price differentials between energy-dilute and energy-dense food, and the nutritional quality of highly advertised foods, also have an undeniable influence in shaping the average diet.

A final point to make about the overemphasis of personal responsibility as a strategy for reversing population weight gain is that it is likely to fail most spectacularly among those who currently suffer the greatest health inequalities, relative to the rest of the population, due to the fact that their health status is undermined by socioeconomic disadvantage.<sup>21</sup> Rates

of obesity have risen for all socioeconomic groups but a socioeconomic gradient remains, and it is particularly pronounced when obesity is compared with level of education, income quintile and occupation.<sup>22</sup> If we want to tackle health inequalities, we need to remember that, at the population level, social and economic disadvantage make healthy decisions even harder.

### The population health strategy

If we want to change the trend towards weight gain in the population, we need something slightly more sophisticated than telling the nation to 'get a grip'. We need to focus on policies that could influence the average behaviour of the population, not necessarily dramatically (dramatic changes, like dramatic diets, tend not to be sustainable) but subtly, through small, sustainable modifications to the behaviour of many people. Public health advocates often speak about creating supportive environments that encourage healthy choices and lifestyles. By changing the environment, and making healthy lifestyles easier, it becomes less necessary to keep on persuading individuals.<sup>23</sup>

Of course, a population health strategy has its own challenges. To improve the weight and health of the population, we need to change eating patterns and/or the nutritional quality of the food eaten. Reducing the burden of chronic disease requires a reduction in the consumption of high-sugar, high-fat, high-salt foods, and an increase in consumption of fresh fruit and vegetables. That can lead public health policy-makers into direct conflict with those who benefit economically from the current patterns of (over)consumption that fuel chronic disease.

The dilemma for the processed food industry is that 'good' foods are bad commodities with low profit margins while 'bad' foods are good commodities with high margins.<sup>24</sup> Food manufacturers and large retailers are corporations that are designed to maximise profit, even if this means resisting regulation that could improve public health nutrition or reduce population weight gain. This is not to say that the food industry is unwilling to meet demand for healthy foods, or even to trial healthier foods. There are, however, powerful disincentives for a rational, economically motivated actor like a food or beverage manufacturer to do anything that could destabilise the revenues that flow from demand for unhealthy foods.

### Food labelling and public health nutrition: a case study

Food labelling provides an interesting case study of the contest around food regulation, and the way in which this obliges the food and beverage industry to protect its economic interests by participating in the debate about obesity prevention and public health nutrition. Given the dominance of the personal responsibility narrative in public life, one might have thought that labelling laws designed to enhance the capacity of adults to make informed dietary choices for themselves and their children would have sailed through Parliament long ago. The reality is rather different.

On the one hand, the food industry has a strong economic interest in being able to develop and advertise the health benefits of 'functional foods'. A new draft Standard on Nutrition, Health and Related Claims (Standard 1.2.7), and amendments to the Nutrition Information Requirements set out in Standard 1.2.8 of the Food Standards Code, provide the framework that supports food industry initiatives in this area.<sup>25</sup> To the extent that it can make claims about the health effects of certain nutrients in food, the food industry seems to have embraced the notion of healthy foods. On the other hand, when it comes to junk foods, the industry prefers to talk about healthy diets and healthy choices of individuals.

The Food Standards Code, which applies in each state and territory, requires packaged foods to display a nutrition information panel indicating the amount of energy, protein, total and saturated fat, carbohydrate, sugars and salt per recommended serving and per 100 g or 100 mL.<sup>26</sup> Truth in nutrient claims is required. For example, reduced-fat foods must be 75% or less of the fat content of the reference food (with at least a 3% fat per weight reduction for food); low-fat foods must not contain more than 3% fat per weight, and fat-free foods must not contain more than 0.15% fat per weight.<sup>27</sup>

Studies suggest that Australian and New Zealand consumers find current back-of-pack labelling confusing and difficult to understand.<sup>28</sup> Similarly, in their review of international studies, Cowburn and Stockley point to the difficulty consumers have in understanding the significance of nutrient information within the context of their overall diet. They argue that interpretational aids or benchmarks, such as verbal descriptors or guideline daily amounts, could assist consumers to place a product into a total diet context.<sup>29</sup>

### Front-of-pack food labelling in Australia: just don't mention the money

In November 2006, one month after front-of-pack food labelling reached the agenda of the Australia New Zealand Food Regulation Ministerial Council (the body responsible for trans-Tasman food policy), the AFGC launched a voluntary labelling scheme called Daily Intake Labelling (DIL).<sup>30</sup> Now adopted by Woolworths, Coles and Franklins, it identifies the percentage of energy, protein, fat, saturated fat, carbohydrates, sugars and salt *per serve* of the food in a thumbnail, monochrome format. In other words, it replicates, on the front of the pack, information that the Food Standards Code requires manufacturers to include in the nutrition panel.

The main contender to DIL is called Traffic Light Labelling, a system originally developed as a voluntary measure by the UK Food Standards Agency. Traffic lights judges the nutritional quality of food by means of highly visible red, yellow and green flags on the front of the pack, together with percentages that reflect the levels of salt, sugar, fat and saturated fat in the food.<sup>31</sup> Research conducted by the UK Food Standards Agency,<sup>32</sup> and by a coalition of Australian organisations including CHOICE and the Cancer Council,<sup>33</sup> support the conclusion that, overall, traffic light labelling is the most successful model for helping consumers to identify the foods that contribute to a healthier diet. The coalition's survey of 790 adults in New South Wales found that consumers using traffic lights were five times more likely to correctly identify the healthier food products, compared to the monochrome percentage of daily intake (%DI) system.

As a spokesperson for CHOICE states, 'Traffic lights are simple and easy to use. They enable busy consumers to make healthy choices while doing their shopping. Shoppers don't have all day to stand around in supermarket aisles calculating their dietary needs'.<sup>34</sup>

There are two critical differences between the two labelling systems. First, DIL is more complex than traffic lights because the former requires comparison across seven categories. It also assumes that consumers measure out and limit themselves to the recommended serving. When did you last measure out 30 g of cereal at breakfast? If food manufacturers and retailers are uniting behind DIL, as the AFGC claims, then it's worth asking why. Second, DIL is agnostic about the quality of the nutrition of a product. It is for this reason, for example, that the Sanitarium Health Food Company has

not signed on to DIL, stating that 'the % daily intake value only provides information about the quantity of nutrients not the quality of nutrition'.<sup>35</sup>

Traffic light labelling, by contrast, is interpretive and judgmental. It helps consumers make healthier choices by taking a position on the nutritional quality of the product, and identifies the foods they should avoid or eat sparingly. It is this judgmental quality, together with its relative simplicity, that makes traffic light labelling more helpful for making decisions in real time, in supermarkets. In February 2009 a consensus forum hosted by the Australian Chronic Disease Prevention Alliance (ACDPA) agreed that any front-of-pack labelling scheme ought to be mandatory and interpretive, and should convey nutrient information based on 100 mL or 100 g, rather than on a serving size determined by the manufacturer.<sup>36</sup> The ACDPA also recommended extending this form of nutrition labelling to the standardised menus of quick-serve restaurants.

As the AFGC must realise, an interpretive scheme like traffic light labelling has the capacity to interfere with revenues by reducing the consumption of red-flagged foods. Over time, it is also likely to increase consumer understanding of the nutritional quality of food products, and to encourage food manufacturers to change the food supply through product reformulation and development to meet nutrient criteria levels.<sup>37</sup> These factors alone may explain some of the hostility of the AFGC to traffic lights, and why it has been vigorously promoting its non-interpretive alternative, DIL. On the other hand, reducing consumption of the red-flagged foods is the very thing that is necessary if individuals are to exercise personal responsibility.

The Chief Executive of the AFGC asserts that traffic light labelling '...is an overly simplistic approach to the very important issue of food labelling in Australia',<sup>38</sup> and has welcomed the Commonwealth Government's recent decision to defer any decision on the preferred model for 12 months.<sup>39</sup> Given the role of AFGC in serving its members' economic interests, this response is not surprising. Nor are other subtle features of the industry's DIL scheme, such as the use of 'sodium' as the term to describe salt. If DIL really is supposed to help all adults make healthier choices, why not use a simple term that all consumers will understand?

Also unsurprising is the appearance of DIL at the very time that front-of-pack labelling became a policy issue at the Ministerial level. Voluntary, industry-sponsored initiatives are a familiar feature of the food governance

landscape, both in Australia and internationally. Their functions include heading off legislation, protecting revenues and positioning industry so that it is seen as responsive to concerns about diet and nutrition.<sup>40</sup>

## Conclusion

Whether or not the Australia New Zealand Food Regulation Ministerial Council will adopt an interpretive scheme like traffic light labelling, is not yet clear. Front-of-pack labelling provides a test case of the ability of industry to convince government that there are no unhealthy foods—only unhealthy diets, for which individuals are alone responsible.

If governments are unable to resist industry opposition to giving adults the information they need to choose a healthy diet in an effective format, then the prospects for introducing other measures to combat rising obesity rates do not look rosy. Traffic light labelling is, after all, aligned with the personal responsibility ethos. It is not coercive, it is not patronising, and it does not mandate what food products the food industry can manufacture, nor what adults can or cannot eat. What it does do is level the playing field, just a little, so that consumers better understand the salt, sugar and fat profile of what they are buying. That just might be its downfall!

## References

1. Cameron AJ, Welborn TA, Zimmet PZ, Dunstan DW, Owen N, Salmon J et. al. Overweight and obesity in Australia: the 1999-2000 Australian Diabetes, Obesity and Lifestyle Study (AusDiab). *Med J Aust* 2003; 178:427–432.
2. Kim S, Popkin BM. Commentary: understanding the epidemiology of overweight and obesity – a real global public health concern. *Int J Epidemiol* 2006; 35:60–67; Flegal KM, Graubard BI, Williamson DF, Gail MH. Cause-specific excess deaths associated with underweight, overweight, and obesity *JAMA* 2007; 298:2028–2037; Pérez AP, Muñoz JY, Cortés VB, and de Pablos Velasco P. Obesity and cardiovascular disease. *Public Health Nutr* 2007; 10:1156–1163.
3. Roberts LM, Letcher TR, Gason AA, Lobstein T. Childhood obesity in Australia remains a widespread health concern that warrants population-wide prevention programs. *Med J Aust* 2009; 191:46–47 (letter).
4. Victorian Department of Human Services, Future prevalence of overweight and obesity in Australian children and adolescents, 2005–2025. Department of Human Services, Melbourne, 2008.
5. Prospective Studies Collaboration. Body-mass index and cause-specific mortality in 900,000 adults: collaborative analyses of 57 prospective studies. *Lancet* 2009; 373:1083–1096, 1086–1087.
6. Peters A, Barendregt JJ, Willekens F, Mackenbach JP, Al Mamun A, and Bonneu L. Obesity in adulthood and its consequences for life expectancy: a life-table analysis. *Ann Intern Med* 2003; 238:24–32.
7. Ibid.
8. Begg S, Vos T, Barker B, Stevenson C, Stanley L, Lopez A. The burden of disease and injury in Australia. *AIHW cat. no. PHE 82*, p 74. Australian Institute of Health and Welfare, Canberra, 2003.
9. Giskes K, Siu J. Do Australians perceive their weight status differentially and accurately? Implications for health promotion. *Aust N Z J Public Health* 2008; 32:183–184.
10. Johnson F, Cooke L, Croker H, Wardle J. Changing perceptions of weight in Great Britain: comparison of two population surveys. *Br Med J* 2008; 337:a494; Johnson-Taylor WL, Fisher RA, Hubbard VS, Starke-Reed P, Eggers PS. The change in weight perception of weight status among the overweight: comparison of NHANES III (1988–1994) and 1999–2004 NHANES. *Int J Behav Nutr Phys Act* 2008; 5:9. <http://www.ijbnpa.org/contents/5/1/9>.
11. Access Economics Pty Ltd. The growing cost of obesity in 2008: three years on. Report to Diabetes Australia, August 2008. <http://www.accesseconomics.com.au/publicationsreports/showreport.php?id=172>
12. The Honourable Tony Abbott MHR. Pandemic flu and obesity issues. Media release, 14 September 2005: at: <http://www.health.gov.au/internet/ministers/publishing.nsf/Content/health-mediarel-yr2005-ta-abbbsp140905.htm>.
13. The Honourable Tony Abbott MHR. A plan to win the battle of the bulge. *Sydney Morning Herald*, 10 May 2006.
14. Carl Hulse. Vote in House offers a shield for restaurants in obesity suits. *New York Times*, 11 March 2004. <http://www.nytimes.com/2004/03/11/politics/11BURG.html> [emphasis supplied].
15. World Health Organization (WHO). Obesity: preventing and managing the global epidemic. WHO Technical Report Series 894, pp 179–194. WHO, Geneva, 2000; Williams L, Germov J, Young A. Preventing weight gain: a population cohort study of the nature and effectiveness of mid-age women's weight control practices. *Int J Obes* 2007; 31:978–986; Tsai AG, Wadden TA. Systematic review: an evaluation of major commercial weight loss programs in the United States. *Ann Intern Med* 2005; 142:56–66; Katan MB. Weight-loss diets for the prevention and treatment of obesity. *N Engl J Med* 2009; 360:923–925.
16. Carter OB. The weighty issue of Australian television food advertising and childhood obesity. *Health Promot J Austr* 2006; 17:5–11.
17. Chapman K, Kelly B, King L. Using a research framework to identify knowledge gaps in research on food marketing to children in Australia. *Aust N Z J Public Health* 2009; 33:253–257.
18. Chapman K, Nicholas P, Supramaniam R. How much food advertising is there on Australian television? *Health Promot Int* 2006; 21:172–180.

---

## Public Health Bulletin

19. Scully M, Dixon H, Wakefield M. Association between commercial television exposure and fast-food consumption among adults. *Public Health Nutr* 2009; 12:105–110.
20. Lang T, Rayner G, Kaelin E. The food industry, diet, physical activity and health: a review of reported commitments and practice of 25 of the world's largest food companies. Centre for Food Policy, City University, London, 2006. <http://www.city.ac.uk/press/The%20Food%20Industry%20Diet%20Physical%20Activity%20and%20Health.pdf>.
21. World Health Organization, Commission on Social Determinants of Health. Closing the gap in a generation: health equity through action on the social determinants of health. Final report of the Commission on Social Determinants of Health. WHO, Geneva, 2008.
22. Turrell G, Stanley L, de Looper M, Oldenburg B. Health inequalities in Australia: morbidity, health behaviours, risk factors and health service use. *Health Inequalities Monitoring Series no. 2. AIHW cat. no. PHE 72*. Queensland University of Technology and Australian Institute of Health and Welfare, Canberra, 2006.
23. Rose G. Sick individuals and sick populations. *Int J Epidemiol* 1985; 14:32–38.
24. Caraher M, Cowburn G. Taxing food: implications for public health nutrition. *Public Health Nutr* 2005; 8: 1242–1249.
25. Food Standards Australia New Zealand. Proposal P293 – nutrition, health and related claims. <http://www.foodstandards.gov.au/standardsdevelopment/proposals/proposalp293nutritionhealthandrelatedclaims/index.cfm>; Magnusson R. What's law got to do with it? Part 2: legal strategies for healthier nutrition and obesity prevention. *Aust N Z Health Policy* 2008; 5:11. <http://www.anzhealthpolicy.com/content/5/1/11>.
26. Australia New Zealand Food Standards Code. Standard 1.2.8, Nutrition Information Requirements § 5. <http://www.foodstandards.gov.au/thecode/foodstandardscode/index.cfm>.
27. Food Standards Australia New Zealand. Code of practice on nutrient claims in food labels and in advertisements. January 1995. [http://www.foodstandards.gov.au/srcfiles/Code\\_of\\_Practice\\_jan1995.pdf](http://www.foodstandards.gov.au/srcfiles/Code_of_Practice_jan1995.pdf).
28. Mhurchu C, Gorton D. Nutrition labels and claims in New Zealand and Australia: a review of use and understanding. *Aust N Z J Public Health* 2007, 31:105–112.
29. Cowburn G, Stockley L. Consumer understanding and use of nutrition labelling: a systematic review. *Public Health Nutr* 2005; 8:21–28.
30. Australian Food and Grocery Council. Daily intake guide – labelling scheme, August 2008. <http://www.afgc.org.au/cmsDocuments/Daily%20Intake%20Guide%202008.pdf>.
31. Food Standards Agency. Traffic light labelling. <http://www.eatwell.gov.uk/foodlabels/trafficlights/>.
32. Food Standards Agency. Signpost labelling research. <http://www.food.gov.uk/foodlabelling/signposting/signpostlabelresearch/>.
33. Kelly B, Hughes C, Chapman K, Louie J, Dixon H, King L, on behalf of a collaboration of public health and consumer research groups. Front-of-pack food labelling: traffic light labelling gets the green light. Cancer Council, Sydney, 2008. <http://www.cancercouncil.com.au/nutrition/foodlabellingreport/>.
34. Cancer Council NSW. Shoppers show red light to confusing food labels. Media release, 30 September 2008. <http://www.choice.com.au/viewPressRelease.aspx?id=106539&catId=100582&tid=100010&p=1>.
35. Sanitarium's new labelling initiative! <http://www.nutritionlabels.com.au/howtoreadnutritionlabels/daily-intake.aspx>.
36. Front-of-pack labelling: an agreed public health position, Consensus forum hosted by Australian Chronic Disease Prevention Alliance, Sydney, 23 February 2009. [http://www.cancer.org.au/File/PolicyPublications/FOPL\\_Final\\_Consensus\\_Statement\\_23March09.pdf](http://www.cancer.org.au/File/PolicyPublications/FOPL_Final_Consensus_Statement_23March09.pdf).
37. The role of 'front-of-pack' nutrition labelling as part of the health strategies of Australia and New Zealand. Report to the Australian Population Health Development Principal Committee, 20 June 2008, pp 24–25.
38. Australian Food and Grocery Council. Cereal and food labelling misleading for parents. Media release, 6 April 2009. <http://www.afgc.org.au/index.cfm?id=817>.
39. Australian Food and Grocery Council. Shelving food labelling decision is sensible. Media release, 15 July 2009. <http://www.afgc.org.au/index.cfm?id=859>.
40. Mello MM, Pomeranz J, Moran P. The Interplay of public health law and industry self-regulation: the case of sugar-sweetened beverage sales in schools. *Am J Public Health* 2008; 98:595–604; Free TV Australia, Commercial Television Industry Code of Practice, 6 September 2007 (which supplements the Children's Television Standards 2005 (CTS) prescribed by the Australian Communications and Media Authority). <http://www.freetv.com.au/Content/Common/pg-Code-of-Practice.seo>.

## Rights in public health as constraints on power

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### Introduction

Public health practice relies on an armoury of approaches which may be either persuasive or coercive. International human rights standards and norms are traditionally portrayed as operating in opposition to conspicuously coercive public health activities like quarantine, immunisation and contact tracing. This apparent 'clash' between public health and human rights occurs only as a result of mischaracterisation of both fields. Instead, it is possible to see that public health and human rights seek to achieve the same ends and are natural partners in improving the quality of human life. Anecdotal evidence based upon over a decade of teaching health professionals suggests that few people in public health properly understand rights, and it is probable that even fewer people active in human rights have much comprehension of public health. Improved dialogue is essential if rights, as they apply to health, are to be properly understood and reflected in practice.

### Human rights

Although some of the classic human rights like the freedoms of speech, association and religion are concerned with preventing unnecessary incursions into individual liberty, modern international human rights law has a much wider scope. Today, rights operate across many fields and include rights to shelter, food, education and the highest attainable standard of physical and mental health. As a result of the broad ambit of human rights, it is common for different rights to come into conflict; for example, freedom of speech can easily conflict with the right to be free from racial vilification or gender discrimination. When rights conflict in this way, it is necessary to undertake a balancing exercise through which the best outcome can be discovered. This does not mean that rights are necessarily antagonistic, or that public health and human rights are opposed. Instead, it illustrates that the translation from theory into practice is an imperfect one which requires care on the part of practitioners.

To aid in that translation, the Siracusa Principles, developed by the United Nations' Economic and Social Council, provide criteria to judge the legitimacy of a proposed limit on human rights.<sup>1</sup> The criteria are that limitations must:

1. Be provided for by law—any limitation of a human right should be set out in laws which are available to the public for discussion.
2. Respond to a pressing public or social need—it cannot be in response to something trivial or unimportant.
3. Pursue a legitimate aim and be proportionate to that aim—for example, protecting the public from HIV is a legitimate aim for these purposes, whereas protection from the common cold may not be. No matter how important the aim, the response must not be disproportionate to the threat which exists, eg forced incarceration of all people living with HIV.
4. Be the least rights restrictive policy possible which still achieves its stated purpose—for example, quarantine of a locality should not be performed if quarantine of a single household will fulfil the relevant health purpose.

Only a few human rights are deemed important enough that any derogation from them is prohibited absolutely. These include rights such as:

- > freedom from torture and slavery
- > the recognition of every person before the law
- > the right to freedom of thought, conscience and religion
- > the prohibition of a finding of guilt for any criminal offence on account of an act or omission which was not a criminal offence at the time it was committed.

From this set of limitations it is clear that it is naive to suggest that human rights are in any way directly incompatible with proper public health practice. Rather, human rights standards and norms are constructed so that a right like the right to health can take precedence over others where the circumstances justify this. Thus, human rights law is not incompatible with the compulsory wearing of seatbelts or bike helmets. In each of those cases there is a legitimate aim being pursued for the public good which warrants the state overriding an individual's right to decide whether or not they wish to take various safety precautions.

Human rights standards and norms are not only relevant to the creation of law and policy; they are also, perhaps most relevant in respect of how laws and policies are applied. It is in practice that seemingly rights-compliant laws can become rights violating. A couple of examples centred on the exercise of the right to privacy are described below.

### The right to privacy—constraining public health practice

Privacy is a fundamental human right<sup>2</sup> which, through its support of individual autonomy, underpins human dignity. The human right to privacy is interpreted as including many diverse categories. One facet, information privacy, is protected under both state and Commonwealth legislation.<sup>3</sup> Together, these Acts establish a network of principles to protect the use of private information, including health information, both with and without the consent of individuals.

It is a common contention of public health researchers that privacy regulation impedes medical research. This claim is made by researchers who believe that scientific research is an overwhelming public good, and that to prevent medical researchers having unfettered access to registries, databanks and biobanks will prevent future scientific discoveries, therapeutic means of preventing illness and cures for disease. Such researchers claim that privacy legislation does more harm than good.

The drafters of privacy legislation have accepted these claims to some extent and have sought to balance the public interest in protecting privacy with that of promoting and facilitating health research. They have done so by giving human research ethics committees (HRECs) the power to waive the requirement for consent in research when the public interest in the research activity substantially outweighs the public interest in maintaining the usual level of privacy protection.<sup>4</sup> This scheme leaves to HRECs the job of performing the balancing exercise between individual human rights in the form of privacy protection and the public's health in the form of health research.

These provisions are not inconsistent with human rights standards. However, their application in practice can be problematic. The routine approval by an HREC of research which involves accessing large numbers of patient medical records without contacting any of the patients could be open to question. Although such research is typically approved only when patient information will be 'de-identified', nonetheless in the

first instance a researcher (or research nurse) has access to a patient's entire medical record, including those elements not relevant to the current research project. It is not always clear that the approval of such research represents a proportionate response to the legitimate aim of promoting health research, nor that it is the least restrictive means of promoting that aim.

The right to privacy also protects a person's right to choose not to undergo testing. The category of privacy that is relevant to testing is that of bodily privacy or integrity. In South Australia the Chief Executive of the Department of Health has the power to require that a person undergo testing if he or she believes that the person has a 'controlled notifiable disease' like HIV/AIDS or viral hepatitis.<sup>5</sup> Laws such as these are common throughout Australia and are, seemingly, consistent with the Siracusa principles and human rights standards and norms. The limitation of this right is here clearly provided for by law, and preventing the spread of dangerous diseases is an important aim that arguably cannot be achieved without some ability to test for the disease.

Whether or not the way the law is enforced is consistent with human rights, however, will depend upon the circumstances. The Chief Executive might order that certain populations, together characterised as men who have sex with men, be compulsorily tested for HIV. Such a move, although conceivably still consistent with the legitimate aim of limiting the spread of this disease, would clearly be disproportionate to the threat posed to public health in South Australia by such men. In this case human rights standards and norms provide a way to conceptualise, assess and critique the problematic enforcement in practice of an otherwise acceptable public health power.

### Conclusion

Human rights and public health approaches are not incompatible. Each seeks to protect and improve human life in some way, and to that end they represent complementary ideologies. Governments in Australia have the capacity to wield significant coercive public health powers, and human rights pose no barrier to the existence of such powers. Human rights standards and norms also provide a valuable means of evaluating the proper use of that power. Human rights are sufficiently malleable to be compatible with much of public health practice, but are also capable of responding to laws that may be unduly coercive or enforced in ways that are overly restrictive.

### References

- 1 Economic and Social Council. The Siracusa Principles on the limitation and derogation provisions in the international covenant on civil and political rights. ECOSOC, Geneva, 1985.
- 2 Article 12, Universal Declaration of Human Rights (1948); Article 17, International Covenant on Civil and Political Rights (1966).
3. For example, in Victoria the *Privacy Act 1988* (Cwth), *Information Privacy Act 2000* (Vic), *Health Records Act 2001* (Vic), *Freedom of Information Act 1982* (Cwth) and (Vic) all apply.
4. National Health and Medical Research Council. Guidelines approved under Section 95A of the *Privacy Act 1988* (Cwth), 2001.
5. Section 31, *Public and Environmental Health Act 1987* (SA).

## Criminalisation of HIV transmission: the unresolved tension between public health and criminal law approaches to those who put others at risk of HIV\*

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### Introduction

Australia's management of HIV is frequently cited as an example of the extraordinary results that a public health driven response can deliver—a best practice model for the rest of the world in relation to HIV,<sup>1</sup> and an example for Australia to apply to other preventative health conditions and diseases.<sup>2</sup> Whether measured in terms of successful community engagement, application of a sound evidence base, protection of human rights, or simply effective prevention, the results are broadly considered impressive. They are also fiscally sound, having delivered a substantial return on investment—the net benefits of education and prevention programs in 2000 prices (discounted back to 1984) being estimated at \$2.541 billion.<sup>3</sup> By 2000, needle and syringe programs alone had cost government some \$122 million but were projected to have saved between \$2 billion and \$7 billion, notably by preventing some 25,000 people from becoming infected with HIV.<sup>4</sup>

While public health rationale, policy and laws have guided the HIV response, HIV is not only a public health issue. It is managed through a complex web of laws and regulations covering a broad range of issues including HIV testing, notification of test results, confidentiality of HIV-related information, anti-discrimination requirements, responsibilities to prevent transmission, and management of those who put others at risk of HIV infection. Much of that regulation is found in public health law and policy, but significant portions of it are found in other areas of law including administrative, anti-discrimination and criminal law. This paper considers the 'intersection' (or failure of intersection) of public health and criminal law, particularly in relation to those people who put others at risk of HIV infection. It argues that Australia's HIV response risks being undermined by public health and criminal law experts' and advocates' failure to effectively grapple with the fallout from prosecutions for HIV exposure or transmission through sexual contact.

\* Note: Research for this paper was undertaken while developing work for the Australian Federation of AIDS Organisations, the Australasian Society for HIV Medicine, and the National Association of People Living with HIV/AIDS.

### HIV in Australia

The National Centre in HIV Epidemiology and Clinical Research estimates that, by the end of 2008, there were some 17 444 people living with HIV infection in Australia. Among cases of newly acquired HIV infection, male homosexual contact was reported in 86%, injecting drug use among women and heterosexual men in 1%, and heterosexual contact only in 10% (with exposure undetermined in 3%). The annual number of new HIV diagnoses peaked in 1987 and then steadily decreased until 1999 (718 cases). HIV diagnosis then steadily increased for a number of years but has remained steady at approximately 1,000 diagnoses each year for the past 3 years.<sup>5</sup>

The clinical manifestations of chronic HIV infection have changed dramatically since the mid 1990s as a result of combination antiretroviral therapy. Those treatments have significantly impacted disease progression and many people living with HIV now expect to live long lives—recent projected life expectancy for a person on optimal treatments is more than 35 years post-HIV infection.<sup>6</sup> However, that is not the whole story. While some have no or minimal symptoms, others experience debilitating conditions and illnesses, frequently as a result of treatment toxicities triggering incapacitating side effects. HIV diagnosis continues to have a profound effect on those diagnosed, and many struggle with HIV's unpredictability. The needs of people living with HIV have become increasingly complex as they have become longer term.

### The public health response to HIV

The Australian public health response to HIV is guided by the National HIV/AIDS Strategy and has primarily directed interventions at the population and subpopulation levels. It has relied on the delivery of targeted information, frequently developed and delivered by those from affected communities as well as by health professionals, and its capacity to trigger engagement and sustain behavioural change. The National HIV Strategy recognises that HIV prevention requires long-term sustained behaviour modification to be exercised through choices made across different circumstances throughout a lifetime. Moreover, it involves adopting and sustaining practices that require preparation and effort (e.g. acquiring and using clean needles, syringes and condoms). In many instances, mitigating or denying sexual pleasure is required, either through condom use or by abstinence or disclosure, with its capacity to trigger rejection.

Despite the 'big ask', this commitment to health promotion and harm minimisation, developed through application of a sound evidence base (including analysis of community commentary and behavioural and surveillance data), has paid off. The estimated adult HIV prevalence in Australia is now approximately one-sixth that of the United States and one-third that of Canada and France.<sup>7</sup>

In addition to broad health promotion and harm minimisation strategies, individual HIV responses are largely driven by GP or nurse interactions with patients. Laws and guidelines stipulate confidentiality of notification data (through agreed coding), confidentiality of medical/health records, and mandatory pre- and post- HIV test discussion by medical professionals. Importantly, public health provisions also address mechanisms to be applied to those who place others at risk of HIV infection. These staged interventions, designed to facilitate behavioural change, are frequently supportive although sometimes coercive, for example by restricting behaviour or (as a last resort) imposing detention. It is important to note that the number of individuals to whom these mechanisms apply at any one time is very small.

### Prosecutions for HIV exposure and transmission

Simultaneously with the public health response, criminal law provisions have been applied to a few individuals for HIV transmission or HIV exposure (without transmission). Unfortunately, analysis of those prosecutions has been hindered by a number of factors. First, there is no agreed process, key agency or centralised mechanism for monitoring the issue. Case identification is ad hoc, often arising as a result of media reportage, with subsequent lack of detail and accuracy. Second, most trials occur in lower courts, so transcripts are frequently not available. Third, crimes are defined by multiple criminal laws in each of eight jurisdictions, making collation and comparison of data challenging. Moreover, cases are managed by eight police and eight prosecution agencies, precluding uniformity of understanding and approach.

The best efforts to date (facilitated by the work of the Australian Federation of AIDS Organisations, the National Association of People Living with HIV/AIDS and their partners)<sup>8</sup> put the number of Australian prosecutions for transmitting HIV or exposing others to HIV through sexual contact at 22. Three additional cases involve charges laid but later dropped or

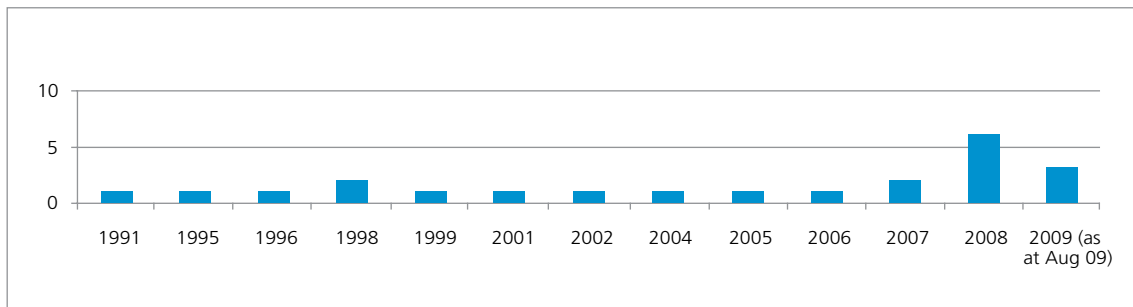


Figure 1: Australian HIV exposure/transmission prosecutions (by year)<sup>12</sup>

dismissed. Fourteen of the 20 cases concluded by August 2009 resulted in a guilty verdict,<sup>9</sup> and four of those verdicts were the result of a 'guilty' plea by the accused. All accused have been men; however, charges have related to sexual acts with men or women. Some prosecutions have included charges relating to more than one 'victim'. These prosecutions raise a number of concerns, as follows.

**Prosecutions are occurring with increasing frequency**

The first HIV transmission/exposure case to proceed through a committal hearing was that of a man charged in 1992 (notably a decade after AIDS was first diagnosed in Australia), although the accused died before completion of the trial. The three cases that followed resulted in 'not guilty' verdicts or acquittal on appeal.<sup>10</sup> Guilty verdicts then followed on exposure and transmission charges from 1998 until 2007, after which both guilty and not guilty verdicts have been recorded.<sup>11</sup> Cases have recently been occurring with greater frequency (Figure 1).

**Prosecutions are occurring across more jurisdictions**

A disproportionate number of prosecutions (more than half) have been undertaken in Victoria over some 16 years (seven prior to 2001<sup>13</sup> and a further five since 2007), a factor not yet well researched or considered. However, prosecutions have now been held in six of Australia's eight jurisdictions—since 2004 in New South Wales (NSW), 2005 in Queensland and 2008 in the Australian Capital Territory (Figure 2).

**Prosecutions are being applied against an increasing range of circumstances**

As the number of prosecutions has increased, so too has the range of circumstances in which criminal charges have been laid and the range of legal issues considered.<sup>14</sup> Cases now include instances of transmission or exposure to men and women, during casual and committed relationships, and during new and long-term relationships. Some offenders had previously come to the attention of public health officials while others had not. Some accused clearly lied about their HIV status (including forging documents), while in other instances it was difficult

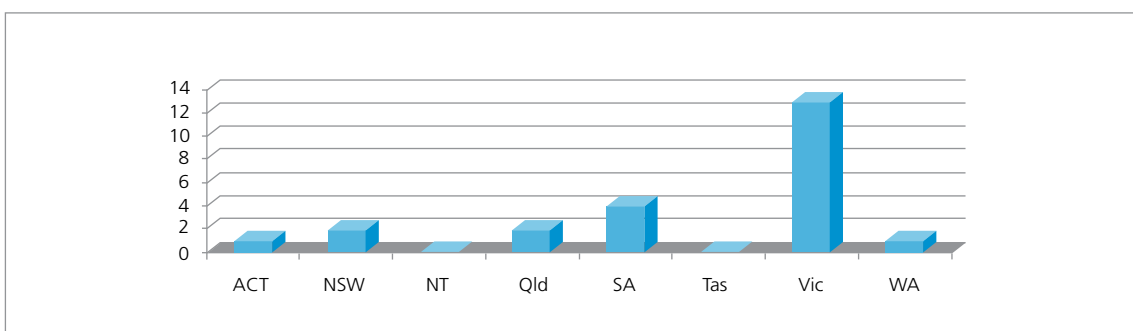


Figure 2: Number of HIV exposure/transmission prosecutions by state/territory

to establish whether the accused had lied. In some cases transmission occurred recently, while in others it occurred many years ago. Recently, because there is no statute of limitations on serious crimes (generally those to which jail terms apply), two cases were pursued involving transmission a decade ago or longer. Notably, one was convicted despite the two parties having married 5 years after the woman had been infected and diagnosed. This broadening of cases has raised the possibility that prosecutions may be pursued against individuals in an ever-increasing set of circumstances.

### Undermining public health initiatives

The application of criminal law to cases of HIV transmission is highly problematic, particularly as prosecutions intersect with public health strategies. Criminal prosecutions undermine public health initiatives in several ways, as follows.

#### **Negation of public health's mutual responsibility message**

All Australian prosecutions to date have successfully maintained the premise that HIV-positive people must disclose their HIV status (despite disclosure being a legal requirement in only two states and a defence to specific criminal charges in two others). That argument creates a false sense of expectation (and hence a false sense of security) that HIV-positive people will disclose,<sup>15</sup> and facilitates the waiving of responsibility by those who believe themselves to be HIV-negative. That message is dire, particularly when applied against the estimate that some 30% of people who transmit HIV are unaware of their HIV status.<sup>16</sup> Placing legal responsibility for HIV prevention exclusively on those already living with HIV weakens the public health message of shared responsibility for sexual health between sexual partners.

#### **Reduction in trust in health care practitioners**

There is growing awareness that the confidentiality provisions applying to medical and associated health records are not absolute, and that health care practitioners may be called to give evidence against former patients. There is also some fear that health care practitioners may report a patient to a health department or to police on the basis of risk behaviours or the presence of sexually transmissible infections. The possibility of criminal sanctions makes people living with HIV less likely to seek support or disclose information about risky behaviour, or to disclose behaviours and seek treatment for symptoms from

a single service provider, thereby undermining the advantages of consistency of care. Despite those fears being largely at odds with current practice, the resulting distrust impedes the open therapeutic relationship that has proven fundamental to HIV treatment and prevention, and consequently affects both the quality of care afforded to the individual and the health practitioner's role in impeding HIV transmission.

#### **Spreading of misinformation about HIV**

HIV prosecutions impact the general public's understanding of HIV. This is particularly so given media interest in the salacious details of trials and the lack of coverage of any other stories relating to HIV in Australia. Witnesses' evidence is reported, whether or not it is corroborated, subject to cross examination (e.g. presented during committal hearings), or accepted as accurate by the court. Similarly, there is no guarantee of the quality of scientific and behavioural evidence presented, or the HIV-related expertise of judges and magistrates presiding and making judgements. In recent cases in the US and Canada, HIV-positive people have been ordered to wear masks in court and have been convicted of HIV-related criminal offences for spitting, scratching or biting despite these behaviours carrying an extremely low or no risk of transmitting HIV. Australia has not been completely spared, with HIV transmission erroneously associated with biting as recently as 2008,<sup>17</sup> and phylogenetic 'evidence' of one person's infection of another described as a '100% probability'<sup>18</sup> despite the science of phylogenetics being unable to support such a conclusion.

#### **Creating a disincentive to be tested**

While untested in the Australian context, there is some argument that the prospect of stigma and discrimination contributes to reluctance to be tested for HIV, with the possibility of criminal sanctions an additional disincentive (although failure to have HIV status confirmed is not necessarily a defence against criminal charges—that issue has not yet been tested in Australia). The consequences of an HIV-positive individual's failure to be tested has negative consequences both for the individual's wellbeing and for the potential to interrupt HIV transmission.

#### **Increasing stigma against people living with HIV**

While media reportage of HIV-related prosecutions has been about a very small number of individuals in the context of legal action, that media impacts public

perceptions of 'who HIV-positive people are'. HIV-related prosecutions reinforce stigma based on the 'otherness' of all HIV-positive people.<sup>19</sup> Such stigma not only makes it difficult for individuals to come to terms with and manage their illness, but undermines prevention efforts, as willingness to be tested and seek treatment has a profound impact on the course of the HIV epidemic.

### The challenge of devising a cohesive HIV strategy

If one starts from the premise that HIV requires some form of regulatory intervention, a public health response based on community engagement and protection of human rights far outweighs a punitive, criminal law response. Australia's public health framework considers the norms of human behaviour but also the context in which sexual relationships occur. Relationships are understood as occurring between partners, with behaviours considered in terms of agency and shared responsibility—regardless of sero-status. In those instances where people experience difficulty modifying their behaviour to minimise HIV transmission, a series of interventions are available that provide significant support before moving to regulation or control of behaviours.

Alternatively, criminal law (which by default requires a 'crime') regards sexual relations in terms of endangerment and injury, and sets up an adversarial relationship between aggressor and victim. The application of criminal law to HIV transmission fails 'to capture the various and complex meanings of HIV infection'.<sup>20</sup> It largely ignores the impressive body of expert behavioural evidence that informs understanding of risk-taking behaviours. It considers only 'innocence' or 'guilt', misrecognises HIV as injury and danger,<sup>21</sup> and constructs the 'harm' of HIV as no different from being beaten or poisoned. And yet, as Matthew Weait pointedly asks, 'Is this the experience of infection?'<sup>20</sup>

Fortunately, in Australia we are not faced with an 'either public health or criminal law' scenario. Public health continues to drive the HIV response, with criminal prosecutions few and (relatively) far between; however, the impact of HIV-related criminal prosecutions on the goals of the public health approach should not be underestimated. Essentially, HIV-related criminal prosecutions (particularly escalating numbers of prosecutions 'unchecked' by public health understandings) undermine the rationale and the authority of Australia's official National HIV Strategy.

Fuller discussion and contemplation is urgently required on ways in which public health and criminal law mechanisms can coexist. The clearest example to date is the research<sup>22</sup> informing the drafting of National guidelines for the management of people with HIV who place others at risk'.<sup>23</sup> This was a public health driven effort that included consideration of the divide between public health and criminal law, and a recommendation that protocols be developed to facilitate the exchange of information to ensure appropriate division of health and law enforcement responses. State-based protocols are slow to emerge.

What is missing is genuine, multi-sector engagement with the difficult issues at hand, particularly effective contributions from those working in criminal law in terms of the social meaning of prosecutions. Admittedly, that is a tricky question given the lack of research on the impact of HIV prosecutions;<sup>24</sup> however, that work needs to be done. Criminal law is, after all, a social construction—laws are developed and case law is made in response to social norms and expectations. Consider the enormous rethinking and development of legislative responses around sexual assault, stalking and domestic violence that took place through the 1970s and 1980s. Moreover, policing has long included discretionary application of certain laws, including those applying to 'difficult', morally loaded issues such as abortion and sex work (the policing of the latter in some Australian states being so removed from formal legislative requirements that it was/is referred to as 'containment policy').

How does HIV transmission fit in this construction? Prosecutions do not reflect the Australian HIV epidemic. They have increased at a time when the harms associated with HIV diagnoses have, in most instances, decreased. Moreover, the profile of those involved in prosecutions is incongruous with basic HIV epidemiology, with African men greatly over-represented as assailants and women over-represented as victims. More work needs to be done to unravel why certain complainants complain, and why police and prosecution offices pursue particular cases.

There is no doubt that social and cultural filtering informs understanding of HIV. In the first instance the criminal law machine—those working within the system—interprets HIV differently from other diseases (e.g. the various forms of hepatitis, herpes, influenza, mumps), as infection with HIV has been considered the only infectious disease worthy of prosecution.

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But, more importantly, HIV prosecutions inform the construction of HIV, particularly public perception of what HIV and HIV infection mean, and whether prosecution for HIV infection is a valid course of action. As prosecutions have become more frequent, those working in HIV services have become unsettled by the increasing number of questions about the possibility/probability of prosecution (as complainants/victims or accused) from their clients.

A strong, cohesive HIV response need not preclude HIV-related prosecutions per se, but those currently involved in Australia's HIV response should consider what circumstances of HIV transmission might be defined as criminal, and ensure that those understandings are part of an ongoing dialogue that informs the development of an appropriate criminal law response. Perhaps in the drive to keep public health separate from criminal law, a practice fundamental to the effective administration of public health management, public health policy expertise has had little time for engagement with the criminal law agencies concerned. That need not be the case; for example, in the UK public health policy expertise informed policing and prosecutorial guidelines on their approaches to HIV exposure and transmission cases.

The United Nations Joint Program on AIDS argues that, while prosecutions may be warranted in cases of intentional transmission, they should not be pursued in cases of reckless or negligent transmission, or exposure without transmission.<sup>25</sup> This is at odds with Australian criminal laws and prosecutions to date. Australia's HIV response requires that development of thinking within the criminal justice system is informed by the broad HIV response, including HIV epidemiological and behavioural research and public health practice. That can only occur through high-level dialogue and the allocation of time and resources to the task. Current prosecutions for HIV exposure and transmission may not be informed by Australia's HIV response, but they do not sit outside that response. Their impact is being keenly felt.

### References

1. For example, see Australian Department of Health and Ageing, 'HIV/AIDS Strategy: revitalising Australia's response 2005-2008', Commonwealth of Australia, Canberra, 2005.
2. For example, see Preventative Health Taskforce, 'Australia: the healthiest country by 2020', Canberra, 2008.
3. Abelson and Applied Economics. Returns on Investment in public health. Department of Health and Ageing, Canberra, 2003.
4. Commonwealth Department of Health and Ageing. Return on investment in needle and syringe programs in Australia. Australian Government, Canberra, 2002.
5. National Centre in HIV Epidemiology and Clinical Research. HIV/AIDS, viral hepatitis and sexually transmissible infections in Australia. Annual Surveillance Report, Sydney, 2009.
6. The Antiretroviral Therapy Cohort Collaboration. Life expectancy of individuals on combination antiretroviral therapy in high-income countries: a collaborative analysis of 14 cohort studies. *Lancet* 2008; 372:293.
7. Commonwealth of Australia. National HIV/AIDS Strategy: revitalising Australia's response 2005–2008. Australian Government, Department of Health and Ageing, Canberra, 2005.
8. In particular, my thanks to Associate Professor Peter Rush, Faculty of Law, University of Melbourne for his endeavours attempting to calculate prosecutions to date.
9. See notes on 'appreciable risk' responsible for persons being found not guilty in three early cases.<sup>10</sup>
10. Groves M. Risky behaviour, risk assessment and the criminal prosecution of positive people. *HIV Australia* 2008; 6(4).
11. For a table providing a brief overview of cases see Cameron S & Rule J, 'Australian prosecutions for HIV transmission or exposure', in *Legality, morality, reality: the criminalisation of HIV transmission in Australia*. National Association of People Living with HIV/AIDS (NAPWA), Sydney, 2009.
12. Dates generally refer to the judgement on the initial prosecution (not to appeals which were decided later), except for the 1991 case where committal proceedings were concluded but the person died pre-trial, and three 2009 cases which have not yet been decided.
13. Not including two sets of charges laid in 1991, later dismissed.
14. See Groves A & Cameron S, 'Criminal prosecution of HIV transmission: the policy agenda', *Australian Federation of AIDS Organisations*, Sydney, 2009, pp. 4–5.
15. Dodds C, Weaterburn P, Bourne A, Hammond G, Weait M, Hickson F, Reid D, Jessup, K. Sexually charged: the views of gay and bisexual men on criminal prosecutions. Sigma Research, UK, 2008.

16. Wilson D, Hoare A, Regan D, Wand H, Law M. Mathematical models to investigate recent trends in HIV notifications among men who have sex with men in Australia. National Centre in HIV Epidemiology and Clinical Research, Sydney, 2008. (For an overview of key Australian behavioural research on this issue see De Wit et al in 'Legality, morality, reality: the criminalisation of HIV transmission in Australia, NAPWA, 2009.)
17. In Brisbane in January 2008, an HIV positive man struggled and bit a police officer during an arrest for public drunkenness. The man was charged with serious assault, to which he pleaded guilty. Despite the bite not breaking the police officer's skin, the judge handed down a 12-month sentence, stating: 'When I first became a judge ... it was unheard of for anyone to bite or spit on a police officer but in recent years I have had to deal with many, many cases ... There are now diseases in the community which are spread like this.' In Cameron S, 'Criminalisation of HIV transmission and exposure – risk, negotiation and consent', HIV Australia 6(3), Australian Federation of AIDS Organisations, Sydney, 2008.
18. Edminstone L. Accused of infection with HIV. Courier Mail, Brisbane, 23 April 2007.
19. For example, the stigmatising effects of such media coverage on the broader population of HIV-positive people have been noted in Canovan, P, Kidd, P & Rule, J, 'Sex crime: two men jailed for transmitting HIV', Positive Living, NAPWA, Sydney, 23 April 2007.
20. Weait M. Intimacy and responsibility: the criminalisation of HIV transmission. Routledge-Cavendish, London and New York, 2007.
21. Rush P. 'HIV transmission and the jurisdiction of criminal law', in Legality, morality, reality: the criminalisation of HIV transmission in Australia, NAPWA, Sydney, 2009.
22. Griew R, Russell L, Buchannan D. Review of policies for the management of people with HIV who risk infecting others. Submitted to the Blood-borne Virus and STI Subcommittee, Australian Population Health Development Principal Committee, Canberra, 2007.
23. Australian Health Ministers' Conference, Canberra, 2008.
24. At this point it is appropriate to note that UNAIDS is currently tendering for research bodies to develop options for proposed scope and methodologies for research on the impact of the application of criminal laws in the context of HIV.
25. UNAIDS and UNDP 'UNAIDS/UNDP Policy Brief: Criminalization of HIV transmission', Geneva, 2008.

## Public health law and private interests: a brief history of the politics of state health regulation

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### Introduction

At first glance, public health law may be seen to be uncontroversial and objective, setting in place structures and population-level responses directed towards the maintenance and improvement of the health of all people. Public health, being a collective approach, naturally suits the legislative process, which in this area has historically tended to be reactive:

*'Governments typically respond to crises by passing remedial legislation and this is a particular feature of public health legislation.'*<sup>1</sup>

More recent public health legislation is moving towards a more proactive response but, whether reactive or proactive, it would seem to be an uncontroversial enterprise. However, history has shown this to be far from the case. Public health law has often been controversial; legislation has been passed in the teeth of strong opposition; there has been a strong backlash against public health measures, often from vested interests; and public health law has involved a complex series of interests not obviously reconcilable with the public health agenda. In fact, public health has often had strange bedfellows. Some of the reforms that have been achieved historically have among them the filaments of other, rather less laudatory, interests. This paper presents some historical examples to illustrate the complex tapestry that is public health.

### Public health responses to industrialisation—the genesis of public health law

The origins of public health law are typically traced back to the English Public Health Act of 1848. Rosen argues that modern public health began as a response to the evils of industrialisation.<sup>2</sup> The term 'public health' was coined at this time to distinguish the actions of

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governments and societies, as opposed to those of private individuals, in protecting and preserving the people's health.<sup>3</sup> One of the major architects of the 1848 Act was Edwin Chadwick who, for his pains, became 'one of the most hated men in Britain'.<sup>4</sup> The 1848 Act was a governmental response to the squalid, fetid and dangerous living conditions in major cities and towns as a result of changes wrought by rapid industrialisation. Nineteenth century Britain saw a massive population explosion and a rapid urbanisation. There was a shift from a basically rural society to a predominantly urban one as the industrial revolution took hold and the market economy was created. Factories were built with no consideration for pollution or waste disposal, and cheap low-quality housing was thrown up to accommodate the new industrial workforce. Sanitation of any sort was not a consideration.

*'In Greenock, for example, a town of almost 50,000 inhabitants in the mid 1860s, most houses lacked any toilet facilities whatsoever. "The common method of getting rid of refuse in houses is by depositing the contents of chamber vessels with ashes and other filth in the roadway between the hours of 10pm and 8am. For the fourteen hours of the daytime, such matters have to be voided and retained inside the close and crowded rooms." (Buchanan G. Report on Epidemic Typhus at Greenock, 1866). In Glasgow in 1870 over 40 per cent of the population lived in houses without water closets while in Manchester only 10,000 of the 70,000 houses had them.'*<sup>5</sup>

And, of course, similar or worse conditions existed in the cities springing up across the newly industrialising societies. Clean water was also a problem. Supply was far from adequate, with water drawn from local pumps and often contaminated. In addition, there were also laws in some towns making it an offence to draw water on Sunday!<sup>5</sup> As a result, infectious diseases were endemic and life was, to quote Hobbes, 'nasty, brutish and short'.<sup>6</sup>

The work of William Farr, the Compiler of Abstracts at the General Register Office, was seminal, along with John Snow, anaesthetist and epidemiologist, in drawing the relationship between these squalid conditions and disease and mortality. Farr used the statistics he collected to show a relationship between population density and mortality, and further that country districts were more healthy than towns. For example, Farr calculated that, over the period 1851–1860, almost

65 000 children's lives were lost unnecessarily in the unhealthy districts of England.<sup>7</sup> This could be said to have provided the ammunition needed for later campaigns to improve public health. There was a merging of awareness of the public health impacts of the conditions of people's lives and also an interest in doing something about them.

Edwin Chadwick was no philanthropist but, in fact, a very efficient bureaucrat. His work on the 1834 Poor Law Amendment, of which the 1848 Act was a continuation, was aimed at cutting the costs of poor relief by preventing a major cause of poverty—acute infectious diseases that killed the male breadwinner. He believed these diseases to be caused by air contaminated as a result of poor drainage—the miasma theory of disease causation. While the theory was incorrect, Chadwick's solution was nevertheless the correct one. There needed to be new technologies to enable installation of sewers and piping for clean uncontaminated water, and there also needed to be adequate legal and administrative structures to get them built.

Chadwick faced enormous opposition, not simply because of his well-recorded abrasive personality and peremptory actions. The reforms being introduced, which without a doubt resulted in massive improvements in the health of the public once they were implemented, interfered with what people viewed as the rights and freedoms of a free-born Englishman. This attitude can be gauged by a leader in *The Times* when, in 1854, Parliament refused to renew the Public Health Act:

*'Aesculapius and Chiron in the form of Chadwick and Dr Southwood Smith [a fellow member of the Board of Public Health] have been deposed and we prefer to take our chance of cholera and the rest than be bullied into health.'*<sup>5</sup>

Opposition to Chadwick's reforms came from many sources. The general population abhorred the idea of communal sewers; landlords objected to laws requiring that houses be sewered; and factory owners objected to laws preventing the discharge of whatever toxins they wished into the air. As Rosen says:

*'From the beginning, the activities of the Board of Health encountered the opposition of vested interests. Even its most elementary proposals for the improvement of drainage and water supplies were opposed in the sacred names of property and human freedom.'*<sup>2</sup>

Importantly, these reforms required vast amounts of public money and a reorganisation of the state. Chadwick challenged the laissez-faire attitude of the time. While the government became increasingly charged with the task of maintaining conditions required for economic development, the values of liberalism, on which the economic system was based, were compromised by these developments—for liberalism maintains that individual self-interest regulated through a free market would realise all social needs. Thus, since the 19th century, the modern interventionist state has become the site of a struggle between the values of individual freedom and public good.

### Nationalism, racism and fascism—and public health

The concerns for clean, healthy environments and the prevention of communicable diseases which proliferated in unsanitary conditions continued to be abiding issues for policy-makers and legislators. The public health reforms effected through the second half of the 19th century, of which those outlined above were the beginning, did not of themselves produce immediate improvements in the nation's health, as measured by morbidity and mortality decline.<sup>1</sup> Thus, the turn of the century saw a strong concern for further reforms to improve the health of the population, increase population numbers and also deal with the falling birth rate. The motivations for this were quite mixed—in Britain there were concerns for national security, and in Australia and America this concern also had distinctly racist and even strongly authoritarian overtones.

In 1903 the Committee on Physical Deterioration was established in Britain, the motivating force for which was the need for an army to fight in the Boer War. This was largely due to political fallout as a result of the fact that around 40% of recruits for the British Army at that time were found to be physically unfit for service.<sup>8</sup> The Physical Deterioration Report stated:

*'With regard to physical degeneracy, the children betray a most serious condition, calling for ameliorative and arrestive measures...'*<sup>9</sup>

The report went on to castigate parents for 'apathy as regards schools'.<sup>9</sup> The committee came down heavily in favour of environmentalist explanations of physical unfitness. Their report made numbers of recommendations for policy responses in the form of various public health measures, including regulations for school health programs and preventing children's access to tobacco.

The committee's concern for a virile population in the defence of the nation was also expressed in a focus on infant mortality and the declining birth rate. For similar reasons this focus was also reflected in Australia, where, as well as nationalist overtones, there were strong racist elements. The concern about the ever-present menace posed by Asia raised questions about not just the birth rate but the state of the public's health. The Royal Commission into the Decline of the Birth Rate in 1903 in New South Wales was evidence of this concern. This was followed in 1907 by the Commonwealth Royal Commission on Secret Drugs Cures and Foods, the main instigator of which, Octavius Beale, was motivated by the falling birth rate.<sup>10</sup> His motivations were both nationalistic, in that he was concerned about maintaining the Anglo-Saxon nation in the face of migration,<sup>10</sup> and moralistic in his opposition to abortion.<sup>1</sup> The Royal Commission, which may be seen as one of the first attempts at food regulation, came down strongly against readily available preparations associated with deliberate or accidental infanticide and drugs used as abortifacients,<sup>1</sup> rather than actual food.

Prominent public health officials in Australia in the 1920s and 1930s pursued public health policies which, in retrospect, moved past public health and even national security concerns, and 'to a later generation of critics, sit uncomfortably close to fascism.'<sup>1</sup> These officials were promoting the widespread vitalist health movement, whose concerns were with a vital, healthy and efficient population. This focus was expressed in the founding of organisations such as the Racial Improvement Society, later the Racial Hygiene Association of New South Wales, which finally became the NSW Family Planning Association.<sup>11</sup> As Powles noted in his discussion of Australia's national hygienists:

*'... it is clear that it [their world view] did share a good deal in common with fascism - a strong naturalism, a racism more strongly linked to sense of nation than to scientific analysis of racial characteristics, a related view that the struggle for supremacy between races was close to the centre of the historical process and, finally, a sense of the possibility of a breakthrough to a more exalted form of existence.'*<sup>12</sup>

These attitudes, while clearly containing strands concerned with the betterment of the health of the population, also had strands which can only be seen as inimical to that aim. Public health is fundamentally about respect for the individual—it takes a population approach but that is because there is a concern for the individual.

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### Public health response to infectious disease—immunisation

The control of infectious disease has always been the concern of public health policy and public health law. Immunisation against infectious disease is one of the 10 great public health achievements of the 20th century, having eradicated smallpox, virtually eliminated polio and dramatically reduced morbidity and mortality from vaccine-preventable diseases, at least in the developed world.<sup>13</sup> Despite this, immunisation has historically been another area of contested territory in public health, with opposition on many grounds. These have ranged from objection to perceived harmful effects of the vaccine to objection to unwarranted interference with individual autonomy, liberty and freedom of choice.

Immunisation poses unique issues for public health as individual choice can affect community safety. Immunisation relies on extensive coverage of the population. So long as the majority of the population opt for immunisation there is still protection for the few who refuse—there is ‘herd immunity’. However, if too many individuals opt out, the whole population becomes vulnerable to the disease.

How then should the state resolve this conflict between the public good and the rights of individuals to determine the scope and method of their own medical treatment? While compulsion to immunise is not part of the current strategy, historically this was the path taken in the first public health law directed against smallpox, and it resulted in substantial civil disobedience campaigns.<sup>14</sup> And this is not to say that it may not again be a strategy that the state may feel obliged to adopt in the face of new disease threats. In response to the swine flu outbreak in America in 1976, which was initially among army recruits, an ambitious campaign to immunise the American population was instituted. However, amid major controversy and reported adverse health effects and deaths attributed to the vaccine, the program was brought to an abrupt end. As Gostin points out, this was policy-making in ‘circumstances of uncertainty’<sup>13</sup>—about the extent and spread of the epidemic, the ability to institute such a massive public health campaign and the safety of the vaccine. It raises the question of how the state should act, in the face of uncertainty, to protect the health of the population—with excess caution, with aggressive intervention, or somewhere in between these extremes?

### Public health response to infectious disease—surveillance

Public health surveillance and reporting—the systematic monitoring of the distribution of trends, risk factors, injury and disease—is the cornerstone of public health. In this aspect of public health the work of Snow and Farr discussed above was seminal. The state has constitutional authority under police powers to mandate reporting on a wide range of diseases, injuries, risk factors and other health conditions. While vital for protecting the public’s health, this poses a significant threat to individual rights and privacy. It is more controversial with some conditions, for example HIV/AIDS, where initially the diagnosis resulted in discrimination and isolation of the individual concerned. Of relevance to this issue is the question of whether chronic disease surveillance should follow the path of infectious disease surveillance. New York City, for example, has adopted an aggressive diabetes surveillance program that necessitates the involvement of public health officials in clinical practice and patient compliance.<sup>13</sup> This has faced opposition from civil libertarians and health providers, believing it interferes with patient autonomy and privacy, as well as with clinical freedom.

### Public health response to chronic disease—tobacco control legislation

The state has a strong interest in tobacco control as tobacco-related illnesses cost the health sector and the community dearly. But legislative interventions associated with tobacco control have brought cries of ‘nanny state’, suggesting that people should be allowed to make their own decisions, even if these decisions are detrimental to their health, and not be coerced by an overly interventionist state. This opposition from the community has been minor, however, when compared to the opposition by vested interest—the tobacco industry.

Tobacco control is one area of public health law where reforms have been won in the face of fierce opposition from the corporate sector in the interests of an industry whose product has long been known to adversely affect the population’s health. The tobacco industry has made extensive use of legislation to counteract public health law aimed at controlling and minimising tobacco use. Tactics include pre-empting legislation by devising voluntary codes of conduct; promoting legislation which is likely to be ineffective; engaging in extensive legal proceedings; using the law to counter regulatory initiatives; and intimidation through the courts.<sup>15</sup> In this

opposition by the tobacco industry can be heard an echo of the opposition to the very first public health laws as being intrusive on the rights of landlords and factory owners, threatening their rights and their profits.

In the face of this opposition, significant steps have been taken to control the public health threat through a robust legislative response. The achievements in this area provide a good example of how public health thinking can drive legislative policy and vice versa. This is a lesson worth learning again and again. While the tobacco industry may be said to have lost the main battle, there are other contestants with whom the battle is just beginning to be waged. Obesity and alcohol-related harm are the newly contested areas of public health threat, and the fast food manufacturers and the alcohol industry are the new contestants.

### Conclusion

While this is not in any way a comprehensive history of the movements and currents in public health, highlighting a few examples from the past gives some sense of the complexities surrounding public health law and the diverse interests helping to shape it. Public health has moved forward in spite of significant opposition from a variety of fronts. Through legislative struggle, various public and private interests have made themselves felt, as expected in an area where such interests will always come into contact and, often, into conflict. In such an environment legislation will characteristically reflect a resolution of conflicts as well as a public health benefit.

### References

1. Reynolds C, cited in Australian Institute of Health Law & Ethics. *Public health law in Australia: new perspectives*. Canberra, 1998.
2. Rosen G. *A history of public health* (expanded edn). John Hopkins University Press, London, 1993.
3. Krieger N, Birn AE. A vision of social justice and the foundations of public health: commemorating 150 years of the spirit of 1848. *Am J Pub Health* 1998; 88: (11)1603–1606.
4. Speech by Aneurin Bevan to mark the centenary of the 1848 Public Health Act, 7 May 1948. <http://www.sohealth.co.uk/history/pioneers.htm>.
5. Holland WW, Stewart S. *Public health: the vision and the challenge*. Nuffield Trust, London, 1998.
6. Hobbes T. *Leviathan*. Oxford University Press, Oxford, 1996.
7. Whitehead M. William Farr's legacy to the study of inequalities in health. *Bulletin of the World Health Organization* 2000; 78(1).
8. Garrett E, Galley C, Shelton N, Woods R (eds). *Infant mortality: a continuing social problem*. Aldershot and Burlington, Ashgate, 2007.
9. Report of the Inter-Departmental Committee on Physical Deterioration 1904. Cited in Evans E (ed), 'Social policy, 1830–1914: individualism, collectivism and the origin of the welfare state'. Routledge & Kegan Paul, London, 1978.
10. Australian biography online. <http://adbonline.anu.edu.au/biogs/A070224b.htm?hilite=beale%3Boctavius>
11. [http://en.wikipedia.org/wiki/Racial\\_Hygiene\\_Association\\_of\\_New\\_South\\_Wales#cite\\_note-adb.online.anu.edu.au-0](http://en.wikipedia.org/wiki/Racial_Hygiene_Association_of_New_South_Wales#cite_note-adb.online.anu.edu.au-0)
12. John Powles. Naturalism and hygiene: fascist affinities in Australian public health, 1910–1940. Paper for conference on 'Attractions of fascism', University of New South Wales, 24–25 July 1987.
13. Gostin LO. *Public health law* (2nd edn). University of California Press. 2008.
14. Reynolds C. *Public health law and regulation*. The Federation Press, Sydney, 2004.
15. Tobacco in Australia: a comprehensive online resource. <http://www.tobaccoinaustralia.org.au/chapter-10-tobacco-industry/10-19-tobacco-industry-lobbying-overview>.

### State interference with liberty: utilitarian justifications for public health interventions

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#### Introduction

The restriction of personal liberty by the state in response to a public health threat can be justified by the utilitarian need to protect society. This rationale has underpinned public health legislation, granting the government a variety of powers to intrude on personal liberties ranging from regulation of employment to quarantine of individuals suffering from a notifiable disease. Although coercive powers to safeguard the community are undoubtedly necessary, modern approaches to public health law that favour proportionate and non-discriminatory exercise of powers have attempted to also respect individual interests.

#### Utilitarianism and liberty

Public health interventions tend to be justified on utilitarian principles that enable individual interests to be sacrificed to safeguard the health, lives and happiness of the greatest number of people. Coercive public health interventions to protect the public from infectious disease have been prevalent throughout the history of South Australian legislation, such as the quarantining of 'defiant' citizens on Torrens Island during the smallpox outbreaks of 1913.<sup>1</sup> Likewise, the need for coercive powers was of paramount concern during the parliamentary debates regarding powers to detain people with HIV infection during the early years of the HIV/AIDS epidemic.<sup>2</sup> These measures are legally justified—while personal liberty is a fundamental right protected by implication by the Constitution, public health powers exercised for the welfare and safety of society take priority above the protection of the individual's right to freedom.<sup>3</sup> Benefit to both the individual and society is the ideal conclusion of a public health intervention. For example, the introduction of legislation to encourage seatbelt use both provided increased safety to individuals and lessened the burden on the public health and welfare system.<sup>4</sup> In order to achieve this ideal outcome, society owes people affected by public health interventions a corresponding ethical obligation to provide medical treatment and adequate care.<sup>5</sup>

Although utilitarianism condones paternalistic interference with an individual's autonomy, the state may only legitimately limit personal liberty when required to protect society. John Stuart Mill stated that interference in the liberty of an individual should only occur for 'self-protection' in order to prevent harm to others.<sup>6</sup> In *Jacobson v Massachusetts* the United States Supreme Court stated that principles of self-defence justified the state's intrusion into individual rights in order to protect the community during a smallpox epidemic. The court observed that the unrestrained exercise of individual liberty which allowed injury to be done to other people would result in disorder and anarchy.<sup>7</sup> The enforcement of criminal sanctions, civil detention and other coercive regulation can thus be justified when autonomous individuals suffering from infectious disease have the potential to cause harm to others. In *R v Parezee* the defendant was found guilty of three counts of recklessly endangering life after having unprotected sexual intercourse with three partners while conscious that he was infected with HIV/AIDS and aware that unprotected sexual intercourse would endanger the lives of the victims.<sup>8</sup> The Canadian courts have proceeded further, convicting a man of murder after two sexual partners who were unaware of his infectious state during their relationships died of AIDS-related causes.<sup>9</sup>

#### Modern approaches to public health law

Bentham's utilitarian theories supported the introduction of public health statutes which prioritised the protection of society over individual autonomy; however, many early public health interventions were associated with discrimination and oppression. During the Sydney plague outbreaks in 1900, health powers were used in a discriminatory manner to compulsorily inoculate and quarantine Chinese immigrants. Health officials targeted 'insalubrious' districts where immigrant communities lived, despite acknowledging that unhealthy and squalid conditions were not isolated to the victimised minorities.<sup>10</sup> Similarly, during the 1920s, irrespective of developing treatment regimes and changing ideas about contagion, people affected by leprosy in Australia were 'seized and forcibly isolated' on distant islands by the authorities, doomed to end their days in exile.<sup>11</sup>

In contrast, modern public health laws place a greater emphasis on the individual's rights in order to cultivate community trust by proportionate and non-discriminatory decision-making.<sup>12</sup> The current South Australian public health legislation vests officials with the power to examine and detain people who are infected with certain prescribed diseases. Additionally, authorities may direct a person suffering from a notifiable disease to reside at a specified location, place themselves under the supervision of a medical practitioner or refrain from performing specified work.<sup>13</sup> Similar powers to examine, treat, give directions and require detention to control infectious disease exist in the draft South Australian Public Health Bill 2009; however, the bill also features increased protections for people suffering from a disease, incorporating statements of principle and clear patient management schemes.<sup>14</sup>

### Proportionate exercise of powers

A proportionate, graded approach to public health interventions is arguably the most acceptable balance between preserving individual rights and protecting the community. Not only have criminal sanctions, compulsory treatment and indefinite detention become unacceptably disproportionate methods of controlling infectious diseases, but the economic and social ramifications of mass quarantine also require consideration of alternative measures.<sup>15</sup> Furthermore, deprivation of personal liberty to a greater extent than is required to achieve genuine public health goals could be viewed as excessive, arbitrary or even illegitimate government action. Therefore, the obligation to impose the 'least restrictive alternative' which achieves the desired health outcome is either codified in statute or informally practised by Australian health officials. Notably, the draft South Australian bill contains specific principles requiring that public health restrictions imposed on individuals are proportionate to the risks presented to the community, taking into account the nature of the disease and the person's behaviour.<sup>16</sup>

In other Australian jurisdictions this tension is resolved by statutes requiring the exercise of coercive powers in a qualified and reasoned manner, as a last resort to less restrictive alternatives. The *Public Health Act 1991* (NSW) specifies that authorised medical practitioners must only consider restricting liberty if it is the most effective way to protect the public from an individual who poses a threat.<sup>17</sup> In the Australian Capital Territory, Queensland and Victoria, the management and control of infectious diseases is governed by principles requiring

that personal liberty is not unnecessarily restricted, patient privacy is respected, information about the social and medical consequences of a disease is given to affected individuals, and appropriate treatment is granted.<sup>18</sup> Public health officials in Victoria must 'reasonably believe' the individual poses a serious risk to public health, and consider alternative interventions that are less restrictive on the rights of individuals before imposing detention orders. Under the new *Public Health and Wellbeing Act 2008* (Vic), actions taken by officials, including quarantine orders made during an emergency, must be proportionate to the health risk.<sup>19</sup> These statutes codify the concept that interventions that intrude on personal rights and freedoms should be a final resort in achieving a legitimate public health outcome.

### Equitable and non-discriminatory exercise of powers

In addition to requiring a proportionate exercise of powers, modern public health legislation is increasingly addressing issues of discrimination and promoting equitable decision-making. Statements of principle which prohibit unlawful discrimination against individuals now exist in the Victorian, Queensland and Australian Capital Territory public health Acts.<sup>20</sup> Notably, the *Public Health Bill 2008* (WA) provides that a person should be protected from 'unlawful discrimination' provided their rights do not infringe on the wellbeing of others, placing a reciprocal duty on the state to ensure that individuals are safe from harm.<sup>21</sup> The equity principle in the draft *South Australian Public Health Bill 2009* stipulates that public health decisions should not unduly or unfairly disadvantage individuals or communities, specifically requiring that strategies must be intended to alleviate health disparities for disadvantaged groups.<sup>22</sup> Furthermore, the introduction of anti-discrimination legislation has arguably changed the context in which all authorities read coercive public health powers, increasing protection against interventions that lack reasonable medical grounds and target marginalised groups.<sup>23</sup>

### Conclusion

Modern public health legislation that entrenches resort to a least restrictive alternative and guards against discrimination is a relatively recent institution, protecting individual rights in addition to the community. These protections aim to encourage public trust in the health system, which is vital to ensuring

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that citizens obtain treatment for an infectious disease. Public health legislation has either been reformed or is being reviewed throughout Australia in order to consolidate these principles and clarify powers for public health authorities. However, while voluntary compliance generally constitutes the majority of public health interventions, community safety requires the option of coercive powers in the event of non-compliance. Although such powers may significantly intrude upon personal rights, their exercise is condoned by utilitarianism when it is reasonable and necessary to protect the community.

### References

1. The smallpox epidemic: protecting the state, action by the government. *The Advertiser* (Adelaide) Monday 21 July 1913, p. 15.
2. Parliamentary Debates, South Australian Legislative Council, 1 April 1987, 3695 (Robert Lucas) regarding the Public and Environmental Health Bill 1987.
3. *Kruger v The Commonwealth* (1997) 190 CLR 1 at 115–116; *Chu Kheng Lim v Minister for Immigration* (1992) 176 CLR 1.
4. Civil Liability Act (SA) s. 49; *Froom v Butcher* [1975] 3 All ER 520; Gostin L. General justifications for public health regulation. *Public Health* 2007; 121:829–830.
5. Gostin L, Sapsin J, Teret S. The model state emergency health powers Act: planning for and response to bioterrorism and naturally occurring infectious diseases. *JAMA* 2002; 288(5):622–626.
6. Mill, JS. On liberty. John W. Parker & Son, London, 1859, p. 22–23.
7. *Jacobson v Massachusetts* 197 US 11 (1905).
8. *R v Parenzee* [2008] SASC 245, *R v Parenzee* [2007] SASC 143.
9. *R v Aziga* [2008] CanLII 60336 (ON S.C.); Brown B. Guilty verdict in Hamilton HIV murder case. *The Star* (Hamilton) 4 April 2009.
10. Bubonic plague: seventeen cases In Sydney. *The Advertiser* (Adelaide), Friday 14 February 1902, p. 5; Potential plague spots: filth in the city. *The Argus* (Melbourne) Wednesday 13 March 1901, p. 8; Curson P & McCracken K. *Plague in Sydney*. New South Wales University Press, Kensington, 1989. pp. 169–174.
11. Cook C. The epidemiology of leprosy in Australia. Commonwealth of Australia, Department of Health, Service Publication No. 38, 1927.
12. Department of Health and Ageing, Australian Health Management Plan for Pandemic Influenza. Commonwealth of Australia, Canberra, 2008. p. 27.
13. Parliamentary Debates, South Australian Legislative Council, 1 April 1987, 3312 (John Cornwall, Minister for Health); Public and Environmental Health Act 1987 (SA) s. 32–33.
14. Draft Public Health Bill 2009 (SA).
15. Gostin L. When terrorism threatens health: how far are limitations on personal and economic liberties justified? *Fla L Rev* 2003; 55(5):1105–1128; Absenteeism during an influenza pandemic in Australia could reach fifty percent, representing a significant cost to the economy. Department of Health and Ageing, Australian Health Management Plan for Pandemic Influenza. Commonwealth of Australia, Canberra, 2008. pp. 16 and 44.
16. Draft Public Health Bill 2009 (SA) s. 14(5)(d).
17. Public Health Act 1991 (NSW) s. 3A (b); Public Health Act 1991 (NSW) s. 23.
18. Health Act 1958 (Vic) s. 119 and Public Health and Wellbeing Act 2008 (Vic) s. 111; Public Health Act 2005 (Qld) s. 66; Public Health Act 1997 (ACT) s. 4; Public Health Bill 2008 (WA) s. 67.
19. Public Health and Wellbeing Act 2008 (Vic) s. 9 and s. 200.
20. Health Act 1958 (Vic) s. 119; Public Health Act 2005 (Qld) s. 66; Public Health Act 1997 (ACT) s. 4.
21. Public Health Bill 2008 (WA) s. 67 (6)(a).
22. Draft Public Health Bill 2009 (SA) s. 14(5)(d) and s. 13.
23. Age Discrimination Act 2004 (Cwlth), Racial Discrimination Act 1975 (Cwlth), Sex Discrimination Act 1984 (Cwlth), Disability Discrimination Act 1992 (Cwlth) in addition to state Acts.

### Public health enforcement— promoting good regulatory practice through the development and application of local enforcement policies

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#### Introduction

The effective administration of public health legislation is a critical responsibility of those agencies charged with the statutory responsibility to promote and uphold standards of public health. Public health practice involves the use of a number of compliance tools, ranging from education and surveillance through to adjudication and prosecution. The development of supportive and flexible enforcement policies promotes fair, consistent and transparent administration of public health legislation, and can improve regulatory outcomes without imposing unnecessary burdens on the regulated community.

#### Why are enforcement policies so important?

The role of the regulator is becoming increasingly complex and demanding. As one leading academic in the field explains:

*'Regulators, under unprecedented pressure, face a range of demands, often contradictory in nature: be less intrusive—but be more effective; be kinder and gentler—but don't let the bastards get away with anything; focus your efforts—but be consistent; process things quicker—and be more careful next time; deal with important issues—but do not stray outside your statutory authority; be more responsive to the regulated community—but do not get captured by industry.'*<sup>1</sup>

Enforcement policies are a visible expression of the intent, values and priorities of the enforcement agency, and can serve to reconcile the many and often competing demands and expectations facing officers who are responsible for administering public health legislation.

Enforcement action may be necessary in a variety of situations, ranging from the emergence of cases or outbreaks of disease to the receipt of complaints by

authorities regarding the conduct of individuals and /or businesses whose actions (or lack of action) may compromise the health of individuals or the public. On occasions this work is done against a backdrop of community anxiety, even suspicion, which is sometimes fuelled by media reporting that overdramatises or distorts the issues.<sup>2</sup> In the face of extreme pressure, public scrutiny and media attention, an enforcement policy provides a single point of reference that can facilitate the effective and efficient use of enforcement powers.

#### Freedom from regulatory capture

Enforcement policies should promote independent and impartial enforcement of public health legislation so as to mitigate the risk of actual or perceived regulatory capture. 'Regulatory capture' is the theory that a regulator and the entities in the industry it regulates build working relationships that have the potential to lead to the regulator becoming unwilling to perform its compliance tasks diligently and impartially in respect of the entities, so as to avoid jeopardising those relationships.<sup>1</sup>

Regulatory capture is an insidious risk in the regulatory process. It can continue undetected for long periods as neither the regulated nor the regulator is likely to disclose it. It does not have the more obvious and acute characteristics of a major theft or assault, which would immediately draw attention and a remedial response. It is a risk best addressed by visionary anticipatory preventative actions, which place much of the responsibility for its risk management on effective and accountable management by managers within the regulatory systems. Regulatory capture is a risk that regulatory agencies should be concerned about—its existence may be hard to prove at times, be easily rationalised away, and will rarely lead to significant punitive action unless it progresses to misconduct involving the receipt of undisclosed gifts, benefits or bribes. However, it has the capacity to undermine the community's trust in public sector administration and in the fair application of regulatory processes applied in the public interest.<sup>3</sup>

#### Education, surveillance and enforcement—determining the right enforcement approach

Approaches to regulatory enforcement can be divided between deterrence (or punishment) on one hand and persuasion (or compliance) on the other. Increasingly, regulators are recognising that the best enforcement strategy is to develop a responsive regulation model

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that uses a mix of deterrence and persuasion. This gives the regulator flexibility to deal with a range of different subjects and situations.<sup>4</sup>

Enforcement options can range from informal action (provision of verbal or written advice/warnings) to issue of statutory notices (requiring remedial action to be taken or to cease and desist from an activity) and to prosecution.

An enforcement policy should set out the criteria to be considered when evaluating the various available enforcement options. Examples of key criteria that may be included in an enforcement policy include:<sup>5</sup>

- > the degree of risk from the situation
- > the seriousness of the legal contravention
- > the different technical means of remedying the situation
- > the particular circumstances of the case and the likelihood of its continuation or recurrence
- > the general attitude of the offender to his or her responsibilities
- > the past history of the person(s), company or premises involved
- > the willingness of owners of new businesses to carry out required work
- > the impact of the enforcement choice in encouraging others to comply with the law
- > the likely effectiveness of the various enforcement options
- > any legal imperatives
- > any legal guidance.

Informal action is generally appropriate where the degree of risk arising from the situation is low and there is a reasonable history of compliance. Escalating to more rigorous forms of enforcement action, such as service of statutory notices, requires careful consideration of the evidence at hand and adherence to any applicable rules governing their use. Prosecution is the most severe form of enforcement action and should only be pursued where it is in the public interest to do so and where there is sufficient evidence (consistent with the standard of proof) to demonstrate that the defendant committed the offence with which they have been charged.

While an enforcement policy might set out circumstances where specific enforcement options are appropriate, it should be noted that there will

be situations where the most apposite outcome will involve departing from the policy. Decisions to depart from accepted enforcement policies should be evidence based, properly reasoned and fully documented.

### Investigations

In the field of public health, investigations may be initiated in response to a number of factors, including:

- > epidemiological data relating to communicable or non-communicable disease
- > receipt of a complaint regarding an incident
- > identification of an issue during an inspection.

An investigation is primarily a search for the facts and ultimately a revelation of the truth. In most instances it is in accordance with specifications of a law, regulation or procedure. Regardless of its type or ultimate purpose, an investigation (a reaction) involves the gathering and evaluation of information.<sup>6</sup> The decision to investigate may be influenced by the gravity and nature of the offence, the likely discovery of evidence that will meet satisfactory standards of proof, the availability of human resources competent to carry out the investigation, and having sufficient time to investigate, bearing in mind the times within which a law may require proceedings to be commenced.<sup>4</sup>

An effective investigation involves the combination and application of appropriate knowledge, skills, attitudes, experience and common sense, together with observation of the rules of the law, fair play and established procedures.<sup>6</sup> If the strict requirements of the relevant legislation have not been complied with, the evidence is open to challenge and the case may collapse.<sup>7</sup> Enforcement officers responsible for conducting investigations can be supported, through the provision of appropriate training, in managing investigations and the development of codified investigative procedures. Training and policy should build the capacity of enforcement officers to effectively and efficiently manage the various components of an investigation, including:

- > interview techniques
- > evidence gathering and management of potential exhibits
- > making and management of contemporaneous notes, statements and documentation.

A competent investigation is an essential precursor to successful enforcement action. When an investigation

results in a decision to pursue enforcement action (particularly prosecution), the methods and processes followed by the investigator can be subject to intense technical, legal and judicial scrutiny. The consequences of getting an investigation wrong can be costly, embarrassing and damaging to the credibility of the enforcement agency.

### Summary

In responding to public health issues and breaches of public health legislation, the enforcement approach adopted by the public health authority will not only be influenced by the context and conditions in which the circumstances have arisen but by the values and culture of those individuals and agencies involved. Enforcement policies assist agencies, their officers and those they deal with in understanding what is expected of them, and promotes proportionate, consistent and transparent administration of public health legislation.

Enforcement policies should be consistent with the vision and mandate of the agency and accord with its broader governance policies. They should be developed through consultation with relevant stakeholders, applied in a manner that is compatible with the context in which a public health issue has arisen, and consistent with the needs of the local community.

### References

1. Queensland Ombudsman. *Tips and traps for regulators*. 2007. [www.ombudsman.qld.gov.au/.../TipsandTrapsforRegulators.aspx](http://www.ombudsman.qld.gov.au/.../TipsandTrapsforRegulators.aspx)
2. Robinson P. *Legionella: investigation of an outbreak: case study 2*. In 'Public health law and regulation', Reynolds C (ed.) The Federation Press, 2004.
3. Adams G, Hayes S, Weierter S, Boyd J. *Regulatory capture: managing the risk*. A paper supporting a presentation within the stream 'Government regulators – the environment and the corruption risks it presents'. Australian Public Sector Anti-Corruption Conference, 24 October 2007, Sydney. [http://www.apsacc.com.au/papers07/day1\\_24oct07/StreamA2/RegulatoryCaptureManagingTheRisks\\_JohnBoyd.pdf](http://www.apsacc.com.au/papers07/day1_24oct07/StreamA2/RegulatoryCaptureManagingTheRisks_JohnBoyd.pdf)
4. World Health Organization. *Enforcement of public health legislation*. WHO, 2006.
5. Environmental Health and Trading Standards Department. *Enforcement Policy (version 6)*. The Royal Borough of Kensington & Chelsea, UK. <http://www.rbkc.gov.uk/PDF/Environmental%20health%20enforcement%20policy.pdf>
6. *Investigation methods (law enforcement and compliance)*. Course handbook. Education Design Systems Pty Limited, 2000.
7. Reynolds C. *Public health law and regulation*. The Federation Press, 2004.

## Public health law for the 21st century: the South Australian experience

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### Introduction

This paper will overview the context in which South Australia is reviewing its principal public health legislation. It will briefly describe the aims of proposed new legislation and its key features, and provide a discussion of how the new legislation may be implemented once passed by Parliament.

### The context

South Australia has embarked on the reform of its principal piece of public health legislation—the *Public and Environmental Health Act 1987* (the Act). Although a relatively recent piece of legislation by comparison with some other jurisdictions, it nevertheless reflects the public health concerns of its time. Times have changed since 1987.

When looking from the vantage point of 2009, the Act has been found to be limited in its scope and capacity to respond to a range of both traditional and emerging public health issues. In the 22 years since the Act was passed, the understanding of what are significant public health issues has grown, along with the evidence necessary to underpin this understanding.

In the intervening years there has been recognition of the public health significance of such factors as:

- > chronic/non-communicable diseases and their causes
- > the social and economic determinants of health
- > the public health impacts of climate change and other emerging localised as well as global environmental health concerns
- > the emergence of new or mutated strains of infectious diseases, including greater concerns about pandemics
- > the public health implications of large-scale movements of people on a daily basis around the planet.

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In addition, there has been an attendant growth in the level of sophistication of public health interventions. While the traditional tools of public health, based on sanitation, hygiene, vaccination and 'command and control' measures, are still critical and vital for the maintenance and protection of public health, they are no longer sufficient to guarantee the ongoing health of the population.

Public health interventions now include a greater emphasis on intersectoral action for health, more sophisticated public policy and legal strategies. The latter include:

- > more assertive regulatory and taxation measures
- > greater emphasis on community engagement and awareness. leading to more informed community and consumer participation
- > the development of rigorous and systematic risk assessment methods, including health impact assessments
- > the emergence of a Health in All Policies approach as a central driver of public policy action across government
- > the implementation of new International Health Regulations (2005) with their attendant commitment to respecting civil and human rights within the context of protecting public health.

None of these developments in our understanding of public health issues or in the growing range of effective interventions were adequately anticipated or reflected in the 1987 Act. Additionally, when consulting with public health practitioners engaged in administering provisions of the Act, several operational problems were identified. These included:

- > a lack of clear objectives and principles to guide decisions by authorised officers
- > a lack of clear guidelines for the assessment of risks to health
- > the presence of pre-germ theory concepts of health and disease transmission still contained in the wording of the Act
- > a lack of clear emergency powers (recently dealt with through an amendment (2009) in response to the emergence of H5N1 pandemic influenza)
- > barriers to the transfer of vital public health information to ensure effective management of infectious disease
- > limitations in the management regime for infected persons whose behaviour posed a risk to others.

The review of the Act initially commenced at the beginning of this decade. It gained further impetus and a refocused effort immediately after the 2006 state election as a result of an explicit election platform commitment of the State Government. The drive behind reviewing and reforming the Act is part of a mainstream Australian and worldwide reform effort to upgrade public health legislation and ensure that public health law is equipped to deal with both enduring and emerging 21st century health challenges. Over the past decade many Australian states and territories have reviewed and reformed their public health legislation, including the Australian Capital Territory, Tasmania, Queensland and Victoria. Western Australia's draft Bill is the subject of a separate paper in this Bulletin. New South Wales commenced reviewing their legislation in the 1990s.

Additionally, the international public health law landscape has also been changing. In the post-SARS environment several Canadian provinces renewed their public health Acts; in particular, Quebec has been a leader in legislative reform. The post-9/11 impacts in the USA have also focussed more attention on the need for robust public health legislation. In the European context there has been further reform, both in continental Europe (particularly in the Nordic countries) and the UK. The former Government of New Zealand proposed new public health legislation, which the new Government is now considering. The results of these national and international developments have been monitored and appraised for their relevance in the South Australian context.

### The aim of the draft South Australian Public Health Bill 2009

With clear direction set by the review of current practice, an understanding of current and emerging public health issues, and a survey of national and international trends in public health law, South Australia is in a strong position to establish a robust legislative platform capable of responding to the health challenges of the 21st century. The aim of the draft South Australian Public Health Bill 2009 is neither to simply look back on historical public health issues nor to reflect current practice. The aim is to provide the framework and the means to deal with both known and unknown public health threats and the tools for effective protection and promotion of health, no matter what unforeseen circumstances emerge in this century.

## Specific provisions

Some of the key provisions of the proposed legislation are outlined in Table 1.

Further information and a copy of the draft Bill can be found at <http://www.health.sa.gov.au>.

Table 1: Key provisions of the proposed legislation

Provisions	Clauses
Objectives	Cl 4 provides for 10 objectives that emphasise the aim of promotion and protection of health as well as the prevention, early detection, management and control of public health threats.
Principles	Cl 5–14 provide for a range of principles used to guide the actions and decisions of those responsible for administration of the legislation; and include specific reference to International Health Regulations provisions to protect and respect civil rights within the context of the protection of public health.
Role of the Minister	Cl 17 describes the role of the Minister, who has chief responsibility for administering the Act and is principal adviser to the government; and establishes a framework for the systematic establishment of a Health in All Policies approach across government.
Role of the Chief Public Health Officer	Cl 20–21 establish the statutory position of Chief Public Health Officer, with a wide range of roles and powers to coordinate the public health effort and provide high-level advice to the public health sector, Department of Health, Minister, Parliament and public of South Australia.
Reporting	Cl 23 requires the Chief Public Health Officer to prepare a report every 2 years on the state of public health in South Australia, to be presented to the Minister and Parliament.
South Australian Public Health Council	Cl 26–36 establish the South Australian Public Health Council, with a broad-based membership and wide powers to develop a strategic approach to advising and monitoring the public health effort in the state.
Role of local government	Cl 37 defines a series of strategic roles for local councils in their capacity as local health authorities.
Public health planning	Cl 49–51 establish a system of public health planning at the state and local government levels to provide the means for an integrated and coordinated effort on public health across the state; provide for the recognition of 'public health partner authorities', which can include state and other government health agencies, whose remit has implications for public health; and provide for public health planning by local government to be aligned with their pre-existing strategic planning responsibilities under the <i>Local Government Act 1999</i> rather than being a separate planning exercise.
The general duty	Cl 52 establishes a general duty on everyone to take reasonable steps to prevent or minimise any harm to public health, as in similar legislation dealing with environmental protection and occupational health and safety.
Assessing risks to health	Cl 53–56 provide for a scheme for the assessment of material and serious risks to public health; and provide for offences and penalties where prosecutions are made.
Non-communicable conditions	Cl 57–58 provide for the identification and monitoring of non-communicable conditions; and for the Minister to issue codes of practice relating to, e.g., the manufacture of goods or substances, the supply of services, building, infrastructure, as they impinge on public health.
Notifiable conditions	Cl 59–80 continue and strengthen the scheme for the identification, prevention and management of notifiable and controlled notifiable diseases; and include provisions for: the identification of micro-organisms prior to an outbreak, the rapid declaration of notifiable and controlled notifiable conditions, more robust management practices for people with infectious conditions, clear provisions for the transfer of information, and a recognition of interstate public health orders for those people who travel across borders.
Emergencies	Cl 81–90 insert the recent amendments to the PEH Act 1987 dealing with significant public health emergencies.

### Implementation

At the time of writing, the draft South Australian Public Health Bill was in the process of consultation. It is expected that, after further consideration by Government, a final version will be presented to Parliament. As with any new piece of legislation, considerable thought must be given to how it will be implemented. While the legislation builds on some key aspects of current and emerging practice, those charged with its administration will require some time to analyse key aspects of the new Act and prepare and adjust their practices and procedures to meet its provisions.

It is anticipated that implementation of the new Act, once passed, will be phased in as the capacity for its adoption is developed. This process will need to be based on extensive discussions and joint planning between the Department of Health and key stakeholder groups, which include local government, the health care provider community (particularly those engaged in the identification and management of infectious disease), other government agencies (e.g. Environment Protection Authority) and the non-government public health sector.

### Conclusion

History demonstrates that every time public health legislation is considered, public debates emerge concerning the imposition on individual freedoms and privacy. This is inevitable and appropriate as every government proposal must be weighed against the measure of cost in terms of individual liberty. However, public health has long been seen as a public good, with the realisation that the only way to ensure the health of any one individual is to provide for the health of everyone through sound public health infrastructure and strategies. This is not to make health compulsory—individuals and society will continue to take risks and make trade-offs between health and other valid personal and social goals every day. Rather, the legislative proposals before the South Australian public seek to consolidate accepted public health practices, draw on the best evidence and experience to protect and promote public health, and, most specifically, seek to provide measures that enable individuals and communities to plan and take action to improve their own health.

## Drafting new public health legislation: Western Australia

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### Introduction

At the time of writing Western Australia (WA) operates with a public health act that is nearly 100 years old. The *Health Act 1911* (the Act) continues a framework of public health power that had its origins in the 19th century miasmatic traditions before the germ theory of disease causation was properly understood. By modern standards it has many shortcomings, primarily because it is reactive. It is inflexible—its capacity to react to existing problems is constrained by a narrow ‘nuisance’-based approach. It also offers no response to emerging public health issues such as climate change, a mobile world population, new industries, chronic disease or bio-terrorism. Nor does it provide for accountability in relation to the setting of public health standards or seek to provide a balance between its coercive powers and the rights of individuals who might be subject to them. Most significantly, it has been ineffective in tackling Aboriginal environmental health issues. With these manifest shortcomings, and the fact that few Acts remain in place for a century, the case for reform has been compelling and widely held. This has provided the opportunity and the willingness to replace the Act with leading edge legislation and a new approach that might create a model for other jurisdictions to follow.

Yet there are also some strengths in the existing legislation and its administration that must be acknowledged. Firstly, it is the formal vehicle that has allowed Environmental Health Officers (EHOs) and others to protect the public’s health. This has largely been due to the excellent efforts of the workforce, mainly EHOs employed in local government, when working with the longstanding powers and remedies of the Act—perhaps illustrating that sufficiently dedicated and imaginative people can do good things even with inadequate or limited legislation. The Act also set in place the split in public health responsibilities

between the 'centre' (the state Department of Health) and the local government regions. This is an abiding relationship that can be traced back to the first public health legislation of the mid 19th century. Indeed public health has always been a core function of local government, and the relationship between the centre and local government set out in the Act a century ago remains as important and relevant today as it was then. The Act defined the core purpose and role of local government as protecting the health of communities from threats predominantly from the environment, such as insanitary conditions, and created the function of local municipalities and health districts for the purposes of the Act.<sup>1</sup>

The Act grew to over 400 sections and, suffering the same fate as many other old health acts, became a repository for any new initiative that governments over the years needed to give a legislative home. It contained, until recently, the WA food laws (years after other Australian states had introduced specialised stand-alone food Acts); and continues to provide the provisions for offensive trades, animal produce, drugs, medicines, disinfectants, therapeutic substances and pesticides, child health and mortality committees (maternal, infant and anaesthetic). Oddly, it also has some provisions relating to hospitals and community health centres.<sup>2</sup>

But reform in other areas of government activity led to traditional public health functions being recharacterised as issues of workplace health and safety through the Occupational Safety and Health Act 1984, and issues of pollution control through the Environmental Protection Act 1986 (the EP Act). These newer legislative regimes offered higher penalties and more versatile responses; for example, under the EP Act penalties exist for a range of offences, including causing pollution or unreasonable emissions<sup>3</sup> and the discharge of waste.<sup>4</sup> An unreasonable emission is defined as:

*'... an emission or transmission of noise, odour or electromagnetic radiation which unreasonably interferes with the health, welfare, convenience, comfort or amenity of any person'.*

In this respect it captures many of the complaints that might also amount to a nuisance under the Act. More substantial offences, also of concern to public health practitioners, are also covered by the EP Act. These include causing harm (material or serious) to the environment,<sup>5</sup> and are broad enough to cover many serious threats to public health (since humans are part of the environment) as well as threats to ecosystems

or species other than humans.<sup>6</sup> The penalties are also very high by public health standards, ranging up to 5 years' imprisonment for the most serious offence.<sup>7</sup> It is perhaps understandable that environmental law overshadowed the traditional public health response, and that areas that have always sat within environmental law (such as air and water quality) are now seen as environment protection issues rather than public health issues.

Perhaps the greatest criticism and potentially the greatest shortfall in the Act is the fact that the Crown is not bound by it. In other words, the legislative public health standards and requirements that apply elsewhere do not apply to the State Government nor to premises and land owned by Crown authorities.<sup>8</sup> This limits its operation in many areas, some of which have great public health need, for example Aboriginal communities (in particular, the extensive land areas and Aboriginal populations in the north of WA) and rural schools or facilities. These exemptions reflect an earlier understanding of Crown immunity that is no longer regarded as appropriate in modern legislation.

### Reforming the *Health Act 1911*

Plans to reform public health law in WA first commenced in the 1990s but, as often occurs, the initiative was lost as other health priorities emerged. The process recommenced in 2004, and the Discussion Paper *New public health Act for Western Australia* was issued in 2005.<sup>9</sup> This canvassed a new approach to legislation based on 'risk' rather than the traditional and very limited sanitary approach expressed in the power to order the abatement of 'nuisances' as defined in the Act. The discussion paper envisaged significant changes to the existing legislative framework and advocated new thinking to address the contemporary public health needs of the 21st century. It also borrowed from a wide variety of sources including the 2000 National Public Health Partnership's paper *Risk management principles in public health legislation* and the 1997 report *Public health law in Australia: its current and future directions*. This was consistent with general trends in local government, with risk management practices being reviewed as part of the consultation process.

The discussion paper set out the proposed elements for a possible model public health Act that could be adopted as a national model. It proposed that the centrepiece of environmental health protection should be the concept of a general duty, where all people have a duty to not cause a public health risk.

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This was strengthened by the concept of a risk in modern public health legislation, such as a material and serious offences commensurate with the level of risk. The discussion paper also advocated the insertion of objects and principles (a feature of much modern legislation), and the creation of a rights and duties approach to the coercive powers to restrict people's movement or activities in order to control the spread of communicable disease.

### The proposed Public Health Bill

The Public Health Bill 2008 was drafted along the lines advocated in the discussion paper. The central framework is a general risk management concept, which is reflected in the objects and principles and includes a specific risk management tool for authorised officers to apply as possible parts of improvement notices. The Bill establishes a series of principles, hitherto rare in public health legislation, including sustainability, the precautionary principle, proportionality (mainly in respect of the use of the coercive powers), intergenerational equity, and acknowledgement and respect of local government.<sup>10</sup>

There are precedents for this approach, mainly in environmental protection legislation, where concepts of risk, a general duty to the environment and tiered offences for people that cause environmental harm have been shown to work.<sup>11</sup>

While the public health threats of the 21st century will continue to be the traditional environmental nuisances, there are issues (some new, others old) associated with human behaviours that need to be considered. Some of these contribute to the burdens of communicable disease and others to non-communicable disease. There are also new and, at this stage, unimagined public health problems.

The proposed key objects of the Bill are quite radical when compared to the Act, and reflect these new issues and the broader approach to protecting public health. The objects are:

- > to promote health and wellbeing, and prevent diseases, injury and disability
- > to protect individuals and their communities from risks to health and to provide, insofar as is reasonably practicable, a healthy environment for all Western Australians
- > to encourage individuals and their communities to plan for, create and maintain a healthy environment

- > to inform the community about risks to health
- > to establish responsibility for the administration of the powers in the Act between the state and local governments
- > to reduce the health inequalities of disadvantaged communities.

The object 'to prevent diseases, injury and disability' shows a new direction compared to the Act, in which it is taken for granted that diseases do, and will continue to, exist. The Act is reactionary, offering only basic remedial action which is not always commensurate with the risk posed to public health.

A principal strength of the new Bill is the risk-based approach, which provides a framework for the identification of risk rather than a prescriptive list of risks reflective of the current time of drafting the legislation. Rather than trying to identify and foresee all possible risks to public health, the focus is on developing a framework that would enable not only current or known risks, but also future unknown risks, to be managed based on core objects, principles and a strong planning and reporting approach. This has been described as 'future proofing' the legislation.

For example, recently there has been a rapid increase in the number, type and risk profiles of 'public purposes activities'. An example is outdoor music festivals, which cater for many thousands of people over a number of days using structures, electrical installations, sanitation, and food and water supplies that are all temporary and pose real risks to public health, ranging from low to severe likelihood and consequence. There are also emerging risks in 'therapeutic' or personal services such as use of solarium (sun beds), colonic irrigation and skin branding. The range of public health concerns associated with these activities is better controlled by a generic risk-based approach than the traditional limited 'nuisance' provisions.

The Bill also contains requirements for state and local public health plans aimed at achieving prevention as well as risk management and evidence-based approaches to actual risks. The planning framework will provide the necessary and specific programs, projects and services to meet current and changing community needs. It is designed to be an iterative process informing the planning and delivery of services based on risk profile and community needs. It will also integrate with existing strategic and operational planning processes within state and local government agencies.

Public health assessments are also a feature of the Bill.<sup>12</sup> The Chief Executive, as the statutory person administering the legislation,

*'...may, by written notice given to the proponent of an assessable proposal, require a public health assessment to be carried out in respect of the proposal by and at the expense of the proponent'.<sup>13</sup>*

This inclusion was prompted by a number of significant risks to health over recent years arising from hazardous operations—including a toxic chemical dump fire within the metropolitan area of Perth, health impacts arising from a chemical and waste recycling plant, and lead contamination in a major regional city.

A separate part of the Bill deals with notifiable diseases and serious public health incident powers. It provides a process for the declaration of certain diseases as notifiable diseases and for their management. The serious public health incident powers are to be used for the purposes of preventing, controlling or abating a serious public health risk. They can only be issued by the CEO of the state Department of Health and there are strict controls and limits on the use of these powers. The Public Health Emergencies part of the Bill may also trigger the need for such incident powers. This part requires the planning against, and response to, possible public health emergencies that are unique enough to require provisions in the Public Health Bill to cater for those not in the Emergency Management Act 2005 (WA). This includes special measures such as compulsory testing and isolation and the need to balance individual rights with quite extensive administrative powers. A generic emergency management Act rarely caters for such balances.

### Consultation

Consultation was integral to the process of developing the draft Bill. The process began in 2005 with the discussion paper, which was shaped in consultation with local government, particularly in those areas already applying 'best practice' and modern approaches such as risk management. This involved numerous public meetings across the state, written submissions, and engagement with key stakeholders such as state government agencies, local government and the Western Australian Local Government Association (WALGA), which partnered with the Department of Health in the consultation process. A similar consultation process was taken with the draft Bill over a 3 month period in the first half of 2008.

Consultation with local government resulted in streamlining of the administrative requirements in the legislation, such as integration of health planning into existing corporate planning processes already undertaken or required under the Local Government Act 1995. Similarly, the existing statutory reporting arrangements would be used to monitor and verify requirements. Consultation was undertaken with government agencies such as the Department of Local Government and Regional Development, resulting in support and cooperation in relation to this process. There was some concern about the broad-based risk-to-health approach insofar as some respondents felt that the 'devil was in the detail', and the full dimensions of the duty (and local government's obligations to enforce it) were not clear. However, the overwhelming message from local government, including WALGA, was in support of removing amenity/nuisance issues from the Bill and giving each local government agency autonomy over managing these low-risk issues.

### Conclusion

The draft Public Health Bill has bipartisan support at the political level. The Labor Government approved the drafting of the Bill following strong support during public consultation on the discussion paper. The draft Bill was not affected by the change of government in 2008 and bipartisan support continues. It is anticipated that Cabinet will approve tabling of the Bill in Parliament in the spring session 2009.

### References

1. [Health Act 1911 Part II](#)
2. [Health Act 1911 Part XII and Part XIIA](#)
3. [Environmental Protection Act 1986 s. 49](#)
4. [Environmental Protection Act 1986 s. 50](#)
5. [Environmental Protection Act 1986 ss. 50A and 50B](#)
6. [Environmental Protection Act 1986 s. 3\(1\) environment, ... means living things, their physical, biological and social surroundings, and interactions between all of these.](#)
7. [See Environmental Protection Act 1986 Schedule 1 Penalties.](#)
8. [See \*Atyeo v Aboriginal Lands Trust\* \(1996\) 93 LGERA 57.](#)
9. [Department of Health Western Australia, June 2005.](#)
10. [See draft Public Health Bill 2008 s. 3 Table](#)
11. [WA Environmental Protection Act 1986 Part V is one example. See ss. 50A and 50B.](#)
12. [See draft Public Health Bill 2008 Part 7.](#)
13. [See draft Public Health Bill 2008 s. 45.](#)

### Protecting the health of the public: the role of the local government Environmental Health Officer

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#### Introduction

The Environmental Health Officer (EHO) working in local government is involved in the prevention of communicable and infectious diseases and the protection of public and environmental health in their local area. The World Health Organization (WHO) defines environmental health as:

*Environmental health comprises those aspects of human health and disease that are determined by factors in the environment...including both the direct pathological effects of chemicals, radiation and some biological agents, and the effects (often indirect) on health and wellbeing of the broad physical, psychological, social and aesthetic environment (including housing, urban development, land use and transport).<sup>1</sup>*

The traditional role of the EHO arose in the early 20th century and was colloquially known as a 'rat catcher'—a professional primarily concerned with the basic needs of sanitation and safe drinking water. The emergence of the modern role of the EHO was a direct result of infectious diseases such as cholera spreading through the community and the need to control and prevent their spread. In the 21st century the role still encompasses these original activities but has evolved, and now includes the '...physical, social and economic environment and adopts a preventative health promotion approach'.<sup>2</sup>

The role of the local government EHO is multidisciplinary. Professionals are often referred to as 'specialist non-specialists' with responsibilities across a number of areas, and are authorised to use legislative tools to ensure the protection of public health. Primarily, the role involves administering the regulatory functions of public health legislation, and fulfilling mandatory obligations as well as health promotion activities.

Risk assessment tools are used to prioritise the public health needs of the community, and services provided by EHOs are based on local priorities identified in the plans to ensure improved delivery and better outcomes for the community's health.

The day-to-day activities of the EHO depend on the changing needs of the community. While they still focus on the early 20th century roles of basic sanitation, shelter and safe water, these roles have broadened to encompass a wider range of issues in the protection of public health in Australia.

#### Legislation relevant to local government

A major facet of the EHO role is to be able to respond to any emergency or crisis of a public health nature. EHOs are highly skilled in urgent and immediate risk assessment to ensure that any emerging public health issue is addressed appropriately. Risk assessments are carried out in line with the responsibilities under each piece of legislation for which local government has a responsibility, using enforcement tools where necessary.

In 2008 the South Australian Department of Health developed environmental health indicators for local government, outlining the key pieces of legislation for which local government has some responsibility.

*...the key statutory environmental health obligations of local government are specified in three South Australian Acts of Parliament: the Public and Environmental Health Act 1987, the Food Act 2001 and the Local Government Act 1999, and associated Regulations. There are three other pieces of legislation under which some local government EHOs operate. However, they only apply to a small number of councils (Supported Residential Facilities Act 1992), they are used to rectify some insanitary conditions (Housing Improvement Act 1940), or the relevant provisions are administered by councils on a voluntary basis (Environment Protection Act 1993).<sup>3</sup>*

The daily activities of an EHO may include regulatory functions under these Acts as well as related public health promotion, requiring both field- and office-based inspections and investigations.

#### **Food Act 2001**

Under the *Food Act 2001* EHOs are required to routinely inspect businesses that handle food for sale to ensure that only safe and suitable food is sold in Australia. These types of businesses range from the local delicatessen, supermarket or restaurant to manufacturers, distributors and importers. Routine inspections are unannounced and can occur at any hour of the day, depending on the hours of operation of the business and whether it is necessary to assess

business activities at the busiest times, e.g. bakeries at 5 am. During food inspections EHOs use a standardised inspection proforma against which businesses are assessed for compliance with the Food Act and the Food Safety Standards. Any non-compliances which are identified are brought to the attention of the business. Remedial action may be required which can necessitate follow up assessment. EHOs are equipped with the tools to deal with particular circumstances that may require immediate attention if they pose a risk to health. Notices can be served on the business requiring action to be taken (in some cases immediately) or if serious or repeated non-compliances are identified, the Council can elect to prohibit business operation until the situation is remedied. The Council may also elect to expiate or prosecute a business for offences under the Act.

Under this Act, EHOs have extensive powers of entry and inspection which provide them with the authority to enter and inspect a business at any reasonable time and take notes, photographs, receipts or any other documentation or physical items as evidence. Obstructing or hindering an Authorised Officer in the course of their official is an offence which if committed, may result in prosecution.

### ***The Public and Environmental Health Act 1987***

There are a number of functions under this Act that are used by EHOs each day. Section 12 of the Act states:

*...Council is required to promote proper standards of public and environmental health in its area; and to take reasonable steps to prevent the occurrence and spread of notifiable diseases within its area; and to prevent any infestation or spread of vermin, rodents or other pests within its area.*

To protect the health of the public, EHOs use the provisions of the Act and subordinate regulations. The newly implemented *Public and Environmental Health (Legionella) Regulations 2008* require authorities to proactively and routinely monitor high risk manufactured water systems (cooling towers and warm water systems) to ensure that the risk of Legionella is adequately managed to prevent cases of community-acquired Legionella infection. Cases of Legionellosis within the community are actively investigated in an attempt to identify the source.

Swimming pools, spas, hairdressers, beauticians and tattooists are all routinely inspected under this Act and associated Regulations. EHOs also follow up on complaints from customers regarding insanitary

conditions, rat sightings and offensive activities such as odour, dust and noise. Investigations under this Act usually involve photography, note-taking, interviewing and evidence collection. To enforce the Act, EHOs use formal notices, warrants, expiations and prosecutions. When notices associated with insanitary conditions are not complied with, EHOs can use the powers under the Act to conduct the works in default.

### ***Local Government Act 1999***

Some local council areas use the powers under the *Local Government Act 1999* to develop by-laws to monitor and regulate the boarding house and lodging house industry. EHOs at Port Adelaide Enfield Council annually license lodging houses under By-law 6 and use the *Public and Environmental Health Act 1987* and *Housing Improvement Regulations 2007* to ensure proper standards of living and accommodation. The demand for lodging house accommodation in the community has increased in 2008–09, with the number of facilities being investigated by Port Adelaide Enfield Council increasing from 5 to 35 in that time.

### ***Supported Residential Facilities Act 1993***

Councils routinely inspect and license supported residential facilities within their area. These facilities are premises at which, for monetary or other consideration, residential accommodation is provided or offered together with personal care services. Facilities are licensed on an annual basis and all personal care services are assessed to ensure that the standard of living is appropriate for all residents. Councils can revoke a licence from such a facility if it is not operated and maintained in accordance with this Act.

## Legislative changes

Recently, there have been a number of legislative changes that directly impact the role of EHOs and their responsibilities in protecting public health. The changes include the introduction of food auditing under the *Food Act 2001*, Legionella Regulations 2008 under the *Public and Environmental Health Act 1987*, and the draft Public Health Bill 2009 to replace the latter Act.

The introduction of food auditing under the *Food Act 2001* came into effect in 2008 and required EHOs to undergo extensive training to become certified auditors. Vulnerable populations such as those in aged care facilities, childcare centres and hospitals were recognised as being at high risk, and the industries therefore required further regulation.

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## Public Health Bulletin

The introduction of the Legionella Regulations 2008 has provided EHOs with more prescriptive powers to regulate high risk manufactured water systems. The aim of the Regulations is prevent cases or outbreaks of Legionellosis through the effective management of cooling water systems and warm water systems. Under the Regulations, systems are required to be registered with the local council in which they are situated and systems are subject to annual inspection and testing to ensure that they are being appropriately managed.

The advancement of the profession and practice of public and environmental health is in part, a product of the advocacy for smarter public health policy by public health practitioners including EHOs. As public health legislation and policy evolves, it provides better and more effective tools that can be used to protect and enhance public health. However innovation and advancement in policy can present a number of challenges at the practitioner level. To work effectively in a multidisciplinary role (and generally against a backdrop of limited resources), EHOs require a broad skill set and a commitment to life-long learning so that their legal, scientific and technical skills are appropriately maintained for the benefit of the communities they serve.

### Environmental health—a new direction to protect public health

The EHO deals with a wide range of activities on a day-to day-basis; however, these activities and priorities have not dramatically changed from the 20th to the 21st century. Australia's National Environmental Health Strategy 2007–2012 defines environmental health as:

*Environmental health addresses all the physical, chemical, and biological factors external to a person, and all the related factors impacting behaviours. It encompasses the assessment and control of those environmental factors that can potentially affect health. It is targeted towards preventing disease and creating health-supportive environments.<sup>4</sup>*

As the peak professional body representing EHOs, Environmental Health Australia strongly supports this strategy as it recognizes that the public health challenges of today (such as lifestyle-related diseases including obesity, diabetes and cancer) are becoming increasingly prevalent and in some cases, have eclipsed the public health challenges of yesterday (such as sanitation). These new public health problems require

increasingly sophisticated interventions and possibly a rethink of the way public and environmental health is operationalised at the local government level. In this context EHOs may be called upon to move from a role that is often reactive, to one that is more proactive and focused more strongly on health promotion and education. This may result in EHOs taking on new and expanded roles which will necessitate a reassessment of existing activities and priorities.

#### References

1. World Health Organization (WHO). Environmental health policy: what is environmental health? WHO, 2004. [http://www.euro.who.int/eprise/main/WHO/Progs/HEP/20030612\\_1](http://www.euro.who.int/eprise/main/WHO/Progs/HEP/20030612_1).
2. Port Adelaide Enfield Council Environmental Health Management Plan.
3. Vickers A, Lease C. Developing local government environmental health indicators for South Australia: a discussion paper. South Australian Department of Health, 2008. <http://www.dh.sa.gov.au/pehs/publications/0812-EH-indicators-discussion-paper.pdf>.
4. EnHealth. National Environmental Health Strategy 2007–2012 Commonwealth of Australia, 2007. [http://www.health.gov.au/internet/main/publishing.nsf/Content/798726839F2B2FA6CA2572D40008D566/\\$File/enHealth%20NEHS%20final%20for%20web%20Nov%202007.pdf](http://www.health.gov.au/internet/main/publishing.nsf/Content/798726839F2B2FA6CA2572D40008D566/$File/enHealth%20NEHS%20final%20for%20web%20Nov%202007.pdf).

# Communicable Disease Control Branch Report

## Communicable Disease Control Branch Disease Surveillance and Investigation Report 1 April to 30 June 2009

The Disease Surveillance and Investigation Section (DSIS) of the Communicable Disease Control Branch (CDCB) conducts statewide surveillance for notifiable diseases enabling analysis of health data and initiation of specific public health actions to prevent further spread of disease. Specified data are provided regularly to the National Notifiable Diseases Surveillance System.

Weekly summaries of notifiable diseases in South Australia (SA), as defined in the *Public and Environmental Health Act 1987*, are published on the SA Health website. Included are counts of notified infections, information about current cluster and outbreak investigations as well as historical data.

Some investigation and control activities are conducted in conjunction with partner agencies that provide additional expertise and authorities under other Acts in South Australia. These agencies include OzFoodNet Australia, SA Infection Control Service, SA Pathology (Institute of Medical and Veterinary Science), Primary Industries and Resources SA (PIRSA), and Environmental Health Officers (EHOs) from local government, as well as other branches of SA Health including Food Policy and Programs, Applied Environmental Health, and Scientific Services.

### Summary

Between 1 April and 30 June 2009 the DSIS collected a total of 3628 reports of notifiable diseases, including a seasonally consistent number of 791 reports of gastrointestinal diseases.

#### > Investigation and control activities included:

- > 2 cases of measles
- > 1156 cases of influenza
- > 927 pertussis cases
- > 39 hepatitis A cases
- > 12 cases of Shiga-toxin producing *E. coli* infection
- > 10 cases of invasive meningococcal disease
- > 5 cases of mumps
- > 1 typhoid case; 2 paratyphoid cases

- > 1 outbreak of locally-acquired hepatitis A
- > 2 outbreaks of gastroenteritis due to norovirus.
- > In partnership with OzFoodNet foodborne disease investigations included:
  - > 1 outbreak of gastroenteritis - no agent identified
  - > 5 outbreaks of illness due to *Salmonella*.

### VECTORBORNE DISEASE

Ross River virus and Barmah Forest virus are both arboviruses, that is, spread by mosquitoes. These infections usually demonstrate cyclic patterns of disease, peaking in summer months. In early summer, a health alert is released from the CDCB to raise awareness of these infections. A prevention program, the "Fight the Bite" campaign, has operated in SA since December, 2004.

Common symptoms of arboviral disease include arthralgia, rash, flu-like symptoms and swollen glands; ranging from mild to disabling. Severe complications occur rarely. Blood tests confirm the diagnosis, usually by demonstration of specific arboviral antibodies in acute-phase sera.

#### Barmah Forest infection

In second quarter of 2009, 11 cases of Barmah Forest virus infection were reported compared to eight in the same period of 2008. Cases comprised males and females, with an age range of 14–76 years.

#### Ross River infection

Between April and June 2009 inclusive, 55 cases of Ross River virus infection were reported (17 males, 38 females), compared to 35 in the same period of 2007. Unusually, two cases were aged less than 15 years (age range 6–69 years). Although low compared to epidemic cases numbers, these data are higher than the background level of Ross River virus infections reported in previous inter-epidemic periods. For example, 18 cases were reported in the same period of 2005.

#### Dengue fever

During the second quarter of 2009 three cases of dengue fever were recorded (one male, two females), compared to eight cases in the same period of 2008. Cases were adults aged 18–60 years. All infections were acquired overseas; two in south-east Asia and one on the Indian sub-continent.

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## Public Health Bulletin

### Malaria

The 10 cases of malaria reported in the second quarter of 2009 were all acquired overseas. Cases comprised four females and six males; aged 12–59 years.

Two of four cases caused by *Plasmodium falciparum* reported exposure in Africa; the other two were overseas students but the country of origin was not specified. Six cases were caused by *P. vivax*; two acquired the infection in India and another in the Pacific islands. Three further cases were overseas students but the country of acquisition of infection was not specified.

## ZOONOSES

### Brucellosis

Although notifications of brucellosis are rare in South Australia, a second case for the year was reported in this quarter of 2009. The case was a 22 year-old male who had been on an overseas holiday to India, and during the incubation period he had consumed food consistent with exposure. Molecular tests by SA Pathology (IMVS) identified the causative agent as *Brucella melitensis*.

## VACCINE PREVENTABLE DISEASES

### Influenza

In addition to the collection of influenza data through the state notifiable diseases system since May 2008, the DSIS undertakes syndromic surveillance by collating datasets from laboratory and clinical sources to describe influenza-like illness in South Australia.

SA Pathology laboratories report positive influenza tests to the DSIS. Clinical diagnoses of 'influenza-like illness' are collected from two sources: Royal Australian College of General Practitioners members participating in the Australian Sentinel Practice Research Network (ASPREN), and emergency departments in several public hospitals. These combined data provide a weekly picture of confirmed influenza infections and influenza-like illness activity across the state.

On 27 April 2009 the World Health Organization (WHO) Director-General raised the global level of influenza pandemic alert from phase 3 to phase 4, as 16 countries reported cases of Human Swine Influenza A (H1N1) infection ('Swine flu').

By 29 April the influenza pandemic alert level was progressed to phase 5, accompanied by a call from the Director-General for countries to immediately activate pandemic preparedness plans and remain on high alert for unusual outbreaks of influenza-like illness and severe pneumonia. At this time, Australia had no reported cases but a close watch was maintained on more than 100 people potentially exposed to 'Swine' influenza. Officially, 29 countries had reported 3440 cases of Human Swine Influenza A (H1N1). By mid May, after the first case was identified in Queensland, the Australian response phase moved from Delay to Contain. Subsequently, the first cases of Human Swine Influenza A (H1N1) were recorded in South Australia in people who had recently travelled interstate.

On June 11 the WHO Director-General announced the start of the 2009 influenza pandemic, now termed Pandemic H1N1 2009. In Australia, the response focus altered to Modified Sustain phase activities. By mid June the Australian response phase progressed from Modified Sustain to Protect, with activities focusing on 'at risk' populations in the community. The Australian response to Pandemic H1N1 2009 continued in Protect phase until the end of June.

Activities in DSIS relating to pandemic influenza ranged from contact tracing, quarantine checks, monitoring the number of cases, collecting data and issuing reports to answering enquiries from health professionals and members of the public.

In the second quarter of 2009, 1156 influenza cases were recorded, compared to 25 in the same period of 2008 (Figures 1, 2). Among these, 1145 cases were caused by influenza A virus, and 11 were due to infection by influenza B virus. Cases comprised 622 males and 534 females aged from <1–82 years. However, 66% of cases were less than 30 years of age and only 3% were aged more than 60 years (Figure 3).

Among cases of influenza A, 475 were further characterised as influenza A H1N1 2009; these cases comprised 258 males and 217 females. Only eight cases were more than 60 years of age.

Figure 1 illustrates the difference in diagnoses per week from 2001 to 2009 for laboratory confirmed cases of influenza.

# Communicable Disease Control Branch Report

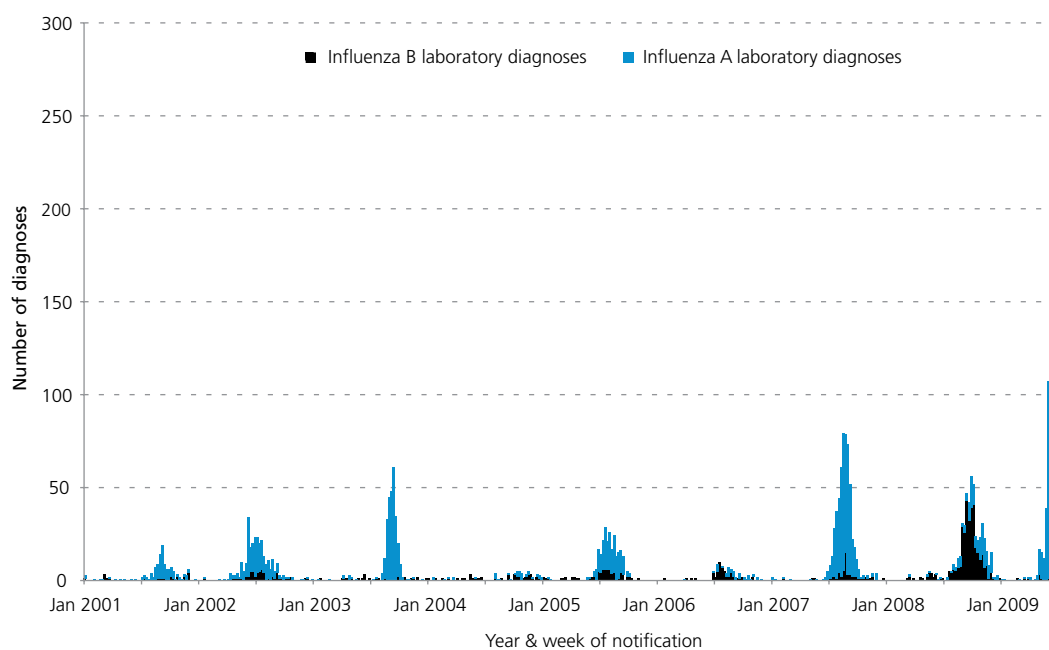


Figure 1: Laboratory influenza diagnoses in South Australia, 1 January 2001 to 30 June 2009  
 Information about influenza and respiratory diseases is available at: [www.health.sa.gov.au/pehs/](http://www.health.sa.gov.au/pehs/) & [www.flu.sa.gov.au](http://www.flu.sa.gov.au).

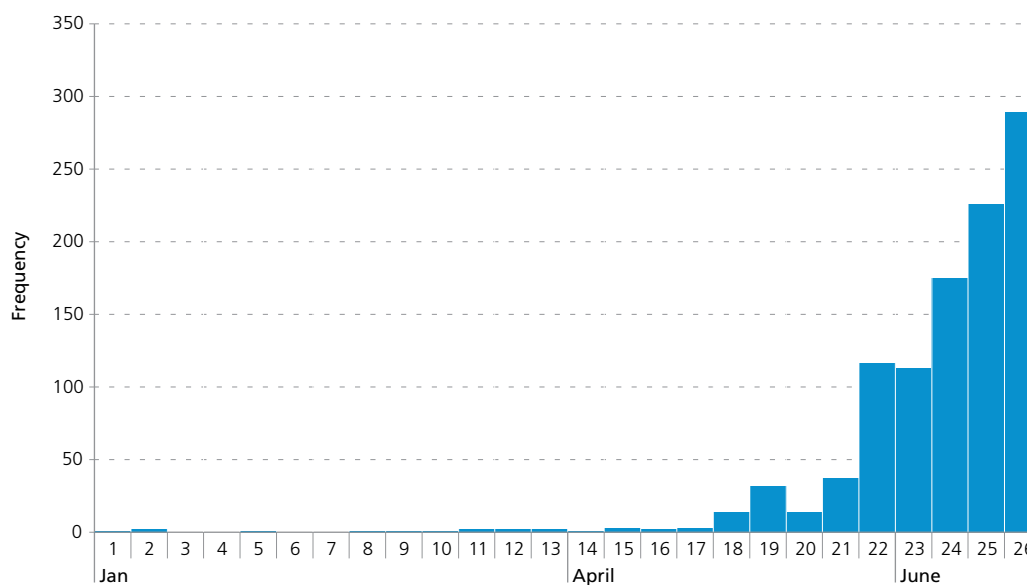


Figure 2: Influenza cases in South Australia by week of notification, 1 January 2009 to 30 June 2009

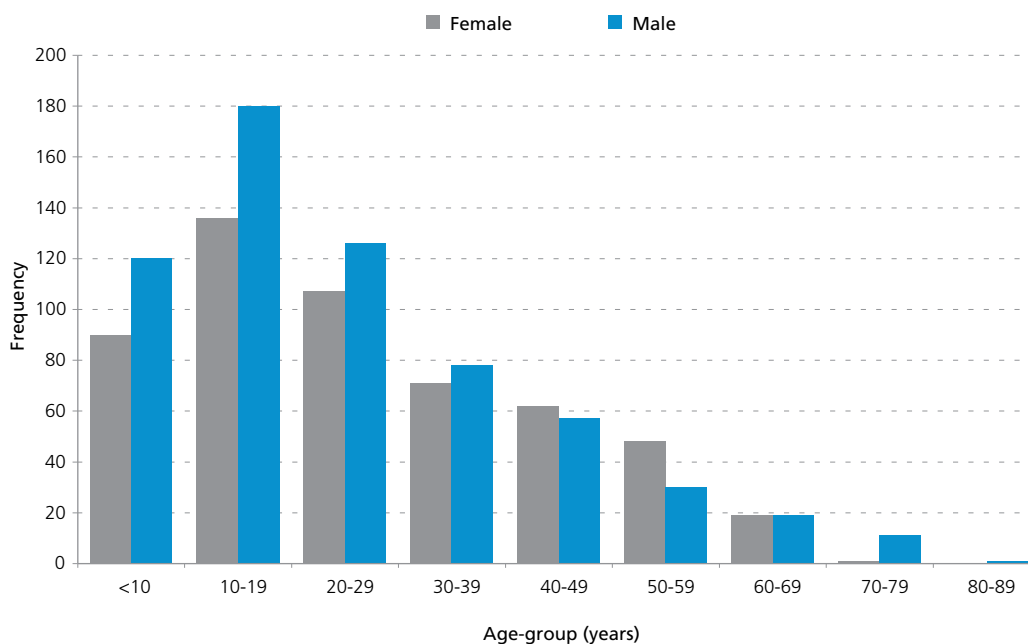


Figure 3: Influenza cases in South Australia: sex by age group, 1 January 2009 to 30 June 2009

**Invasive *Haemophilus influenzae***

The introduction of Hib vaccine in 1997 resulted in a reduction in the number of cases of invasive disease in children due to *Haemophilus influenzae* type b. However, cases of disease continue to occur in adults and unimmunised or partially immunised children.

Two cases of invasive *Haemophilus influenzae* disease were reported during the second quarter of 2009 in males aged five and 35 years. Both cases were hospitalised because of this disease.

The adult case was Aboriginal, and his illness was caused by *Haemophilus influenzae* type b. The *H. influenzae* isolate from the other case was an unencapsulated strain (untypeable).

**Invasive pneumococcal disease**

*Streptococcus pneumoniae* is the cause of invasive pneumococcal disease and many individuals carry the organism in the respiratory tract without symptoms. *S. pneumoniae* is a frequent cause of otitis media in children, and pneumonia in all age groups. Two vaccines help protect against some of the 90 identified serotypes of *S. pneumoniae* infection. A 23-valent

vaccine is commonly used for adults; and a seven-valent vaccine for infants and children.

Between 1 April and 30 June 2009, 34 cases of invasive pneumococcal disease were reported compared to 32 cases in the same period of 2008 (Figure 4). Cases comprised 17 males and 17 females, with an age range from <1–89 years; of these, six were less than 5 years of age. Cases were residents in a range of locations across the state and four were reported as Indigenous. Most cases were hospitalised (33 of 34), and three deaths were attributed to the disease.

**Measles**

Measles is a highly contagious viral infection spread by the respiratory route and is rare in South Australia. Vaccine protecting against measles has been available in Australia since 1969, and immunisation cover in South Australia is high. Susceptible contacts are unvaccinated or partially vaccinated people who have been exposed to a case. After exposure, susceptible contacts can be offered quarantine, vaccine or immunoglobulin, as appropriate, to avert further spread of measles.

## Communicable Disease Control Branch Report

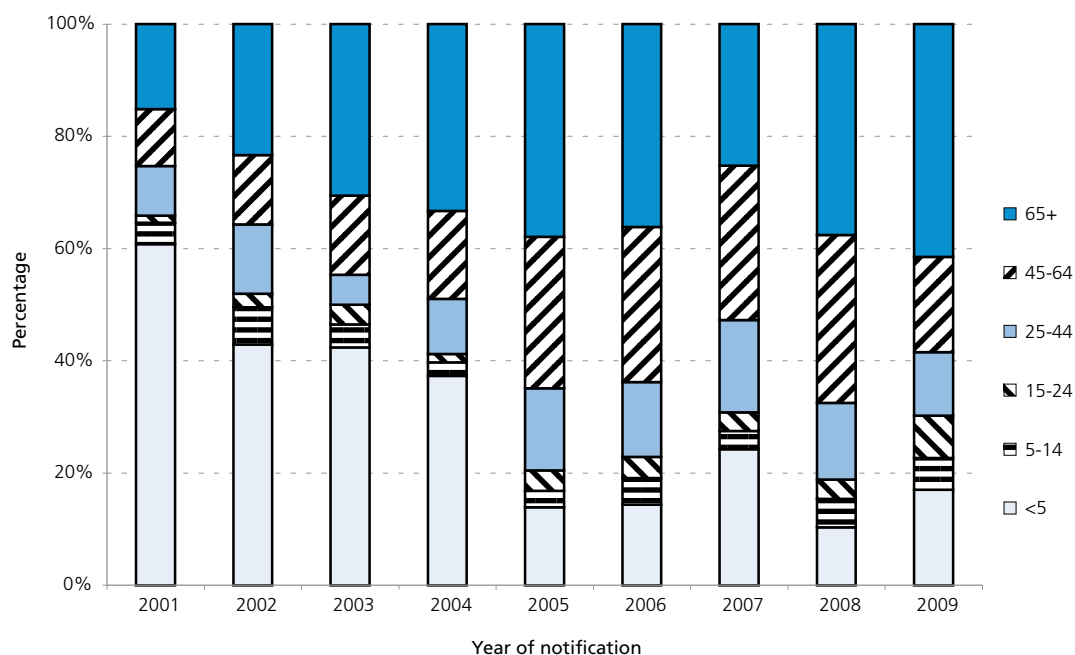


Figure 4: Notified cases of invasive pneumococcal disease in South Australia, by age-group proportions and year of notification, 1 January 2001 to 30 June 2009

Two unlinked cases of measles were reported between 1 April and 30 June 2009. The cases were both males aged 34 years from metropolitan Adelaide, and both acquired the infection overseas; one in northern Asia, the other in south-east Asia. One case travelled from Sydney to Adelaide during the infectious period.

Intense contact tracing by both DSIS staff and infection control personnel at major Adelaide hospitals resulted in administration of vaccine and immunoglobulin to many people, including work colleagues and hospital emergency department attendees. Information was distributed to many others in accordance with national guidelines. All commercial premises known to have been visited by the cases were issued with information.

Public Health Alerts informed medical practitioners to the potential presence of measles in metropolitan and rural areas of SA, and a media release alerted the public to locations of potential exposure. SA Pathology (IMVS) undertook daily measles testing to provide timely identification of new cases. All potential cases were followed up by CDCB staff.

No further cases were detected from either case, and after two full incubation periods the level of alert reverted to normal.

### Mumps

Before national vaccination, mumps was a common childhood disease in SA, with peak incidence in the 5–9 year age-group. Many young adults currently aged between 28–42 years have only received a single dose of mumps vaccine, and these individuals are encouraged to seek further vaccination. Peak infection rates have been reported in older adolescents and young adults since 2000. Cases are confirmed by detection of mumps-specific IgM antibody and a clinically compatible illness.

Five cases of mumps were notified during the first quarter of 2009, compared to two in for the same period in 2008. The cases comprised one male and four females aged 11–54 years; the 11 year-old child had received two doses of mumps vaccine in the past. One case was acquired overseas, the others locally. Four cases lived in metropolitan Adelaide and one in rural South Australia. No epidemiological links were ascertained between cases.

## Pertussis

More than 40 years since pertussis vaccination was introduced in SA, *Bordetella pertussis* infection (whooping cough) remains a common community infection. Pertussis demonstrates variation in time, appearing as dramatic increases in disease, roughly every 3 to 5 years.

An apparent escalation of pertussis cases since 2004, when cases peaked in October, continued until late in 2006. Some of this increase is now thought to reflect changes in laboratory testing, and some reported cases may have reflected past, rather than current infection. However, increased numbers of pertussis have been recorded since September 2008.

Between April and June 2009, 927 cases of pertussis were notified, compared to 164 in the same period of 2008 (Figure 5). Cases comprised 394 males and 533 females with an age range of <1–92 years; mean age 39 years. However, the 10–19 year age-group was the largest, with 137 cases. Cases were geographically dispersed throughout SA. Nine cases were reported as Indigenous, including a 1 year-old child who was vaccinated for age.

In contrast to recent years, only 61% cases were more than 20 years of age at diagnosis, compared to 85% for the same quarter in 2008. Among 45 cases aged less than 5 years were 15 cases who were less than 12 months-old at diagnosis; 7 were fully or partially vaccinated; 5 were not vaccinated and in three instances, the vaccination status could not be determined.

Two cases of pertussis occurred in children who attended childcare. Information and advice was provided to the childcare centres, and some children were recommended to seek vaccination.

## Rotavirus

Gastrointestinal illness due to rotavirus became notifiable in South Australia in May 2008.

In the second quarter of 2009, 164 cases were notified to the CDCB. Cases comprised 93 males and 70 females aged from <1–85 years; 137 cases were less than 5 years of age.

Of the 16 cases aged less than one year, 10 had been fully or partially vaccinated. Four children had not been vaccinated including one child who was too young for vaccination; the vaccination status for two was not known.

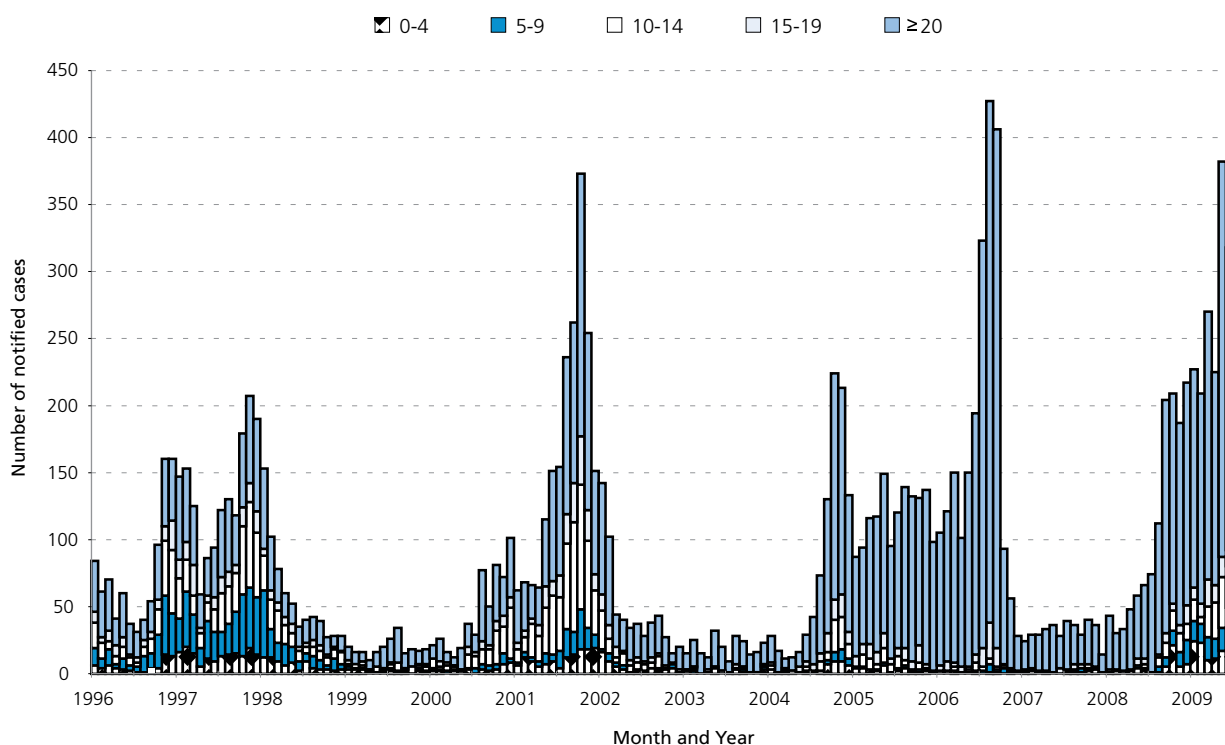


Figure 5: Notified cases of Pertussis infection, by month of notification and age group, 1 January 1996 to 30 June 2009. This figure demonstrates the impact of vaccination on the temporal frequency of pertussis cases; first in the 5–9 then 10–14 and, latterly, 0–4 year age-groups. However, in 2009 a resurgence is, in part, due to the sensitivity of molecular tests (PCR).

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# Communicable Disease Control Branch Report

## Varicella

Among 442 cases of varicella infection reported during the second quarter of 2009 were 196 males and 246 females with ages ranging from <1–92 years.

Medical notification characterised 114 infections as chicken pox. These had an age range of <1–87 years, but 89% of cases were less than 30 years of age. A further 211 cases were characterised as shingles; these ranged in age from 4–92 years; 85% were 20 years of age or more. As yet, 117 varicella infections have not been further classified.

## GASTROINTESTINAL DISEASES

The 791 reported cases of gastrointestinal diseases in the second quarter of 2009 were consistent with expected seasonal notifications. In contrast to recent years, gastrointestinal illnesses were responsible for 22% of all notifications during this quarter, compared to 53% for the corresponding period of 2008. The difference is attributable to the current increase in respiratory disease notifications.

Relatively few outbreaks of gastrointestinal illness required investigation during the quarter. Two outbreaks of viral gastroenteritis due to norovirus infection were reported, and one outbreak of gastrointestinal illness where no agent of infection was detected. Five clusters of salmonellosis were investigated; one associated with a restaurant and another with a function; three were community outbreaks.

## Campylobacteriosis

*Campylobacter* infection was the most commonly reported gastrointestinal disease in South Australia during the quarter and accounted for 61% of these diseases.

In the second quarter of 2009, 482 Campylobacteriosis notifications were received for cases resident in SA, both metropolitan and rural, compared to 526 cases during the first quarter of the year. Cases comprised 261 males and 221 females, with an age range of <1–92 years; 19% of cases were aged less than 10 years at diagnosis.

No clusters of Campylobacteriosis were detected in the period under review.

## Cryptosporidiosis

Cryptosporidiosis is a parasitic infection of the bowel and *Cryptosporidium* parasites can be found in a range of animals as well as humans. The infection is spread by the faecal-oral route and commonly occurs by drinking contaminated water; accidental ingestion can occur whilst swimming. Those diagnosed with cryptosporidiosis are excluded from swimming for 14 days after symptoms disappear.

Thirty-five cases were reported second quarter of 2009 compared to nine for the same period in 2008. Cases comprised 11 males and 24 females, with an age range of 1–87 years. Residents from both metropolitan and rural areas of SA were among the cases.

Cryptosporidiosis cases with reported risks potentially requiring public health action are referred to local government EHOs, as well as the Water Quality Section of SA Health's Scientific Services Branch.

## Hepatitis A

Hepatitis A virus causes acute infection by the faecal-oral route in humans, varying in clinical severity. Most cases in SA are imported from countries where hepatitis A is endemic. Symptoms 15 to 50 days after infection can include obvious jaundice. Exposure can be difficult to pinpoint because of an extended incubation period of 15–50 days. Outbreaks due to contaminated food or water have been reported in Australia.

Thirty-nine cases of hepatitis A were reported during the second quarter of 2009, compared to five in the same period of 2008 (Figure 6). Cases comprised 17 males and 22 females aged 6–69 years. Four cases reported recent overseas travel to countries where hepatitis A infection is endemic. Two may have been exposed to hepatitis A virus interstate; and 33 were acquired locally. Contact tracing identifies close contacts of hepatitis A cases and vaccine or immunoglobulin, as appropriate, is recommended in accordance with surveillance guidelines.

The increase in locally-acquired cases was investigated by the DSIS. Cases were South Australian residents with serologically confirmed hepatitis A and no overseas travel or contact with a hepatitis A case during the incubation period. Concurrently, other states recorded increases in cases of locally-acquired hepatitis A. Standard risk factor questionnaires collected social, environmental and food-related data from cases. Food items consumed at common outlets formed hypotheses



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## Communicable Disease Control Branch Report

Laboratory tests characterise *Salmonella* isolates by serotype and phage type. Among the serotypes were seven cases caused by *S. Saintpaul*, these cases were scattered in place and time. Although *S. Enteritidis* is rarely acquired in SA, this serotype accounted for five infections; three had acquired the infection overseas, and travel history is not available for the other two cases.

Among 108 cases attributed to infection by the *S. Typhimurium* serotype, were isolates classified into 18 different phage types. *S. Typhimurium* phage type 193 caused 25 cases, and *S. Typhimurium* phage type 108 caused 23; *S. Typhimurium* phage type 44 and *S. Typhimurium* phage type 9 each accounted for 19 cases and *S. Typhimurium* phage type 135 was responsible for 15 cases.

### Outbreak investigations

#### *S. Typhimurium* phage type 108

Among *Salmonella* outbreaks investigated in the second quarter of 2009 was a cluster of 10 cases caused by *S. Typhimurium* phage type 108. Eight of the 10 cases were interviewed as part of a national OzFoodNet investigation. Molecular typing (MLVA) by SA Pathology (IMVS) showed three cases matched the national outbreak strain. No common foods or risk factors were identified.

#### *S. Typhimurium* phage type 44

One community outbreak of 10 cases caused by *S. Typhimurium* phage type 44 was investigated. Cases occurred across metropolitan Adelaide. One case was found to be due to person-to-person transmission and was excluded from further investigation. Interviews with other cases did not elicit any common links and no source was identified.

An investigation into suspected foodborne illness associated with attendance at a catered function commenced when testing confirmed *S. Typhimurium* phage type 44 in two attendees. Nine of approximately 200 attendees were confirmed as infected with *S. Typhimurium* phage type 44, and a number of others reported illness. A cohort study was used to investigate this outbreak. Environmental samples were collected and tested. A sample of aioli grew *S. Typhimurium* phage type 44, supporting the cohort study analysis which demonstrated an association between illness and the consumption of aioli. *Salmonella* was not detected in any other food samples.

#### *S. Typhimurium* phage type 193

A cluster of ten community cases of *S. Typhimurium* phage type 193 was also investigated. Isolates from all cases had the same antibiotic resistance pattern and five had identical molecular profiles (MLVA). Hypothesis generating interviews did not reveal any obvious links, and the source of illness was not identified.

#### *S. Typhimurium* phage type 135

An outbreak of cases due to *S. Typhimurium* phage type 135 was investigated in May. Interviews determined that eight of nine cases ate fried ice cream at a common restaurant. An environmental investigation collected samples for testing. However, *Salmonella* was not isolated from any samples. Fried ice cream was removed from the menu and advice provided regarding the use of pasteurised egg for fried ice cream batter. No further cases of illness were reported.

### Shiga toxin producing *Escherichia coli* (STEC)

Among the enterohaemorrhagic *Escherichia coli* (EHEC) bacterial strains are Shiga-toxin producing *E. coli* (STEC). Some of these infections cause bloody diarrhoea, and a small proportion of cases progress to Shiga toxin-mediated haemolytic uraemic syndrome (HUS). This syndrome can cause severe, chronic disease. In South Australia, faecal specimens from patients with bloody diarrhoea are screened in a central SA Pathology laboratory for genes encoding the STEC toxins, enhancing prompt notification of such infections.

Between 1 April and 30 June 2009, 12 cases of STEC infection were reported, compared to 10 for the same period in 2008. All cases were interviewed with a standard risk questionnaire to collect comprehensive food and environmental data; no links were found between cases. The age range of cases (5 males, 7 females) was 2–70 years. Nine cases were residents in a range of rural locations across SA. Three cases were admitted to hospital as a result of the infection.

**Shigellosis**

*Shigella* bacteria cause a gastrointestinal infection with typical symptoms including fever, diarrhoea, vomiting and stomach cramps. *Shigella* bacteria are generally spread by person-to-person contact when contaminated objects or food are put in the mouth. Few *Shigella* bacteria are needed to cause an infection. These bacteria do not infect animals, nor do they not survive very long outside the body. Appropriate antibiotic treatment shortens illness and reduces the risk of spread to others.

Ten shigellosis cases were reported in the second quarter of 2009, compared to 42 in the same quarter of 2008. Cases comprised equal numbers (5) of males and females with an age range of 1–70 years. Three cases resided in rural areas of SA. Five cases acquired the infection overseas and another had a household guest from overseas. Among the notifications were two reports of shigellosis in Indigenous Australians.

Apart from one infection caused by *Shigella sonnei* biotype a, all other cases were due to *Shigella flexneri*. The most common isolates were *S. flexneri* 3a (4 cases) and *S. flexneri* 4a (3 cases). Other *Shigella flexneri* biotypes caused three cases.

**Typhoid fever**

Most infections of *Salmonella* Typhi detected in SA are acquired overseas, and untreated typhoid fever has significant mortality. Typhoid is transmitted by consumption of food or water contaminated with *S. Typhi*. Unlike other *Salmonella* infections, up to 10% of those infected can become asymptomatic carriers of the infection.

One case of typhoid fever was notified in a 47 year-old male who had recently returned from India. Contact tracing covered the period of infectiousness in Australia and close contacts were tested; none became infected.

**Yersiniosis**

Three cases of *Yersinia enterocolitica* infection were notified between April and June 2009, inclusive, consistent with five cases in the same period of 2008. Cases comprised one male and two females, aged 3–64 years.

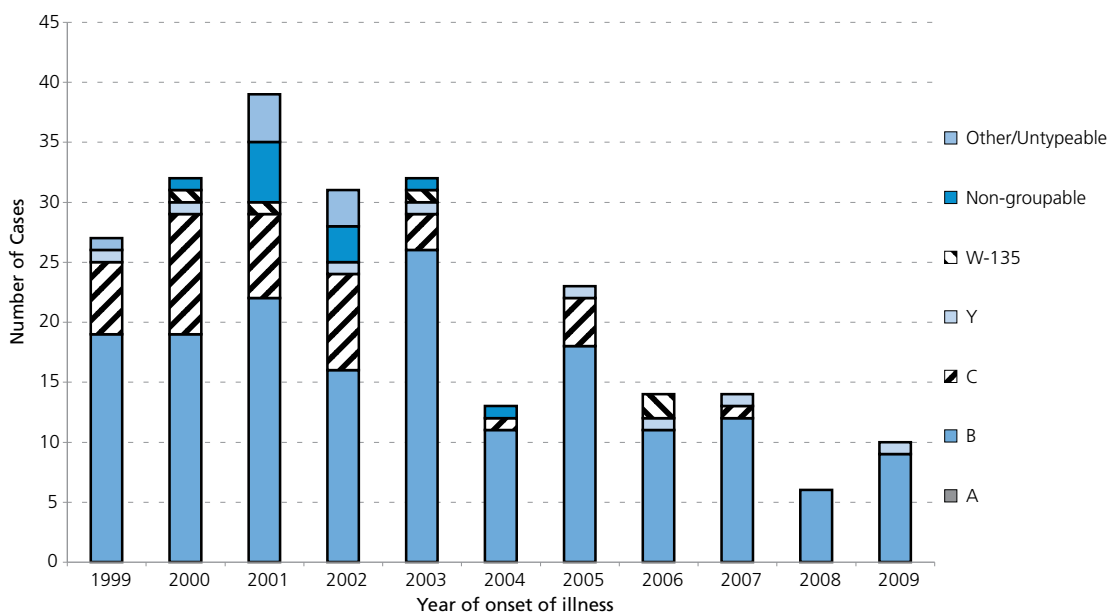


Figure 7: Notified cases of invasive meningococcal disease, by date of onset and serogroup, 1 January 1999 to 30 June 2009

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# Communicable Disease Control Branch Report

## OTHER DISEASES

### Invasive meningococcal disease

In Australia past notifications of invasive meningococcal disease caused by *Neisseria meningitidis* included a proportion of cases attributed to *N. meningitidis* serogroup C and were associated with severe disease. Routine meningococcal C vaccination, implemented in 2003, offers vaccine to children and adolescents in the high risk age groups of 0–4 and 15–24 years. This bimodal age distribution of cases is true of SA. The predominant serogroup of *N. meningitidis* responsible for disease remains serogroup B, for which no vaccine is available.

Ten cases of invasive meningococcal disease were reported in the second quarter, compared to five the first three months of 2008. Cases comprised six males and four females, with an age range of <1–54 years. In accordance with national guidelines, immediate contact tracing occurs with all cases; chemoprophylaxis is provided for close contacts as well as vaccination, where appropriate.

Nine infections in this quarter were due to *N. meningitidis* serogroup B, and one to *N. meningitidis* serogroup Y (Figure 7).

### Legionellosis

Eleven sporadic cases of Legionellosis were reported during the first quarter of 2009, all from metropolitan SA. Laboratory tests attributed seven cases to *Legionella pneumophila* and two cases to *Legionella longbeachae*.

Four cases caused by *L. pneumophila* Serogroup 1 were reported in three males and one female aged 61–79 years; all from metropolitan Adelaide. All were interviewed and environmental investigations by Applied Environmental Health Branch did not elicit any common source. Three cases caused by *L. pneumophila* Serogroup 2, two males and one female aged 52–78 years, both from metropolitan areas, were also investigated and no links were found between them.

Four cases due to *L. longbeachae* were females aged 50–69 years with risks consistent with infection, and an 82 year-old male with no obvious risk factors.

**These data are provisional and subject to further revision.**

# Public Health Bulletin

Table 1: Notifiable diseases in South Australia: 1 January to 30 June 2009 and annual comparisons 2003–2008.

Notifiable disease	2003		2004		2005		2006		2007		2008		2009	
	Apr Jun	Total	Apr Jun	Total	Apr Jun	Total	Apr Jun	Total	Apr Jun	Total	Apr Jun	Total	Apr Jun	Year to-date
Anthrax	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Barmah Forest Virus infection	1	1	2	6	3	27	46	188	14	60	8	38	11	21
Botulism	0	0	0	0	0	0	0	0	0	1	0	0	0	0
Brucellosis	0	0	0	0	0	0	0	0	0	1	0	0	1	2
Campylobacteriosis	680	2630	405	1950	410	2089	476	2447	669	2731	508	1984	482	908
Chlamydia trachomatis (genital) <sup>1</sup>	502	1993	551	2427	640	2706	731	3127	805	3480	903	3652	668	1752
Cholera	0	2	0	0	1	2	0	0	0	1	0	1	0	0
Chikungya <sup>3</sup>	0	0	0	0	0	0	0	0	0	0	0	1	0	0
Creutzfeldt-Jakob disease	0	0	1	1	0	0	0	0	1	3	0	3	0	1
Crimean-Congo Haemorrhagic Fever	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cryptosporidiosis	26	81	14	76	47	160	77	191	104	459	9	61	35	70
Dengue Fever	4	10	0	4	1	5	4	10	3	23	8	31	3	11
Diphtheria	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Donovanosis <sup>1</sup>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ebola Fever	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gonorrhoea <sup>1</sup>	100	297	131	371	147	401	200	503	184	459	174	487	141	241
Haemophilus influenzae infection	2	11	3	17	2	13	0	8	2	18	5	11	2	6
Hepatitis A	4	13	1	12	2	9	3	9	1	5	5	19	39	42
Hepatitis B <sup>1</sup>	63	230	70	265	105	316	68	336	164	519	100	437	129	229
Hepatitis C <sup>1</sup>	179	824	198	778	184	720	145	694	140	612	134	581	103	204
HIV <sup>1</sup>	14	45	11	55	19	50	14	61	12	55	10	47	12	27
Hydatid	1	8	1	5	0	2	1	2	4	7	3	13	0	1
Influenza <sup>3</sup>	17	309	14	72	48	273	8	87	10	280	13	489	1156	1170
Lassa Fever	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Legionellosis	9	66	11	48	14	57	14	62	2	20	4	18	11	20
Leprosy	0	0	0	0	0	0	0	1	1	2	0	0	0	0
Leptospirosis	0	2	0	1	1	3	0	1	0	0	0	0	0	0
Listeriosis	1	1	1	3	0	6	0	4	0	7	0	1	0	4
Lyssavirus infection	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Malaria	11	27	7	20	6	43	6	34	10	24	3	17	10	13
Marburg Disease	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Measles	2	25	2	6	0	0	9	9	0	0	0	2	2	3
Meningococcal disease	4	31	5	13	3	23	6	17	3	16	5	19	10	14
Mumps	3	12	1	3	0	8	4	20	5	22	2		5	10
Mycobacterial Disease (non-Tuberculous) <sup>1</sup>	10	48	17	67	25	68	10	54	23	68	14	55	16	37
Ornithosis	0	1	2	5	0	0	0	0	0	3	0	0	1	1
Paratyphoid Fever	0	1	4	6	0	6	2	4	1	4	1	2	2	2
Pertussis	64	232	56	909	358	1409	445	2152	97	382	167	1332	927	1638
Plague	0	0	0	0	0	0	0	0	0	0	0		0	0
Pneumococcal disease (invasive)	42	167	54	199	39	134	26	104	33	91	32	117	34	53
Poliomyelitis	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Q Fever	8	12	8	36	9	20	5	16	11	24	7	16	0	2
Ross River Virus infection	4	20	10	55	11	92	36	362	58	214	35	182	55	132
Rotavirus infection <sup>3</sup>	-	-	-	-	-	-	-	-	-	23	132	164	286	
Rubella	1	1	0	2	0	0	0	2	1	1	0		0	1
Salmonellosis	110	434	142	521	131	576	148	550	215	868	176	646	208	383
Severe Acute Respiratory Syndrome (SARS)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Shigellosis	4	27	13	46	8	41	6	28	12	59	42	143	10	28
Smallpox	0	0	0	0	0	0	0	0	0	0	0	0	0	0
STEC / HUS / TTP	9	41	6	33	20	38	9	37	8	42	10	39	12	35
Suspected Food Poisoning	0	20	12	74	8	66	215	513	12	106	11	62	1	3
Syphilis <sup>1</sup>	5	21	4	14	2	13	16	43	20	50	15	52	22	29
Tetanus	0	0	1	2	0	0	0	0	0	0	0	0	0	0
Tuberculosis <sup>2</sup>	13	47	15	60	12	46	14	72	17	59	9	59	8	27
Typhoid Fever (S typhi)	1	2	1	3	1	2	0	2	1	5	1	3	1	1
Varicella infection	234	1226	389	1573	367	1695	338	1673	395	1752	362	1787	442	855
Yellow Fever	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Yersiniosis	3	18	0	6	2	7	3	11	1	17	5	20	3	5

<sup>1</sup> Data collected by Sexually Transmitted Diseases Services    <sup>2</sup> Data collected by SA Tuberculosis Services    <sup>3</sup> notifiable since 1 May 2008



# Public Health Bulletin SA

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