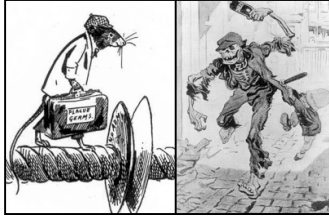


Epidemics and Pandemics in Australia

Prof. Peter Curson, University of Sydney

Sponsored by Johnson & Johnson Medical www.neutrogena.co.nz

Epidemics and Pandemics in Australia – Signposts, Lessons & Challenges



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MEDICAL NEW ZEALAND

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Epidemics & Pandemics and Australia

- Long history of epidemic/pandemic encounters.
- Limited demographic effects but major psycho-social impacts.
- Some became prime cause of public health reform (e.g. plague and smallpox).
- Challenged government's comprehension and management of extreme natural events.
- Throw into sharp perspective the internal structure, workings and hidden tensions and conflicts of Australian society.
- Highlight inadequacies and deficiencies in response procedures and the difficulties of (Colony-Colony) State-State and State-Commonwealth cooperation.

Pandemics and Australia/New Zealand

Year	Disease	Aust.Affected	Deaths	NZ Deaths
1830-80	Scarlet Fever	1863-76	12,000	700
1836-38	Influenza	1838	?	500[1839]
1857-60	Influenza	1860-64	?	?
1894-1930	Plague	1900-09, 1921-25	467 68	9
1897-1940	Smallpox	1913-17	4	55
1889-91	Influenza	1891	2,500	1000[*90-94]
1903-56	Polio	1903-61	2,000	600
1918-19	Influenza	1919	14,000	8573
1918-28	Encephalitis Lethargica	1918-27	600	?
1957-58	Influenza	1957-58	800	?
1968-69	Influenza	1968-69	1,000	?
1982 -	HIV/AIDS	1983 -	6,611	650

Major Dengue Epidemics 1897 -1993

	Cases	Deaths	Location
1897-98	c. 50,000	184	Qld/NSW
1904-05	c.150,000	c.220	Qld/NSW
1910-11	c. 80,000	c.120	Qld/NSW
1925-26	c.560,000	147	Qld/NSW
1941-43	c. 35,000	?	NT/Qld/NSW
1981-82	c. 3,000	0	Qld
1992-93	c. 30,000	0	Qld

Two Major Childhood Epidemics

1866-67 Measles c.12,000 deaths
[8,600 in NSW. Possibly 80% of children under 5 years of age affected in Sydney]

1875-76 Scarlet Fever More than 8,000 deaths [3,225 in Vic – 87% = 0-10 years. 55% 0-5. Approx. 1,500 deaths in NSW, 728 in SA] [1876-77 NZ affected – 331 European deaths]

Mortality & Morbidity “Crises”

	Cases	Deaths	NZ Deaths
• 1860 Influenza	[90% of Hobart ill] (Hall)		
• 1866-67 Measles	?	12,000	?
• 1866-68 Scarlet Fever	?	2,000	
• 1873 Pertussis			356*
• 1875 Measles	?	2,675	344 (1874-75)*
• 1875-76 Scarlet Fever	80,000	8,000	331 (1876-77)
• 1891 Influenza	800,000	3,000	800 (1890-94)
• 1893 Measles	80,000	2,500	511*
• 1898 Measles		1,452	193 (1898-99)*
• 1904-05 Dengue	100,000	220	
• 1907 Pertussis	25,000	945	307*
• 1910-11 Dengue	80,000	120	
• 1915-16 Scarlet Fever	50,000	300	96*
• 1919 Influenza	2,000,000	14,000	8573 (1918)
• 1920 Measles	40,000	500	169 (1920-21)*
• 1925-26 Dengue	560,000	147	
• 1937-38 Polio	4,550		39 (1937)
• 1938 Measles			375
• 1940 Rubella			
• 1949-56 Polio	16,000	850	172
• 1957 Influenza		900	?
• 1969 Influenza		1200	?

* European population only.

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Scarlet Fever 1875 – 1876 – One of Australia's Greatest Childhood Epidemics



NSW Parl. Papers



- Probably more than 8,000 deaths
- 3,225 deaths in Victoria – 87% under 10 years of age
- More than 2,000 deaths in NSW
- Epidemic also affected SA and Tas.
- New issues of isolation, disinfection and quarantine
- Restrictions on children attending school
- Cleansing and fumigation public places and houses
- Rubbish removal
- Effective drainage
- Unpolluted water
- Empowerment of Boards of Health
- Medical attention for sick at home

Smallpox in Sydney 1881 - 1882



The Bulletin

- 163 cases, 41 deaths in Sydney
- Formal isolation and quarantine cases and contacts [1900]
- Cleansing, scavenging and fumigation
- Vaccination [61,000] "Priority List"
- Media involvement
- Widespread human reaction – fear and panic
- Scape-goating and 'dobbing'
- Disease and the political agenda

Influenza 1890 - 1891



The Bulletin

- More than 800,000 cases.
- 130,000 cases, 234 deaths in Sydney
- Australia swept up in pandemic
- Established isolation and quarantine procedures not appropriate
- Public education campaign
- 'Home quarantine'
- Avoidance of crowds
- Personal hygiene and avoidance strategies

Plague 1900- 09, 1921-25



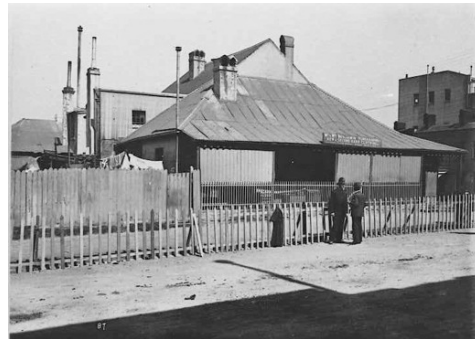
The Bulletin

- More than 1370 cases and 535 deaths (21 cases in NZ)
- 607 cases, 197 deaths in Sydney, 377 cases and 159 deaths in Brisbane
- Formal isolation and quarantine of cases and contacts [1800 in 1900]
- Area quarantine, cleansing, fumigation, demolition, special burials
- Vector control program "Rat Wednesday" 1902
- Inoculations [10,000 in 1900]
- Media involvement
- Public reaction – fear, hysteria and panic
- Scape-goating
- Fear of plague produced Dept. of Public Health in NZ

Removal of Plague Case The Rocks 1900



Quarantine & Barricades 1900



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Demolition of Chinese Dwelling 1900



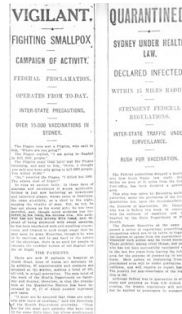
Quarantine & Fumigation 1900



Cleansing Operations 1900



Smallpox in NSW 1913 - 1917



- ◆ More than 2,900 cases, 4 deaths in NSW [2,019 cases in Sydney - 1517 in 1913]
- ◆ Federal Quarantine imposed
- ◆ Commonwealth/State rivalry/confrontation
- ◆ Emotional public debate re compulsory vaccination
- ◆ Community response re vaccination [c. 520,000]

Sydney Morning Herald

Influenza 1918-1919



- ◆ 1918 "13 Point" plan
- ◆ 30-37% of Australians had flu.
- ◆ c.14,000 deaths [42% of all deaths in the City of Sydney in 1919 were from flu]. 8,573 deaths in NZ. NZ death rate - 7.4/000 compared with 2.6/000 in Australia. Maori death rate - 42.3/000.
- ◆ Pressure on health care facilities- Jan-Sept more than 14,000 admitted to hospital in NSW - only 2,000 beds available.
- ◆ Public reaction
- ◆ State, Commonwealth, local antagonisms/rivalries - lack of agreement. States went their own way.
- ◆ Closure public places/events
- ◆ Wearing of masks
- ◆ Border isolation camps
- ◆ Role of media
- ◆ NZ pandemic produced new Ministry of Health

Challenges & Lessons From the Past

- ◆ Cooperation between all Levels of Government, business and the local community.
- ◆ Understanding & Managing Public Reaction.
- ◆ Confronting Vested Interests.
- ◆ Issues of Isolation & Quarantine.
- ◆ Impacts on the Healthcare System.
- ◆ Issues of Inoculation & Vaccination.
- ◆ Targeting Vectors.
- ◆ The Role of the Media.
- ◆ Changing Public Behaviour.
- ◆ Business, trade and Epidemics.

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Cooperation Between all Levels of Government



The Bulletin

- ◆ Cooperation can not be taken for granted.
- ◆ History of conflict, rivalries and jealousies between local authorities, the business community and central government, between States and with Commonwealth.
- ◆ In times of crisis, formal accords and agreements mean nothing – e.g., 1913, 1919, 1921

Understanding Public Reaction & Managing Fear



The Bulletin

- ◆ Dissonance between how experts and ordinary people perceive risk.
- ◆ Deep-seated fears about infection and contagion.
- ◆ Judgements made on basis of familiarity, control and consequence.
- ◆ Panic, fear and hysteria - Emotional contagion.
- ◆ Fear as a “social vaccine”
- ◆ Fear focuses attention on the particular rather than the general.
- ◆ The politicisation of fear
- ◆ Role of media.
- ◆ Official actions may heighten public fears.
- ◆ Social conflicts -search for scape-goats
- ◆ Behaviour reverts after crisis

“The brilliancy of modern discoveries blinds incautious eyes to old truths and often endangers sound practice”.

Ashburton-Thompson, 1899

Broadcast live from the annual conference of the New Zealand National Division of Infection Control Nurses



Infection Prevention at Our Place
Towards a safe environment



www.nzno.org.nz/Site/Sections/Sections/InfectionControl