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Stephen Hampton, Kathryn M Weston, Louella R McCarthy,
Tobias Mackinnon

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Contacts

Communicable Diseases Intelligence is produced by:
Health Protection Policy Branch
Office of Health Protection
Australian Government
Department of Health
GPO Box 9848, (MDP 6)
CANBERRA ACT 2601

Email:

cdi.editor@health.gov.au

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Pandemics in New South Wales prisons: the more things change...

Stephen Hampton, Kathryn M Weston, Louella R McCarthy, Tobias Mackinnon

Abstract

Background: The current COVID-19 pandemic is not the first time New South Wales prisons have faced contagion. This paper examines the current responses in New South Wales prisons to the threat of COVID-19 to prisoner health, by contrasting contemporary activities with actions and policy developed during two historical epidemics: the influenza epidemic of 1860 and pandemic of 1919.

Method: Epidemiological information relating to cases of disease in NSW prisons during the 1860 and 1919 influenza epidemics was obtained from the Comptroller-General's reports for the specific outbreak years and for the preceding and succeeding five-year periods. Additional archival sources such as digitised newspaper reports and articles available through the National Library of Australia were analysed for closer detail. The management of these outbreaks was compared to current strategies to mitigate against risk from the COVID-19 pandemic in the NSW prison system.

Results: Interesting similarities were discovered in relation to the management of the historic influenza outbreaks in NSW prisons and in the management of the current COVID-19 pandemic. An outbreak of influenza in mid-1860 impacted seven penal institutions in Sydney and Parramatta. Infection rates at these institutions were between 3.1% and 100%; the mean rate was 41.8%. The public health measures employed at the time included allowing 'air circulation freely night and day', and treatments that were 'tonical and stimulatory'.

In 1919, the attack rate of influenza infection for Sydney was 358 per 1,000 population, whereas for the two large penitentiaries in Sydney, it was only 26 per 1,000 population. Similarly, the reported death rates were much reduced for prisoners compared to the general community.

The recorded measures in 1919 included: disinfecting of the gaol buildings; inoculation (experimental but of no value); the compulsory wearing of masks; the closure of the border between NSW and Victoria; fumigation and inhalation disinfection; daily examination with isolation for symptomatic staff; and quarantine of new arrivals. These are remarkably similar to current strategies.

Discussion: While the past 100 or more years have brought huge progress in scientific knowledge, public health approaches remain the mainstay of outbreak management in prisons; and, as in 1919, the opportunity for Australia to observe the rest of the world and plan for action has not been wasted. Prisons pose a potential risk for pandemic spread but they also present a unique opportunity for reducing disease risk by ironic virtue of the 'separate system' that was recognised even 100 years ago as characteristic of these institutions.

Keywords: Prison medicine; history; pandemic; infectious disease; public health; outbreak

Introduction

Concerns have been mounting about the potential for rapid spread of COVID-19 in prisons in Australia, reflecting the dire circumstances in some overseas jurisdictions.¹ At the time of writing, only one confirmed case of COVID-19 in a New South Wales (NSW) prison has occurred. While Justice Health and Forensic Mental Health Network (the Network) and Corrective Services NSW (CSNSW) move to implement plans established for such an eventuality, the situation gives us pause to remember that the current COVID-19 pandemic is not the first time NSW prisons have faced such contagion, and perhaps there are lessons to be learned from the past.

Methods

Epidemiological information relating to cases of disease in NSW prisons during the 1860 and 1919 influenza epidemics was obtained from historical government reports and archival sources available from the NSW State Archives and Records and National Library of Australia. The management of these outbreaks is com-

pared to current strategies to mitigate against risk from the COVID-19 pandemic in the NSW prison system. This research was undertaken with human research ethics approval from both the University of Wollongong Illawarra Shoalhaven Local Health District and Justice Health and Forensic Mental Health Network research ethics committees.

Results and Discussion

An epidemic in the nineteenth century

An outbreak of influenza in mid-1860 impacted seven penal institutions in Sydney and Parramatta. While the infection rate was diverse (3.1% to 100%), the mean rate was very high (41.8%; Table 1).²

The public health measures employed by prison health workers at the time included allowing 'air circulation freely night and day', and treatments that were 'tonical and stimulatory', including wholesome diets and 'mild antimonials', an antimony treatment administered largely for emetic purposes.²

Table 1: Influenza cases in institutions in Sydney and Parramatta, 1860

Institution	Total inmates	Total cases	Deaths	% Infections	% Deaths ^a
Darlinghurst Gaol	322	84	0	26.0	0
Invalid Depot (convicts) Parramatta	38	35	1	92.1	2.6
Sydney Infirmary	200	66	0	33.0	0
Lunatic Asylum Parramatta	459	14	0	3.1	0
H.M. Gaol, Parramatta	240	120	0	50.0	0
Tarban Creek	320	320	0	100.0	0
Benevolent Society Sydney	250	125	3	50.0	1.2
Total	1829	764	4	41.8	0.2

a Percentage of total population.

A pandemic in the twentieth century

The situation in NSW in 1919 was quite different. The influenza pandemic swept the world the previous year and the authorities saw it coming, allowing a public health approach to be implemented from the beginning. Dr Robert Lee-Brown, Visiting Surgeon at the State Penitentiary Long Bay, stated in the 1919 report to the Comptroller General:

*In 1918 the epidemic of pneumonic influenza, after raging practically over the whole world, made its appearance in Sydney, and our whole effort was centred in an endeavour to prevent its probable invasion into the Penitentiary.*³

This parallels the situation in NSW a century later. As an isolated continent, Australia is still in a position to benefit from observing disease trends overseas.

The potential for a pandemic in 1919 was apparent the previous year and the Comptroller General had initiated 'as a precautionary measure' the 'disinfecting of the gaol buildings' and had secured supplies of serum for inoculation. He espoused the virtues of inoculation and subjected himself to the procedure as a demonstration of his belief.⁴ Robert Lee-Brown's report further articulates steps taken at Long Bay:

*The system of inoculation was introduced and every prisoner where possible, had at least two injections... In addition, the greatest of precautions were taken to isolate all receptions for at least five days. Officers wore protective masks, and inhalation chambers were provided, and twice daily every officer passed through the fumigation chambers, and as far as we were able every precaution in our power was taken to prevent its introduction into the Institution.*³

Outside the prisons, inoculations were sought and administered in great numbers; the wearing of masks was mandated in some circumstances; and the border was closed between

NSW and Victoria.⁵ Protective masks and isolation remain important today, along with other public health measures implemented at the time. For instance, in Grafton Gaol, warders underwent daily examination and were isolated at home if symptomatic.

Unfortunately, and inevitably, it was admitted:

*But with all our care one case of delayed incubation showed marked signs of the disease. Infection followed, and quickly spread over the whole [Long Bay] gaol.*⁴

Indeed, eventually the contagion spread through much of the state including many prisons. Interestingly, the data (which can be derived from the information available) record a lesser impact of pandemic influenza on prisoners than on the general community (Table 2). The attack rate of influenza infection for Sydney was some 358 per 1,000 population whereas for the two large penitentiaries in Sydney, namely Long Bay Gaol and the State Reformatory for Women, it was only 26 per 1,000 population.⁴ Similarly, the reported death rates were much reduced for prisoners compared to the general community (Table 2). In a sombre portent to modern times, the two people who died at the State Reformatory for Women were Aboriginal women, another historical reminder of the adverse impact of colonisation, incarceration and disease on Aboriginal people.

The 1918–1919 pandemic had less impact on prisoners than did the 1860s epidemic. This likely reflected improved public health initiatives taken at the state and local institutional level. In Grafton Gaol, for instance, the spread of influenza was minimal, leading Dr Thomas Henry, the Visiting Medical Officer (VMO) there, to conclude that the gaol's ability to avoid epidemics could be attributed to having a 'separate system',⁸ i.e. a population effectively separated or socially isolated from the rest of society. The operation of prisons under the 'separate system', although developed as a punitive measure, could be exploited for health purposes. The governor of Maitland Gaol, William Urquhart,

Table 2: Influenza cases in Sydney, 1919^a

Institution ⁴	Total inmates	Total cases	Deaths	% Infections	% Deaths ^b
The State Penitentiary (Long Bay Gaol)	4,437	127	1	2.9	0.02
State Reformatory Gaol for Women	1,156	21	2	1.8	0.17
Total	5,593	148	3	2.6	0.05

Location	Total population ⁶	Total cases ⁷	Deaths ⁶	% Infections	% Deaths ^b
Sydney	810,700	290,000	3,484	35.8	0.4

a Explanatory note: the figures in Table 2 are based on available descriptive information in the cited references.

b Percentage of total population.

for example, ensured new arrivals were quarantined, effectively preventing introduction of cases of influenza into the gaol.⁹

There was certainly an awareness of the dire consequences of an infected inmate, as evidenced by the uproar when a prisoner was transferred from Long Bay Gaol to Grafton Gaol.¹⁰ Although the prisoner only developed symptoms during transit, he nevertheless originated from a facility beset with illness. It was called a ‘public scandal’ by authorities at Grafton Gaol, who immediately isolated the male prisoner in the women’s ward where he was nursed by his ‘two mates’ who had travelled from Long Bay Gaol with him.¹¹ At least one of the two mates subsequently developed the disease. The Mayor of Grafton landed responsibility squarely at the feet of the authorities, writing that the ‘authorities are absolutely responsible for dissemination of the disease in a clean area.’¹² The 1919 pandemic also affected prison staff; Mr. Herbert Mitchell, Officer-in-charge at Young Gaol, died from pneumonia related to influenza.¹³ The political and social anxiety apparent in the community today, in relation to wearing masks in public or remaining in quarantine as required, was also evident in 1919, even among the medical fraternity: Dr George Fox of Balmain was jailed in 1919 for his refusal to wear a mask. Furthermore, the presumption – against the evidence – of prisoners acting as a source of community infection also caused anxiety in Sydney: local residents from the Long Bay District Progress Association, concerned about the 30 cases of influenza in the

prison, protested against the mixing of prison warders from the penitentiary with the outside community.¹⁴

Once the pandemic had taken hold, additional measures were implemented. The value of the inoculations, although commonplace, was questioned by one of the VMOs, and indeed the mixture of bacterial components used has since been deemed to be of no value as a prevention strategy. Treatments again were primarily supportive. Some measures employed during the peak of the pandemic were additional staffing and release of prisoners on medical grounds. Cases were managed using the existing infirmary systems and VMOs, but surge staffing was drawn from recruitment of nurses and use of the prisoner population who, it was said, ‘proved, under the supervision of the recognised officers, quite satisfactory’. One of these helpers was particularly commended as he contracted influenza while serving the prisoners.¹⁵

A pandemic in the twenty-first century

The justice system is again faced with a viral pandemic, begging the question: how have things changed over the past century? In many ways, the situation has not changed; there was no effective SARS-CoV-2 vaccine available immediately, and treatment remains largely symptomatic, although of course supportive treatment has developed significantly. In 2020, public health measures remain the mainstay of outbreak management and, as in 1919, the

opportunity to observe the rest of the world and plan for action was not wasted. In all three outbreaks, public health measures were based on what was considered best knowledge of disease management at the time. One of the major public health tasks was, and now is, convincing the public to diligently adopt the full range of public health measures. However, translating these ideas into practice in the prison setting required (and again requires) adaptation and creativity. The evidence base for best management of SARS-CoV-2 is slowly being developed and specific evidence for the management of the disease in prison environments is an important aspect to consider within such a framework, such as how to effectively quarantine large flows of prisoners into this setting.

The current public health initiatives are remarkably similar in nature to 1860 and 1919, albeit more refined – at times. The Network and CSNSW have developed protocols and resources aligned with the best evidence base and mathematical modelling. Prisoners are swabbed for COVID-19 and quarantined on admission for 14 days, compared to five days in 1919. All symptomatic prisoners are isolated; family visits are restricted; and professional visits are limited, with video-conferencing used where possible. Careful contact tracing occurs and any contacts can be isolated. The impact on mental health from reduced family visits and concerns for family outside is recognised, and changes to protocols such as extended telephone contact with family have been implemented in some prisons. As in 1919, the risk of spread through prisoner transport is well known and infection control protocols are used when transport is necessary. Again, the border between NSW and Victoria was closed – for the first time since 1919.

The systems used in 1919 varied across the state and there was some variation in the penetrance of the disease. Efforts have been made in the twenty first century to limit variation in practice in accordance with modern governance models.

Determining best practice has been challenging in an environment where the global and local advice is evolving rapidly.

Prison staff are screened on arrival at work and required to self-isolate if unwell, as occurred a century ago. The screening process is now supported by thermal scanning and by protocols devised in accordance with national and state advice. The 1919 decontamination approaches of fumigation and inhalation disinfection have been surpassed by the current availability of hand sanitiser used on entry and all occasions of service; and strategically placed in the prison complex for use by prisoners as well. (It is necessary to use non-alcohol-based hand sanitiser as a safety measure in clinic areas.) In 1919, the prison staff wore masks; the evolution of Personal Protective Equipment and strict protocols for its use has greatly reduced transmission risks a century later. Recently, masks have been mandated for staff in routine contact with prisoners at less than 1.5 m distance. Environmental cleaning remains paramount, but agents and protocols are much improved.

Similar to 1919, staffing surge plans have been developed for prison medical services. NSW has also established isolation hubs in key locations and has built a COVID-19 field hospital inside one gaol which can be used for low-level care in the event of a serious escalation in case numbers. Any patients who deteriorate would be sent to local hospitals. Release of prisoners has already been included within pandemic planning for prisons and appropriate NSW legislation has been passed specifically for COVID-19.¹⁶ As in 1919,¹⁷ solicitors have raised the issue of COVID-19 risk in prisons to request release of a client, despite evidence currently suggesting there may be more risk in the community. A recent case relating to this issue was presented to the Victorian Supreme Court.¹⁸

Messaging is still important for prisoner health care. In 1919, direct communication by the Comptroller General of Prisons was the norm. In contrast, 2020 has seen targeted communications to families and support persons of

prisoners, assisted by resources such as posters and brochures in plain English and other languages. Information for staff is available online and education and training programs have been developed and implemented.

The 'separate system' concept is worth discussing further. Prisoners housed in somewhat crowded conditions are at risk of infection through the associated accelerated spread of disease, as has been seen in the United States of America.¹ This has led to discussion of the merits of decarceration as a way of improving spatial distancing.¹⁹ However, the prison system also affords the option of stricter controls which, if used effectively, have the potential to provide benefit. The historical data would not support a rigorous analysis of the impact of such strategies; however, in NSW, currently there has been only one COVID-19 case for about 12,800 people in prison at any one time (0.008%) compared to 4,614 total NSW cases as at 4 December 2020, in a population of some 7,544,000 people (0.06%). So, all things considered, in NSW, prisons have been a relatively safe place.

Conclusion

While the past 100 or more years has brought huge progress in scientific knowledge and significant change in responding to pandemics in prisons, the basic tenet of an effective public health approach remains the mainstay. It is important to realise, however, that prisoners are not necessarily representative of the general population, and the health care needs of vulnerable inmates who are elderly, Aboriginal, or suffering from chronic disease or mental illness need to be managed with a dedicated and population-specific approach. Prisons clearly pose a potential risk for pandemic spread, but they also present a unique opportunity for reducing disease risk by ironic virtue of the 'separate system' that was recognised even 100 years ago as characteristic of these institutions.

Ethics approval

The Caring for the Incarcerated research collaboration has been approved by the Human Research Ethics Committees of Justice Health and Forensic Mental Health Network; and University of Wollongong and Illawarra Shoalhaven Local Health District.

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Author details

Stephen Hampton¹

Kathryn M Weston²

Louella R McCarthy³

Tobias Mackinnon⁴

1. Executive Medical Director, Justice Health and Forensic Mental Health Network PO Box 150, Matraville New South Wales, 2036, Australia
2. Associate Professor Public Health, School of Medicine, University of Wollongong, Wollongong, 2522, New South Wales, Australia
3. Associate Professor Community Engagement, School of Medicine, University of Wollongong, Wollongong, 2522, New South Wales, Australia
4. Co-Director Forensic Mental Health, Justice Health and Forensic Mental Health Network PO Box 150, Matraville New South Wales, 2036, Australia

Corresponding author

Kathryn M Weston, School of Medicine, University of Wollongong, Wollongong, 2522, New South Wales, Australia.

Email: kathw@uow.edu.au

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