

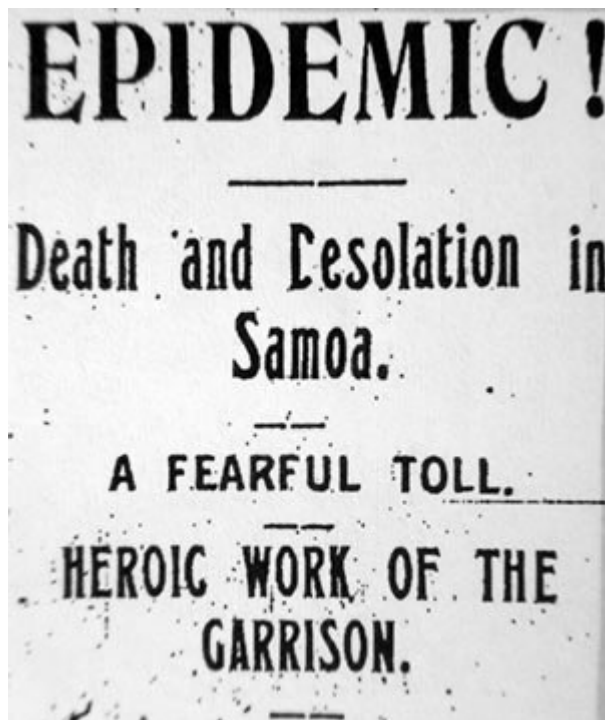
A 100 years ago today a death ship from NZ arrived in Samoa: A reminder of NZ's responsibilities to its South Pacific neighbours

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Today is the 100th anniversary of the arrival of the *SS Talune* in Western Samoa. This single ship spread the influenza pandemic from NZ to Western Samoa, Tonga, and Fiji. Thanks to the Rt Hon Helen Clark, there has been an official apology to Samoa for NZ's negligent role in this disaster. In this blog we reflect on this event and consider NZ's current responsibilities in helping its Pacific neighbours with infectious disease surveillance and pandemic control.

A recent review of the 1918 influenza pandemic in the Pacific region [1], reported that: “In November 1918, the tramp steamer *SS Talune*, out of the port of Auckland, was responsible for another maritime spread of influenza. During a single voyage, the ship inadvertently introduced pandemic influenza to Fiji, Tonga and Western Samoa; the resulting epidemics on the affected islands were devastating.”



More specifically, the *Talune* arrived in Apia, Western Samoa (modern day Samoa), on 7 November 1918 (100 years ago today of this blog being published). The NZ colonial authorities in Apia failed to appropriately consider the risks of having sick people on board and the *Talune* was given a clean “bill of health”.

The results of the subsequent pandemic spread were truly disastrous with around 8500 people in Western Samoa dying, 22% of the population according to the “Report of the Samoan Epidemic Commission” [2]. The high proportions of deaths among young adults and amongst leaders would have meant a very long-term impact on the country’s development. This disaster was in very stark contrast to the maritime quarantine applied to American Samoa - which successfully kept out the pandemic and had no deaths from it (see Figure below). Indeed, to make matters worse, the NZ Administrator of Samoa, Colonel Robert Logan, “did not accept from the Governor of American Samoa an offer of assistance that may have reduced the heavy death toll” [3].

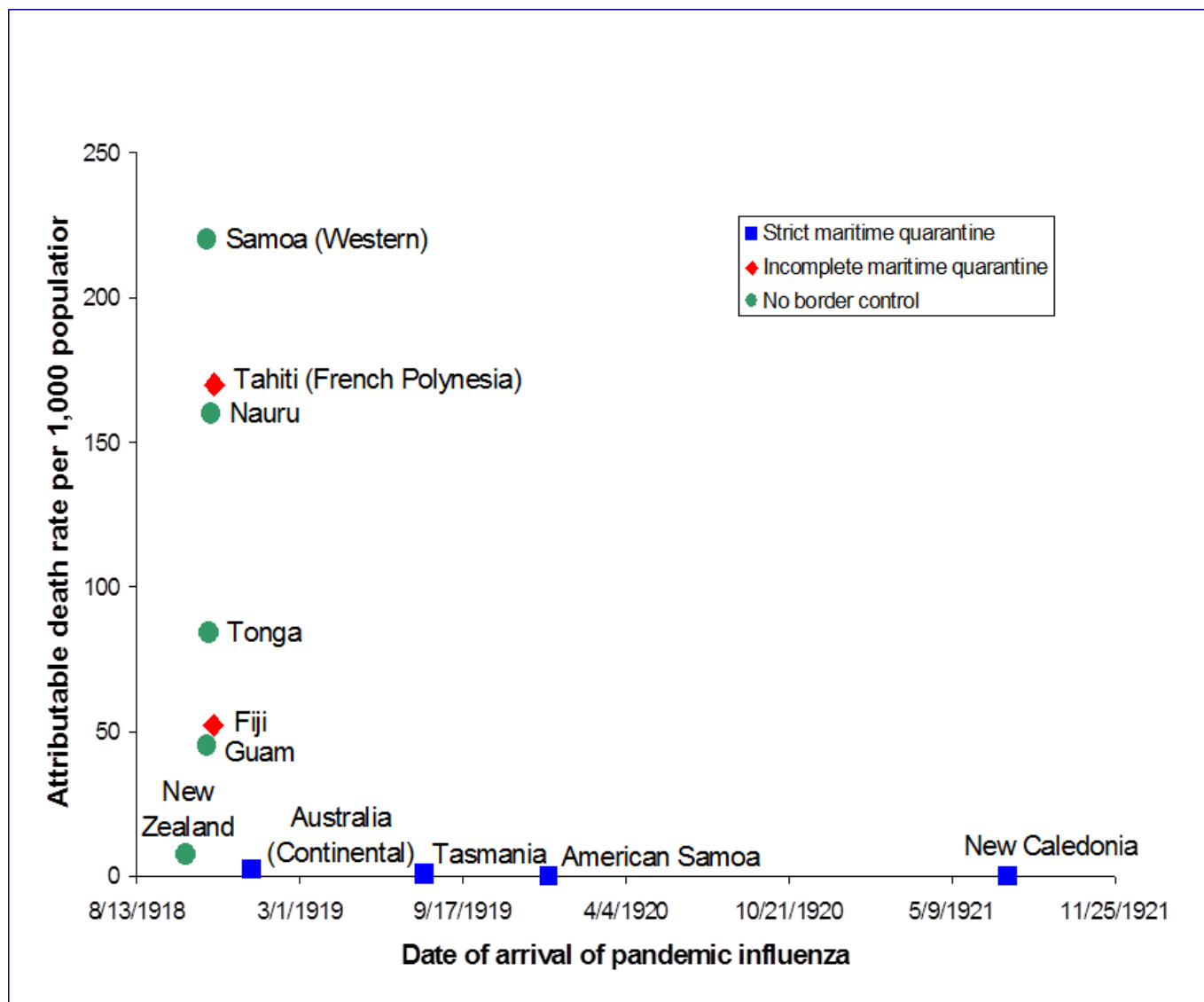
It took over eight decades before NZ apologised, but the Prime Minister in 2002, the Rt Hon Helen Clark, gave an address at a State Luncheon in Samoa, which included the following remarks [4]:

“Those events relate to the inept and incompetent early administration of Samoa by New Zealand.”

“In particular we acknowledge with regret the decision taken by the New Zealand authorities in 1918 to allow the ship *Talune*, carrying passengers with influenza, to dock in Apia. As the flu spread, some twenty two per cent of the Samoan population died. It is judged to be one of the worst epidemics recorded in the world, and was preventable.”

“On behalf of the New Zealand Government, I wish to offer today a formal apology to the people of Samoa for the injustices arising from New Zealand’s administration of Samoa in its earlier years, and to express sorrow and regret for those injustices.”

Figure: Impact of maritime quarantine on pandemic-related death rates in 1918 (from McLeod et al [5])



As if Samoa wasn’t enough: Fiji and Tonga also

The *Talune* also spread the pandemic to Fiji and Tonga as detailed in a recent University of Otago PhD thesis [6].

“Fiji had warning of the approach of influenza, yet the colonial medical staff discounted the risk and faced strong economic pressure to avoid quarantine measures. Fiji also had the largest and most ethnically diverse population, thus complicating education and outreach efforts, as well as strong recent memory of a devastating measles epidemic that destroyed indigenous confidence in the colonial medical system. Roughly five percent of the population of Fiji died.”

“Tonga experienced a collapse of the political system in a state where tradition still played a large role. In the absence of the traditional political elite the populace were left to their own devices, and suffered accordingly. Somewhere between four and eight

percent of Tongans were killed.”

Is there still a risk of future pandemics?

There remains an important ongoing risk of future influenza pandemics. Indeed, despite some improved control of “wet markets” [7], there is some evidence of increased emergence of new avian influenza strains in recent years [8]. There is also the risk of pandemics from other novel natural diseases (as per SARS) as well as the risk of agents associated with bioterrorism exists, with some potential for spread to NZ [9]. Advances in synthetic biology, such as new gene editing tools (notably clustered regularly interspaced short palindromic repeats / CRISPR), raise concerns about the potential for production of novel pathogens which could be released accidentally or deliberately as bioterrorist weapons [10].

What should the NZ Government be doing to advance regional pandemic control now?

We think that to more fully address the historical harms, it would be desirable if the NZ Government extended official apologies to Fiji and Tonga – given how the *Talune* also spread the pandemic to these countries.

It would also help if the NZ Government provided an ideal regional role model by having a state-of-the-art pandemic plan. The current NZ pandemic plan does have many high quality aspects. For example, it includes reference to Ministry of Health guidelines that include the option of exit measures, such as screening, for passengers departing on ships and aircraft from NZ to specific countries. These guidelines note “The most likely cases for this will be requests from small Pacific nations, especially those where most of the air traffic is via New Zealand.” [11]

But one area where the NZ pandemic plan needs particular development is in providing mechanisms for rapid border closure for severe pandemics (see these two studies done for NZ that consider the costs and benefits of border closure: [12] [13]). There is also probably the need for new emergency laws in NZ to facilitate rapid border closure when needed. Such laws should ensure the Prime Minister and Cabinet are protected from legal action and that key industries such as tourism can potentially be compensated financially to speed their post-disaster recovery (or that these industries be required to have adequate insurance cover).

Nevertheless, additional support by NZ to Pacific nations could be in terms of:

1. Offering to help **upgrade pandemic plans** and running training exercises for operationalising them in Pacific nations. Border closure might be a particularly worthwhile option in a severe pandemic for such nations. It could be complete closure, or for small islands it could be combined with quarantine [14]. Major travel restrictions, albeit still allowing for some travellers, could also potentially work for some Pacific nations with small travel volumes [15].
2. Offering to **strengthen regional infectious disease control and surveillance systems** covering the Pacific (potentially with more liaison with the Pacific Community and the World Health Organization). The recent Australian investment in the centre for Health Security (AU\$ 300 million) is a worthy example that might be reasonably matched to some extent by NZ. These countries could specifically offer more support to Pacific nations to allow them to meet their obligations under the

International Health Regulations 2005.

3. Targeting **development assistance to reduce risk factors** for death during pandemics eg, particularly by reducing poverty and strategies to reduce household crowding in Pacific nations (eg, support for family planning and improved housing). Similarly, for supporting ways to prevent chronic diseases which are also risk factors for death in pandemics (eg, via supporting tobacco control and improvements to the food supply).

In summary, the 100th anniversary of the 1918 influenza pandemic is a valuable reminder about the persisting threat of pandemics. While it is helpful that the NZ Government has officially apologised for some of its mistakes in the South Pacific in 1918, it still has scope to upgrade its regional role in supporting prevention of future pandemics in this region, along with wider improvements to public health and health services.

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