



Hong Kong

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How Hong Kong's vaccination missteps led to the world's highest covid-19 death rate

Omicron has taken Hong Kong from having one of the lowest covid-19 death rates in the world to having the highest daily death rate per capita. A key reason for this is the island's handling of vaccination, writes **Rhoda Kwan**

Rhoda Kwan *freelance journalist*

Hong Kong's strict guidelines on social distancing and its restrictions on travel ensured months of low infection rates for covid-19, until the omicron variant hit the city in February 2022. Before that, Hong Kong had reported 212 deaths related to covid-19; around 9000 people have since died from the virus in the city's fifth wave of infection.

As of late April, more than 70% of deaths were in patients aged 80 or older, 73% of whom were unvaccinated. The hospital system has been overwhelmed, with patients occupying hospital beds in parking lots, bodies kept in hospital corridors and in patient rooms, and morgues overflowing.

This is despite vaccines being readily available in the city since February 2021. Hong Kong had procured enough doses of the Pfizer and Sinovac vaccines for its population of seven million, and both vaccines were made available at community vaccination centres and private clinics across the city within weeks of the rollout. Older citizens were given priority access to vaccination.

The government encouraged the public to get vaccinated, and the private sector offered vaccination incentives. Hundreds of companies launched raffles and offered perks worth millions of dollars for fully vaccinated consumers—one raffle prize was an apartment valued at HK\$10.8m (£1m; US\$1.25m).

But the push wasn't enough. Before cases surged in late February 2022, only 43% of residents over the age of 80 had received their first vaccination dose.

The vaccine hesitancy widespread among Hong Kong's older population, experts say, was a result of politicising vaccination, subsequent mixed messaging from both government and doctors, and local media's portrayal of deaths that followed vaccination. Together, these caused confusion and fuelled mistrust.

Politicisation of vaccination

Hongkongers had a choice of two vaccines—one manufactured by US-German Pfizer and the other by China's Sinovac. But government guidance on which to have was not in line with the scientific data available at the time, experts in the city say.

In February 2021, results from third phase clinical trials of Sinovac had not been released, while Pfizer's third phase results had been published in a peer reviewed journal before being examined by the government's medical advisory board. Pfizer's mRNA based vaccine claimed a 95% efficacy rate, while

Sinovac—a more traditional vaccine based on inactivated virus—had an efficacy of 63-91% depending on which data were considered.¹

Despite the stronger clinical evidence for the Pfizer vaccine, the Hong Kong government's message was that both were equally effective. It even invoked emergency powers to approve Sinovac for use before third phase clinical data were available. This message was reinforced when the city's top officials, including the secretary for food and health, Sophia Chan, publicly chose to receive the Chinese vaccine.

Karen Grepin, an associate professor at the University of Hong Kong's School of Public Health, says, "the [government's advisory panel on covid-19 vaccines] would say that [Pfizer] was more clinically effective, and the entire political elite would go and get Sinovac. The way in which vaccines were made available to people was very politicised ... This created a bit of confusion amongst many about who do you trust about issues related to safety and effectiveness."

A brief, temporary suspension of vaccination with Pfizer occurred one month after the rollout because of faulty packaging, and further added to the confusion and distrust.

Media representation

At the beginning of the vaccination rollout, local media outlets ran splashy headlines about deaths following vaccination, even as no evidence of causation existed.

"Every time somebody died in Hong Kong within 14 days of their vaccination, it was being reported what their vaccination status was, even though there may not be a linkage between these things," says Grepin. "It created a lot of concern about the safety and effectiveness of the vaccine, really early on."

The public read the headlines and drew their conclusions, says Siddharth Sridhar, a clinical virologist at the University of Hong Kong. "That contributed to the kind of thinking that vaccines were basically harmful."

The government's response to public anxiety about vaccines did little to assuage concerns. According to Ben Cowling, chair professor of epidemiology at the University of Hong Kong's School of Public Health, "The explanation was that this person had heart disease, so it was no surprise that they had a heart attack after vaccination. That way of phrasing it wasn't exactly saying the vaccine didn't cause it, it

was saying that the event might have occurred anyway even without vaccination.”

“Unfortunately... [the public was] kind of balancing these different streams of information, one telling them that vaccines were beneficial, one telling them that vaccines were harmful, and nothing was done to counteract those kinds of harmful messaging,” Sridhar said.

Pre-screening misunderstanding

The government advised individuals with chronic illnesses who had concerns about vaccine side effects to consult their medical practitioner before getting the jab.

But the emphasis on medical consultation gave the impression that the vaccines were dangerous for older people and those with chronic illnesses, and that an individual had to be healthy to get vaccinated. “You’ve basically created this idea that, if there’s something wrong with you, then you should not get vaccinated—otherwise why would you go to see your doctor?” says Grepin.

Medical professionals welcomed discussion about vaccination with patients because they were keen to provide paid-for “pre-covid vaccination health screening” services at private clinics, she said. This cemented the mistaken belief that only healthy people should receive the vaccine.

“That put healthcare providers in a very strange situation,” Sridhar says, “On the one hand the messaging is that covid vaccination is safe and should be given to all, but on the other hand, you have this proliferation of services for pre-covid [vaccination] healthcare screening.”

Many risk averse doctors recommended against vaccination, even when risks were extremely low. “A lot of healthcare providers did err on the side of what they thought was caution, only to put patients in a very vulnerable position when covid finally came,” Sridhar says.

Many older patients trusted the advice of their medical practitioners over government messaging.

Even the president of the Hong Kong Medical Association, Choi Kin, cautioned against enforcing third doses of the vaccines without access to what he considered sufficient scientific data.

“What is the percentage of asymptomatic infection here by omicron? What percentage develop what? What is the percentage with ICU care? What is the number that needed intubation or ICU care? Without these figures, can doctors blindly ask their patients to risk the side effects of vaccination?” Kin wrote in the February 2022 edition of *HKMA News*.

Zero covid

A study by the University of Hong Kong published in March 2022 found that vaccine hesitancy was highest among people aged 65 and older.

A separate study conducted by the university in June 2021 found social factors, including whether one’s family members were vaccinated, and the level of trust in the government, played a significant role in individuals’ attitudes towards vaccines. The study found that only around 41% of participants were willing to get vaccinated, and the rest were either hesitant or resistant.

Meanwhile, the Hong Kong government has insisted on “dynamic zero”—a strict quarantine for anyone testing positive for covid-19—in line with Beijing’s “zero covid” policy towards infections.² This means people have no urgency to get vaccinated against the virus.

While the government says its goal is to keep covid out, why risk the side effects of vaccinations?

“If there’s no covid, any risk of vaccination would seem unreasonable, but of course you had to suspend belief to believe we would never have covid,” Grepin says. “I think people really do fear the immediate risk of being vaccinated more than the potential risk of catching covid and potentially getting ill.”

The public continues to appear lacking in urgency to get vaccinated, even as the city’s morgues are overflowing with bodies. The vaccination rate among people aged 80 and older was around 61% in late April. At the time of writing, the government continues to insist on a strict zero tolerance policy towards covid infections.

“Now, especially because the wave is receding and the government has categorically stated that dynamic zero is their preferred policy, people are looking ahead and they’re saying ‘OK, if we’re going back to dynamic zero, then there’s no urgency in getting vaccinated,’” Sridhar says.

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- 1 Baraniuk C. What do we know about China’s covid-19 vaccines? *BMJ* 2021;373:n912.
- 2 Silver A. Covid-19: Why China is sticking to “zero tolerance” public health measures. *BMJ* 2021;375:n2756.