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Hong Kong's fifth COVID-19 wave—the worst yet

Hong Kong's zero-COVID strategy and uneven vaccination drive has left the Chinese special administrative region's population vulnerable to the omicron variant. Talha Burki reports.



Throughout the whole of 2021, Hong Kong reported fewer than 4000 cases of COVID-19. The city of 7.5 million people, which is officially designated a special administrative region of China, has fallen in line with the zero-COVID policy pursued by the central government in Beijing. In response to the pandemic, Hong Kong has imposed compulsory quarantine periods on new arrivals from abroad and suspended flights from high-risk countries. Mandatory confinement in isolation facilities awaits anyone who tests positive for SARS-CoV-2 and does not require hospitalisation. Restaurants, bars, and gyms have had their opening hours curtailed to varying degrees. Entire neighbourhoods have been sealed off in so-called ambush lockdowns and all the residents within tested for SARS-CoV-2.

Hong Kong's economy has suffered. As elsewhere, people of limited resources have been disproportionately affected by both COVID-19 and the actions taken to control its spread. "The nature of certain jobs does not allow for working from home; those jobs are often held by people of lower socioeconomic positions and may not include paid sick leave", explained Roger Chung, co-director of the Chinese University of Hong Kong Centre for Bioethics. "Socioeconomic impacts as a result of the containment measures against COVID-19 will have consequences that risk widening health inequalities in Hong Kong". The measures were sturdy enough to ensure that the delta variant did not take hold last year. But the omicron variant proved a different matter entirely.

Once it had entered Hong Kong, it was always going to be difficult to control the spread of a variant as

infectious as omicron. Population density in the city is high. A lot of people live in huge apartment blocks, with connected ventilation and drainage systems. At least 200 000 individuals are thought to be housed in subdivided tenements, with tiny amounts of personal space.

Cases of COVID-19 started to surge in late January, 2022. The first 5 days of March saw 234 829 people in Hong Kong test positive for SARS-CoV-2, more than half the total number of cases registered in the city since the pandemic began. "The situation probably got out of hand due to increased social mixing around the lunar new year, in addition to the characteristics of the Omicron variant—what worked before does not seem to work as well with Omicron", said Chung.

The ongoing surge represents Hong Kong's fifth wave of COVID-19. Domestic migrant workers have had a particularly rough time. There are an estimated 330 000 such individuals in Hong Kong, mostly women from Indonesia and the Philippines. Under local law, they are required to live with the family that employs them. There have been reports of domestic workers being fired or instructed to leave after testing positive for SARS-CoV-2. Some have had no other option but to sleep rough.

On March 5, the Hong Kong Government issued a press release reminding employers of their legal obligations to domestic workers. "For those foreign domestic helpers under employment who test positive to the COVID-19 or are regarded as close contacts, they will receive support like any other citizens of Hong Kong", stated the government. "Foreign domestic helpers working in Hong Kong are a core part of our community."

The surge has overwhelmed Hong Kong's isolation facilities. Several hundred care homes for the elderly and people with disabilities are experiencing outbreaks. Reports have emerged of overflowing mortuaries and bodies piling up in hospitals. Rumours of a pending lockdown has prompted panic buying. Stories abound of citizens who have tested positive for SARS-CoV-2 sleeping outside or in stairwells, so as to avoid infecting family members.

The situation has been dramatically worsened by uneven coverage with the COVID-19 vaccines. At the time of writing, 78% of people aged 12 years and older in Hong Kong had received both doses of the vaccine. But less than a third of those over the age of 80 years had been fully vaccinated. When omicron hit Hong Kong, the proportion of fully vaccinated residents of care homes was under 20%. "I am very disappointed that despite having early, privileged, and sustained access to the COVID-19 vaccines, we still have this large vulnerable group that remains sub-optimally covered", commented Gabriel Leung, dean of medicine at the University of Hong Kong. The fifth wave of COVID-19 has already killed more than 2000 people in Hong Kong. An analysis of the first 1153 deaths revealed that 92% of the deceased had not received both doses of the COVID-19 vaccine.

Hong Kong entered the pandemic in the midst of a great deal of social unrest. Sections of society have lost faith with the government, which may have influenced their willingness to take the vaccine. Chi Chiu Leung, former chairman of the Advisory Committee on Communicable Diseases of the Hong Kong Medical Association, reckons the low uptake is



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partly attributable to a failure to assure people of the vaccines' safety, after a handful of suspected adverse events were reported in the early days of the rollout.

Hong Kong may also be a victim of its own success, with the lack of widespread transmission of SARS-CoV-2 over the past 2 years prompting an attitude of complacency. "People started to think 'if there is no risk of catching this virus, why should I expose myself to the potential side effects'", Gabriel Leung told *The Lancet Infectious Diseases*. "The idea got around that Omicron was as mild as influenza; people were not taking the precautions that they should have been", added Chi Chiu Leung.

Ongoing work by Gabriel Leung aims to calculate the case fatality rate associated with omicron in Hong Kong. "When you look at the numerator data, it is definitely very concerning, especially given that we

have very low vaccine coverage in the most vulnerable age groups, including those who are institutionalised", he said. The relative mildness of previous waves of disease means that there is not much infection-generated immunity to mitigate the effects of omicron.

The Hong Kong Government has responded to the fifth wave by tightening control measures and planning a mass testing programme for March. Chi Chiu Leung questions the timing. "We have substantial community transmission and nowhere to isolate people", he said. "At this stage of the pandemic, mass testing will not contribute to controlling the outbreak. Priority should be given to triage the massive number of COVID-19 patients according to their treatment and isolation needs, and allow recovered patients from the highly vaccinated working population to resume their essential duties quickly."

Gabriel Leung stressed the importance of rolling out COVID-19 vaccines and antivirals to elderly and vulnerable populations, with a strong focus on care homes. "We need to very quickly procure and deliver a massive amount of the novel antivirals against COVID-19", he said. "The other crucial thing will be to slow the flow of patients into the accident and emergency department and acute care beds. The system is under tremendous strain; it is almost at the point of imploding under its own weight".

Chi Chiu Leung reckons Hong Kong's fifth wave will peak in early March. Once it has regained control of the outbreak, Hong Kong will have to decide between two very different approaches to the pandemic. Does it want to resume the zero-COVID strategy followed by China, or adopt the aim of living with the disease, in line with most of the world?

Talha Burki



Infectious disease surveillance update

Yellow fever in Kenya

An outbreak of yellow fever was declared in Isiolo County, Kenya, on March 5. The first case was identified at the subcounty level on Jan 12. As of March 5, 15 suspected cases have been identified across Merti and Garbatulla subcounties of Isiolo County. Three of the cases have been confirmed out of six samples sent to the Kenya Medical Research Institute in Nairobi for serology and PCR. The one line-listed case had symptoms consistent with yellow fever, including fever, jaundice, muscle pain, and joint pain. The cases were aged between 11 years and 65 years, with the majority of cases being young men. Three of the 15 cases died from their illness. The country is now on alert, as the last reported cases of indigenous yellow fever were reported during 1992 and 1993 in south Kerio Valley—the first recorded outbreak of yellow fever in

Kenya. Vaccination campaigns are being planned in Isiolo County and other high-risk counties including Wajir, Garissa, Marsabit, and Samburu.

Leptospirosis in New Caledonia

Between January and March 2, 63 cases of leptospirosis were reported in New Caledonia, France, with 55 of the cases requiring hospitalisation. 20 of those hospitalised were admitted to the intensive care unit. Leptospirosis is a bacterial disease caused by bacteria of the genus *Leptospira*, which is carried by animals in their kidneys and spreads through their urine or contaminated water. Leptospirosis occurs normally in the rainy season in New Caledonia. In 2021, 229 cases were reported, including four deaths.

Wild poliovirus in Malawi

On Jan 31, Malawi health officials reported a case of wild poliovirus

type 1 (WPV1). The case was a child from Lilongwe district in the central region who developed symptoms of acute flaccid paralysis on Nov 19, 2021. Stool samples were collected by Nov 27, received at the National Institute of Communicable Diseases in South Africa on Jan 14, and sent onwards to the US Centers for Disease Control and Prevention for genotyping. Results from Feb 2 and Feb 12 confirmed the case as WPV1. Analysis shows that the WPV1 from Malawi is genetically linked to the WPV1 in Pakistan detected in 2020, in Sindh province. The last clinically confirmed case of WPV in Malawi was reported in 1992. Global Polio Eradication Initiative teams have been sent to Malawi to support the public health response, including increased surveillance and risk assessment.

Ruth Zwizwai

For more on **yellow fever in Kenya** see <https://www.theeastafrican.co.ke/tea/science-health/kenya-declares-yellow-fever-outbreak-3738068>

For more on **leptospirosis in New Caledonia** see <https://promedmail.org/promed-post/?id=8701824>

For more on **wild poliovirus in Malawi** see [https://www.who.int/emergencies/disease-outbreak-news/item/wild-poliovirus-type-1-\(WPV1\)-malawi](https://www.who.int/emergencies/disease-outbreak-news/item/wild-poliovirus-type-1-(WPV1)-malawi)