

Vax and the city

Dense urban living may have incubated Covid-19, but cities as hotbeds of innovation have come into their own with vaccines to counter it

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For *The Straits Times*

While the Covid-19 pandemic has spread across the world, cities have found themselves more severely affected.

In India, a second wave of Covid-19 infections has devastated major cities such as Delhi, Mumbai, Lucknow and Pune, with smaller cities increasingly affected as well. In the United Kingdom, a vast majority of cases involving the highly infectious B1617 variant was reported in the capital, London.

Even before the emergence of the B1617 variant, the impact of Covid-19 was most severe in major cities. For instance, New York City became the Covid-19 epicentre of the United States, with more than 200,000 confirmed cases reported during March-May last year.

The origins of the Covid-19 virus itself have been most commonly traced to Wuhan, a bustling second-tier Chinese city.

What makes cities so vulnerable to an infectious disease outbreak? And is there a future for cities in the post-Covid world?

TWO VULNERABLE AREAS

Compared to their rural counterparts, cities possess two distinct areas of vulnerability: connectivity and density. These aspects, ironically, have also been sources of strength for many cities prior to the Covid-19 outbreak.

First, connectivity. In almost all cities across the world, Covid-19 first entered the resident population through global travel.

This was the case for Singapore, not only during the Covid-19 pandemic, but during the 2003 Sars crisis as well. More recently, the B1617 variant entered Singapore through air travel and ignited an infection cluster at the airport.

Cities have long thrived on the economic and financial flows that came from their deep connectivity to the rest of the world. Yet as Covid-19 has shown, viruses can just as easily pass through the often-porous borders of cities.

Once it enters a city, a virus can spread rapidly across its densely-populated urban confines.

This leads to the second major vulnerability of cities: urban density.

This has served as a catalyst for economic collaboration and innovation. Urban thinkers such as Professor Saskia Sassen have long highlighted the ways in which the

“clustering” of firms and economic activities allows cities to flourish as hotbeds of innovation and financial intermediation.

This is certainly the case for major global financial centres such as Singapore and Hong Kong. Yet the clustering of financial activity and talent can often give rise to infection risks. For instance, a major Covid-19 cluster emerged in a gym close to Hong Kong’s financial centre.

Faced with a global pandemic, major cities across the world are starting to see their natural advantages of high urban density and global openness transform into sources of deep risk and vulnerability.

To address this, city planners and policymakers have relied on two key tools: social distancing and border controls.

For instance, the recent surge in infections has prompted Singapore to impose stricter restrictions on social interactions through its phase two (Heightened Alert) measures. Covid-19 restrictions have similarly been raised in Taipei.

Both Singapore and Taiwan have imposed strict entry restrictions for in-bound travellers. Such restrictions have been the status quo for many cities and countries. As Prime Minister Lee Hsien Loong recently noted in an interview, the world is still a long way off from allowing greater freedom to travel.

WHAT LIES AHEAD?

Can cities exist in their current form in a post-Covid world? In other words, are urban density and global connectivity still feasible propositions?

While it is too early for answers, causes for hope are emerging.

New York has recently begun lifting restrictions on businesses and reopening its economy. This is due to declining rates of Covid-related deaths and hospitalisations in the city, driven by its high rate of vaccination. This is also the case in Tel Aviv, which has reopened its economy on the back of a national-level vaccination drive.

The success of these vaccination drives reflects a greater propensity for urban dwellers to receive vaccinations, as well as higher capacity among city governments for administering vaccines.

Indeed, there are emerging reports of a “rural-urban divide” in vaccination rates across the US, with rural areas reporting lower levels of vaccination among seniors than urban counterparts.

Behind the vaccination roll-outs



People walking down Fifth Avenue in New York last Saturday, compared to when the coronavirus emptied the city’s streets last year. Faced with a global pandemic, major cities across the world are starting to see their natural advantages of high urban density and global openness transform into sources of deep risk and vulnerability, and city planners and policymakers are turning to social distancing and border controls to address this. PHOTO: BLOOMBERG



People wearing face masks walking past tables with red and white tapes at the Albert Centre food centre on Monday. In almost all cities across the world, Covid-19 first entered the resident population via travel, as in the case of Singapore. More recently, the B1617 variant entered through travel and ignited an airport infection cluster. ST PHOTO: LIM YAOHUI

lies another success story, that of vaccine production.

Just a stone’s throw from the Massachusetts Institute of Technology and two subway stops from Harvard University sits the global headquarters of Moderna, producer of one of the major Covid-19 vaccines. Like many other global cities across the world, Boston is home to top scientists and researchers.

Meanwhile, the headquarters of Pfizer, another major Covid-19 producer, is New York City.

Earlier this month, BioNTech announced that it would establish its new regional headquarters in

Singapore and produce messenger RNA (mRNA)-based vaccines in the city-state. Both the Moderna and Pfizer Covid-19 vaccines are mRNA-based.

This is on the back of announcements in April that French pharmaceutical giant Sanofi Pasteur, as well, would be building a vaccine production centre in Singapore.

Like Boston and New York, Singapore has, over the years, built up a strong base of scientific research and expertise, driven by the presence of world-class universities and research centres.

It is important to note that the

grouping of talent and innovation in these three cities is a result of urban density and the formation of innovation clusters.

While cities will continue to manage their urban density and control inflows of people (and viruses), they will at the same time need to rely on their access to global talent and knowledge and their ability to cluster economic activity to thrive in a post-Covid, but no-less-globalised, world.

The Covid-19 pandemic has exposed severe vulnerabilities in cities across the world and forced policymakers to constantly juggle

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between conflicting objectives such as social distancing and urban density on the one hand, and global connectivity and border controls on the other.

Yet, as the examples of Singapore, Boston and New York show, cities can also serve as sources of medical, technological and policy solutions for the pandemic.

As the world continues to grapple with Covid-19 and cities embark on the start-stop process of reopening their economies, policymakers will need to seek out the “Goldilocks solution” of having just enough density and openness, while minimising the risk of another outbreak.

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