When the flu bug goes out of control

Being a densely populated city and transport hub, Singapore is highly vulnerable to new flu virus strains, but the authorities say they are ready for a pandemic.

Felicity Choo

The threat of another influenza pandemic is on the minds of experts here, who point out that Singapore’s high population density and extensive trade and travel links make it vulnerable to new influenza strains.

A pandemic is a global outbreak of a new disease.

The fear is encountering a new strain that humans have no immunity to.

Professor Michael H. Murray, director of the SingHealth Duke-NUS Global Health Institute, said in a recent interview:

“With a disease like dengue, you can go after the mosquito and you might be able to control (an outbreak). But as transmission is via the respiratory route, it’s very easy to spread it,” he said.

The last influenza pandemic in 2009 was caused by a new influenza A (H1N1) virus and was first detected in the United States between 33,750 and 77,480 people worldwide died from the virus during the first year it circulated, according to the US Centers for Disease Control and Prevention.

Singapore, like other countries, is preparing for another round of flu pandemics,” said Professor Paul Tambyah from the National University of Singapore Yong Loo Lin School of Medicine.

“Especially since we are a major trade and transport hub, it is quite likely for Singapore to be affected by the next flu pandemic.”

Dr Sudhakar Venkatraman, a consultant at Singapore General Hospital’s Department of Infection Diseases, agreed.

He said other aggravating factors include Singapore’s high population density and the fact that it experiences two flu seasons a year, compared to one with northern hemisphere countries.

With the peak seasons – around April to June and towards the end of the year – overlapping with the start of the winter season in the southern and northern hemispheres respectively.

Professor Gavin James Smith from Duke-NUS Medical School, however, has a more positive view of the situation.

“There have been only four influenza pandemics recorded in the past 100 years and there is also an effective surveillance network run by national governments and the World Health Organization (WHO) to detect the emergence of new influenza strains into the human population,” he said.

The Ministry of Health (MOH), in response to questions from The Straits Times, said MOH is mindful of the potential threat of pandemics and has developed a pandemic readiness and response plan for influenza and other acute respiratory diseases, to prevent unnecessary panic and ensure that the community is ready.

These measures include surveillance, border control, contact tracing and quarantine, and management of treatment centers.

MOH also engages WHO and takes part in global and regional initiatives to strengthen Singapore’s efforts to prepare for public health threats, including influenza pandemics.

On the global front, efforts are being made to produce a universal flu vaccine that can work against any strain of the virus, said Prof Murray.

Prof Smith, who is from Duke-NUS’ Emerging Infectious Diseases Programme, said that while vaccines are not always available, more antiviral medicines these days are effective against most influenza viruses and can be used in the event of a pandemic.

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Director, SingHealth Duke-NUS Global Health Institute