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ASIA EDITION

Singapore recommends strengthening genomic sequencing for infectious disease surveillance in 13 South and Southeast Asian countries

September 26, 2024 | News

Duke-NUS study finds outbreak detection under-resourced in Asia



A landmark study led by Duke-NUS Medical School in Singapore has revealed that despite the recent pandemic, outbreak detection efforts remain under-resourced in South and Southeast Asia, with only about half the countries reviewed having integrated pathogen genomic surveillance initiatives in their national plans.

Published in *Nature Microbiology*, the study also identifies key priorities to enhance the preparedness of the region against future pandemics.

The study, conducted over 12 months between 2022 and 2023, analyses responses on genomic sequencing capacity for pathogen detection from 13 out of 19 countries that make up South and Southeast Asia.

While all 13 countries have national capacity for genomic sequencing, only 7 of the 13 assessed countries have integrated pathogen genomic sequencing into their national strategic plans for infectious disease surveillance. Additionally, only 6 countries have established guidelines for using pathogen genomics for infectious disease surveillance. The absence of national guidelines for pathogen genomic surveillance complicates implementation and resource allocation.

The paper identified five specific challenges faced by the region in adopting genomics sequencing for infectious disease surveillance which includes Funding; Trained manpower; Cost; Supply chain; and Turnaround time.

In collaboration with the US Centres for Disease Control and Prevention (US CDC), Asia Pathogen Genomics Initiative (Asia PGI) is organising a joint workshop later this year on national planning and implementation of pathogen genomics for infectious disease surveillance.