

Viral and mosquito-borne pathogens are priority concerns for disease outbreaks: Abbott study

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Viral pathogens and mosquito-borne pathogens as likely to spark outbreaks as humans, animals and viruses overlap



US-based healthcare company Abbott has announced the findings of a new survey among leading infectious disease experts around the world on the state of pandemic preparedness and found that while most agree that preparation has improved since the COVID-19 pandemic, respondents say significant gaps remain in building surveillance programmes to identify emerging pathogens, public health funding and having adequate testing infrastructure capabilities.

The survey, commissioned by the Abbott Pandemic Defense Coalition, asked more than 100 experts in virology, epidemiology and infectious diseases around the world about their priorities for addressing the gaps in readiness for disease outbreaks, their views on how the changing environment is impacting infectious diseases, and their suggestions for building a resilient healthcare system capable of identifying and responding to emerging disease outbreaks around the world.

Respondents were evenly split on whether a new pathogen (50%) or changes in a known disease (50%) were a bigger threat for large-scale outbreaks. Nearly all (94%) believe viral pathogens are most likely to lead to widespread outbreaks, followed by bacteria, fungal and parasitic infections.

The survey also asked infectious disease experts their perspective on the impact changes in the climate could have on the

severity and frequency of infectious disease outbreaks, including extreme weather events and where insects and animals live. Experts identified mosquito-borne pathogens (61%) as representing the greatest threat to human health as the climate changes, compared to avian (21%), animal (14%) or tick-borne (4%) pathogens.

The survey results showed that infectious disease experts believe that robust tracking of changing insect ranges, animal habitats and their migrations, and extreme weather events are important to understand changing risk patterns for infectious diseases.

As part of the survey, respondents were asked to share their priorities for addressing the most urgent gaps in the world's current state of readiness. Surveillance programs to identify emerging pathogens, funding for public health infrastructure, testing infrastructure capabilities, increasing the numbers of epidemiologists and frontline workers, and diagnostic test development were cited as the top five areas for investment.

Informed by the findings from the survey, members of the Abbott Pandemic Defense Coalition recommend that funding for public health should be available to sustain the programmes and help train the next generation of virus hunters who help identify and respond to outbreaks as well as educate the public on infectious diseases.