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Covid-19: Annual flu-like booster approach may not be appropriate, says expert on infectious disease

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The world is no more prepared for the next pandemic than it was for the covid-19 pandemic, a leading expert on infectious diseases has warned.

Carlos del Rio, president of the Infectious Diseases Society of America (IDSA), said that irrespective of whether the World Health Organization decides to downgrade the status of covid-19 from a pandemic, the real focus of public health action should now be on building pandemic preparedness.

“My advice is, if we close the chapter on covid-19, [that] we don’t close the book on public health, and we really think about building pandemic preparedness as a true strategy going forward. If we don’t do that, we would have really missed a huge opportunity. We cannot be caught the same way we were with covid,” he told a joint press briefing between the IDSA and the European Society of Clinical Microbiology and Infectious Diseases on 24 January.

Since the pandemic began more than 6.71 million deaths from covid-19 have been reported worldwide, with 14.9 million excess deaths associated with the pandemic in 2020–21.

Yearly covid boosters

Addressing how covid-19 will be handled moving forward, del Rio highlighted the push towards annual boosters. This idea, which treats covid-19 as a seasonal illness like flu, has been discussed in many countries, including the UK and the US—where the Food and Drug Administration is preparing to set out its plan.¹

However, del Rio, who is executive associate dean of the Emory University School of Medicine in Atlanta, Georgia, said that he was unsure whether this was the right approach. “With flu, each year we develop a new vaccine based on the influenza strains in circulation that year,” he said. “You would love to see something similar from covid, but the reality is covid vaccines may be very different.”

He highlighted that, while the US had decided to use a bivalent booster, many European countries chose a monovalent booster. He explained, “We’re not seeing much of a difference. So, it may not be what you get boosted with—it may be that it’s important that you get boosted, period. Now, how frequently you can get boosted, I think we don’t have the answer yet.

“One thing we’ve learned from this virus is that it throws curveballs frequently. My plea is that we continue doing research, we follow the science, and we make decisions based on science and not what is most convenient to most of us.”

The FDA is set to meet a panel of vaccine experts on 26 January to debate whether an annual booster is the right approach. As it stands, uptake of the bivalent booster dose in the US has been much lower than for the primary doses rolled out earlier in the pandemic. As of 18 January only 15% of the US population and 39.6% of its over 65s had received the bivalent booster, said the US Centers for Disease Control and Prevention.²

“This leaves a significant amount of the population at significant risk of severe disease if they get infected,” said del Rio. “Given the variants in circulation, having only two doses of vaccine or even three doses of vaccine is not very protective against severe disease, and particularly for people over the age of 65.”

China’s vaccine approach

Commenting on the situation in China, where the government has dropped its previously strict covid measures after years of lockdowns,³ del Rio warned that the country’s refusal to use vaccines developed in other countries “is a problem.”

“Not surprisingly, there’s been a massive surge of cases [since the measures were dropped]. They have a population with 1.4 billion people who are either inadequately vaccinated or have little or no natural immunity,” he said. “The Chinese National Health Commission is obviously ramping up vaccination, going house to house, building stocks of ventilators and essential drug supplies in order to get people protected. But they’re still reluctant to use vaccines not produced in China, and that, I think, is a problem.”

Last month WHO urged China to step up its vaccination programme, with a focus on vulnerable groups.⁴ Despite China’s high overall vaccination rate using its two vaccines, CoronaVac and Sinopharm, there have been questions over how effective these vaccines are.⁵ Additionally, an estimated 30% of people aged over 60 remain unvaccinated.

Del Rio went on to discuss whether new variants of concern would emerge in China. “So far, the sequences uploaded by China into the global database suggest that most of the variants in circulation are really spin-offs of BA.5 or [other] omicron. And so really, a new variant is not emerging,” he said, adding that was important to remember that the variant expected to become dominant in the US, the UK, and Europe—XBB.1.5—had emerged in New York.⁶

“We need to continue to be very vigilant,” he warned. “We need to continue to try to get people over the

age of 65 primarily boosted. And we need to continue paying attention to this virus because, while the situation is better than it was before, the pandemic is far from over.”

- 1 FDA proposes once-a-year covid vaccine shots for most Americans. CBS News. 23 Jan 2023. <https://www.cbsnews.com/news/fda-covid-shots-yearly-for-most-americans/>
- 2 Centers for Disease Control and Prevention. Covid-19 vaccinations in the United States. https://covid.cdc.gov/covid-data-tracker/#vaccinations_vacc-people-booster-percent-pop5
- 3 Dyer O. Covid-19: China stops counting cases as models predict a million or more deaths. *BMJ* 2023;380:. doi: 10.1136/bmj.p2. pmid: 36596574
- 4 WHO urges China to step up vaccinations after rise in covid cases. *Financial Times* 2022 Dec 21. <https://www.ft.com/content/4fead016-b654-4d08-a9dd-70b25058023a> (Login needed)
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- 6 Mahase E. Covid-19: What do we know about XBB.1.5 and should we be worried? *BMJ* 2023;380:. doi: 10.1136/bmj.p153. pmid: 36657748

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