

# **How can vaccine research further contribute to achieve the control of the pandemic everywhere? Meeting objectives**

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**R&D**Blueprint

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to prevent epidemics

## Conclusions from October 25 meeting: Emerging evidence on additional doses of COVID-19 vaccines and their safety

We need to find ways to vaccinate more people in all countries, regardless of wealth

Authorized vaccines are still highly effective. The available evidence still does not support the need for widespread deployment of boosters

There is now still an opportunity to obtain important additional data, including what to (ultimately) boost with, what are appropriate booster dose levels, variant-specific information, more safety information, role of vaccine in seropositives

Identified research gaps include systematic collection of real-world safety and effectiveness data (ideally active and near-real-time) on more vaccines, investigation of dose-sparing, timing of boosting, better understanding of how variants affect VE

Importance of improving pharmacovigilance systems

International coordination and sharing of data and analyses remains essential

Decisions should be based on data and a transparent scientific process, with attention to clear communication

# The delta variant is still predominant

Overall, vaccines are still working very well, especially against severe disease

Almost a year after the first authorization of vaccines, the virus remains dynamic and the pandemic continues

Increased transmissibility of the evolving virus tells us we will need to vaccinate even more people to reach herd immunity

There is still a large shortfall in making vaccines available around the world

WHO has recommended against widespread use of boosters

# Now that the omicron variant has been detected in many countries:

Assessment of the threat will depend on its:

- Transmissibility
- Virulence
- Capacity for evading immunity in those previously vaccinated or infected

Key decisions will need to be made:

- What are the implications for vaccine development, vaccine evaluation, and vaccine deployment?

Assessment of the threat and decision-making will depend on results of research

- What needs to be done to facilitate the global response?

# Meeting objectives

Review the available evidence, enumerate knowledge gaps, and outline research priorities in terms of:

- Our understanding of the dynamics of disease transmission and the potential contribution of COVID-19 vaccines and other measures to control the pandemic, including in the context of the omicron variant of concern
- Current evidence and considerations regarding the administration of additional doses
- Novel approaches for evaluation of COVID-19 vaccines, including in the context of the omicron variant of concern

# Proceeding with critical work at risk....

The rapid development of COVID vaccines relied upon performing a lot of work at-risk

Increasing transmissibility of evolving SARS-CoV-2 variants, with the potential for immune escape with significant virulence suggests the importance of maintaining a proactive approach

- Data to fully evaluate the threat will take time to accumulate
- We don't want to later be in the position of wishing we had acted sooner

Even if omicron does not replace delta as the most common variant, the current situation will provide an important rehearsal for potential future dangerous variants or even future pandemics

# Key questions in today's sessions and panels

What research gaps are there in assessing the threat in the context of current dynamics of disease transmission?

How can we efficiently evaluate the potential need for variant-specific vaccines?

What are challenges in developing and assessing variant-specific vaccines, and how can research facilitate their development (including developers)

How can we rapidly and reliably evaluate effectiveness of variant-specific vaccines? Can we leverage experience with previous variants to make this process more efficient now or in the future?

- As primary vaccination series
- As boosters, whether of primary vaccination series or in those previously infected

# As we adjust the research agenda to reflect the changing situation, it is important to consider the global implications

Vaccine equity is not just a matter of fairness, but is critical for controlling the pandemic everywhere

If new vaccines are developed against omicron or other variants, how can we make sure that they are also available for deployment in the developing world? How can we make sure that they are available for testing of the next generation of vaccines?