

Introduction and objectives of meeting

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A scientific framework for epidemic and pandemic research preparedness
Scientific opportunities to achieve fast and equitable access to high-quality
and trusted vaccines for future pandemics.

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R&DBlueprint

Powering research
to prevent epidemics

Maximizing our research efforts to inform strategic actions

is critical to control outbreaks and prevent future pandemics.

“A systematic approach that studies prototype pathogens from viral families with known pandemic potential to develop MCMs against emerging or reemerging viruses”.

Innovative approaches and emerging technologies can help selecting among available vaccine and therapeutics candidates for prototype pathogens.

Principles for pandemic vaccines



Quality



Equity



Speed



Cost



Trust



Prioritizing the world's greatest pathogen threats

There are over **1,400** species of human pathogens in the world. These include viruses, bacteria and fungi.

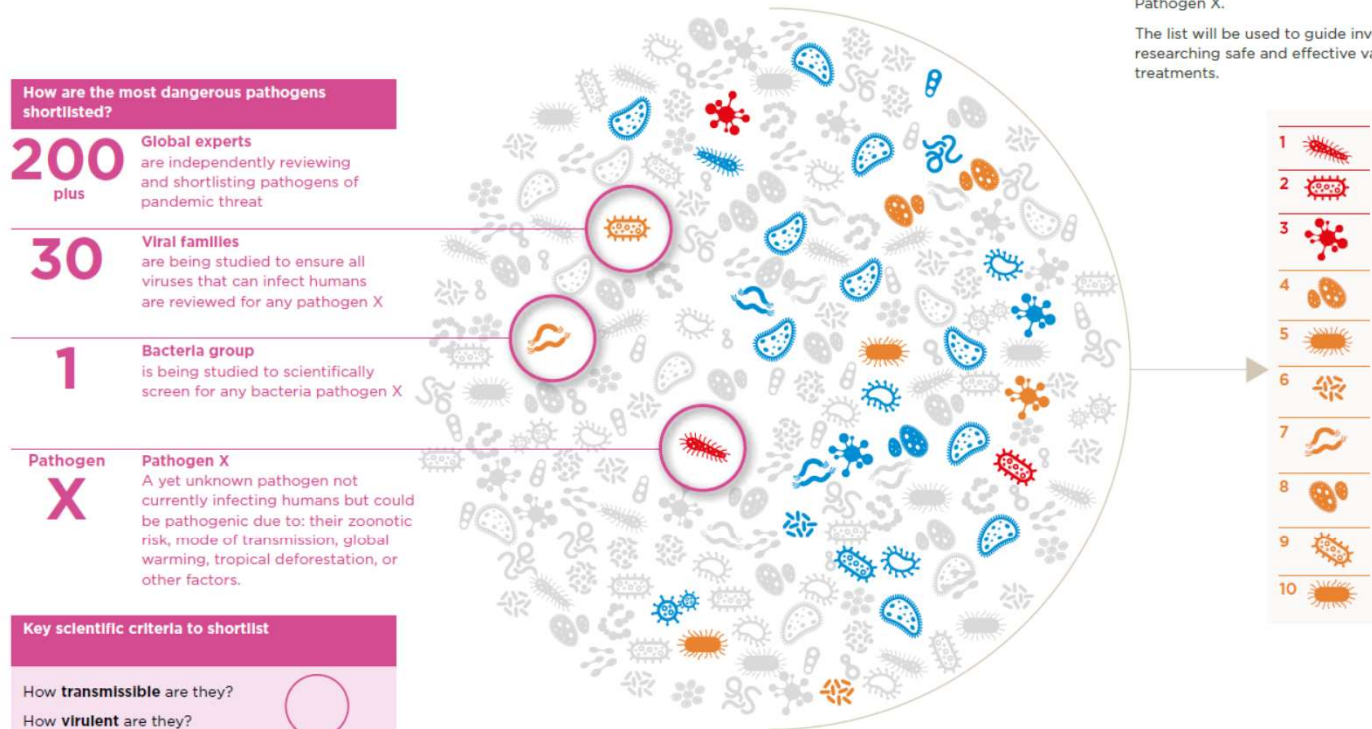
To guide future research efforts, the World Health Organization (WHO) R&D Blueprint for Epidemics launched on 21 November 2022, a global initiative to scientifically review all pathogens that could cause a future global pandemic (like-COVID-19) or an epidemic of international concern.

How are the most dangerous pathogens shortlisted?

- 200 plus** Global experts are independently reviewing and shortlisting pathogens of pandemic threat
- 30** Viral families are being studied to ensure all viruses that can infect humans are reviewed for any pathogen X
- 1** Bacteria group is being studied to scientifically screen for any bacteria pathogen X
- Pathogen X** Pathogen X
A yet unknown pathogen not currently infecting humans but could be pathogenic due to: their zoonotic risk, mode of transmission, global warming, tropical deforestation, or other factors.

Key scientific criteria to shortlist

- How **transmissible** are they?
- How **virulent** are they?
- Are there sufficient **vaccines** or **treatments** in the event of an epidemic or pandemic?



The final shortlist of priority pathogens

The list is expected in early 2024 and will shortlist priority viral families, the highest threat pathogens, the prototype pathogens for research and any Pathogen X.

The list will be used to guide investments into researching safe and effective vaccines and treatments.

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10

Pathogen reviewed and not shortlisted. These are viruses or bacteria unlikely to cause an epidemic or pandemic or there is equitable access to safe and effective vaccines / treatments.

Pathogens reviewed and not shortlisted. These are viruses or bacteria that have epidemic or pandemic potential but where there is equitable access to safe and effective vaccines / treatments.

Pathogens reviewed and shortlisted. These are viruses or bacteria that have epidemic or pandemic potential and where there are no or insufficient vaccines / treatments.

Pathogens reviewed and shortlisted. These are viruses or bacteria where the epidemic or pandemic potential is currently unknown but shortlisted as potential Pathogen X.

Series of Meetings

First Consultation (January 9)

A scientific framework for epidemic and pandemic research preparedness – regardless of perceived pandemic potential

Second Consultation (January 18)

Critical research for priority pathogens with epidemic potential

Third Consultation (Today, January 19)

Research response to pathogen X during a pandemic

Fourth Consultation (February TBD)

Addressing uncertainty during epidemics and pandemics by generating randomized evidence

TOPICS OF PARTICULAR RELEVANCE TO PATHOGEN X (an unexpected pandemic pathogen)

Vaccine platforms

Adjuvants

Manufacturing capacity to ensure equity

How can regulators prepare for the next pandemic?

What research do we need early in a pandemic?

- Antigen identification

- Structural research

- Diagnostics

- Animal models

- Assays

What could we have done better during COVID?

How do we coordinate global research on pathogen X?

MEETING SCOPE

In scope: **Vaccine Research** related to preparation for an unexpected pandemic pathogen (**Pathogen X**)

Important, but **not in scope** for today's discussions:

- Topics covered at other meetings in this series (e.g., clinical studies)

- Diagnostics, antivirals, other non-vaccine pandemic control measures

- Governance, funding, non-research topics

- Greetings (please use the Zoom chat for scientific discussion only)