COVID-19 Research and Innovation

Powering the world's pandemic response – now and in the future

Global research and Innovation Forum
24th-25th February 2022

World Health Organization

R&D Blueprint
Powering research
to prevent epidemics

WHO R&D Blueprint for epidemics

At the request of its 194 Member States in May 2015, the World Health Organization convened a broad network of experts to develop an R&D Blueprint for Epidemics.

A global strategy and preparedness plan was developed to allow for the rapid activation of research before and during epidemics.

…By embedding research at the heart of the pandemic response, we can achieve two goals: to help us end the acute phase of the current pandemic, and to protect us from the epidemics and pandemics of the future….

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Governments and international community needs to work together to be better prepared

The World Health Assembly agreed on December 2021 to launch negotiations for an agreement to fight pandemics.

The 194 Member States of the World Health Organization reached a consensus to **kickstart the process to draft and negotiate a convention, agreement or other international instrument under the Constitution of the World Health Organization to strengthen pandemic prevention, preparedness and response.**

Governments and international community needs to work together to be better prepared

WHO has defined as a priority to harness the power of science, research innovation, data and digital technologies as critical enablers of the other priorities – for health promotion and disease prevention, for early diagnosis and case management, and for the prevention, early detection, and rapid response to epidemics and pandemics.

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Some of the next priorities …

It is crucial to attend to and protect the most at-risk populations, and to be aware that the short- and medium-term impact of the pandemic have been particularly severe for the most disadvantaged and have worsened existing socio-economic divides
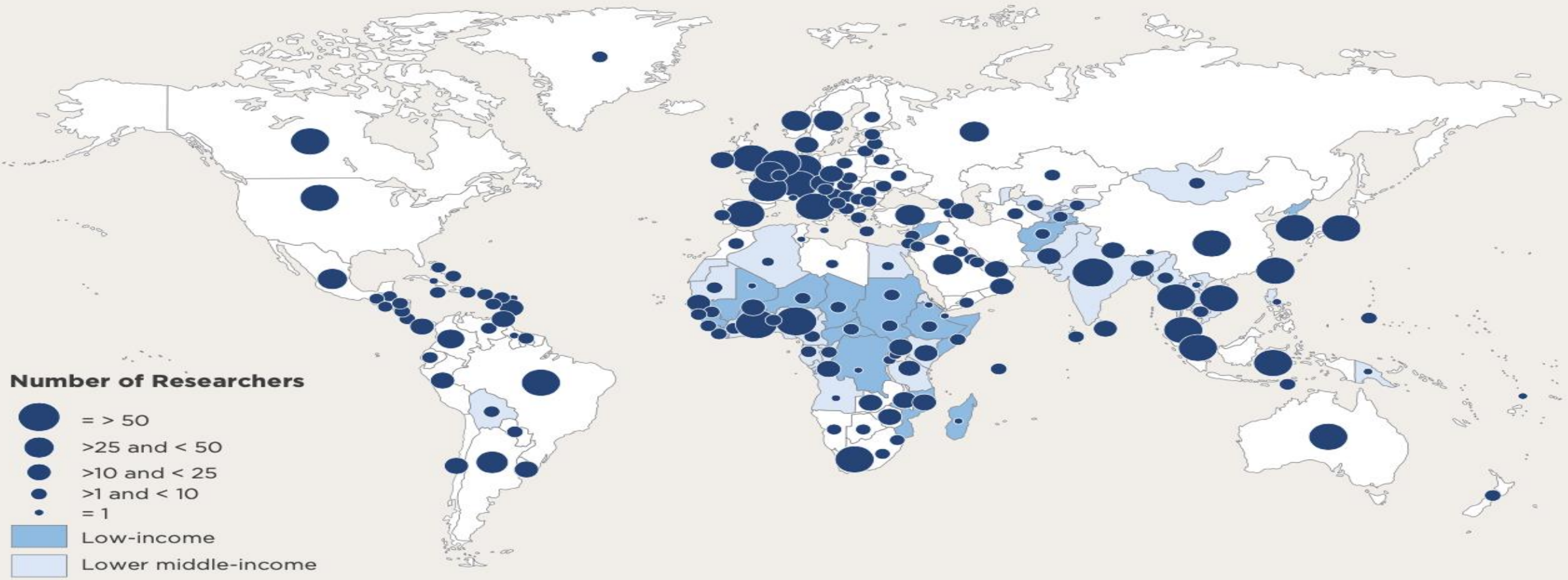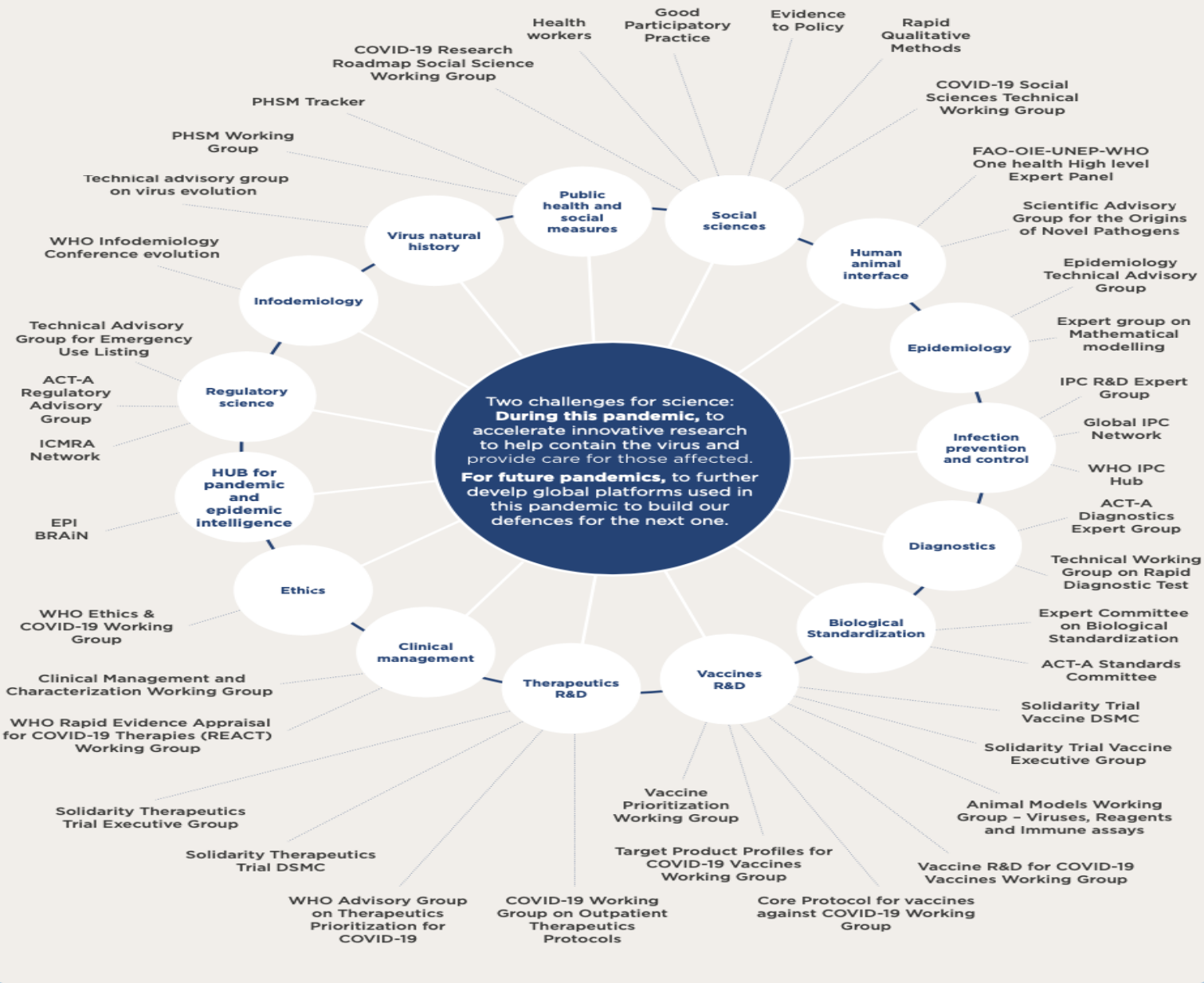
Democratize research

Inclusive global platforms to facilitate research

Registered researchers across the globe working to combat COVID-19
Over 5,000 researchers from 171 countries are now registered / collaborating to implement COVID-19 R&D.

Number of Researchers
- ● = > 50
- ● >25 and < 50
- ● >10 and < 25
- ● >1 and < 10
- • = 1
- ▢ Low-income
- ▢ Lower middle-income

A flexible, yet comprehensive architecture to address research... from A to Z
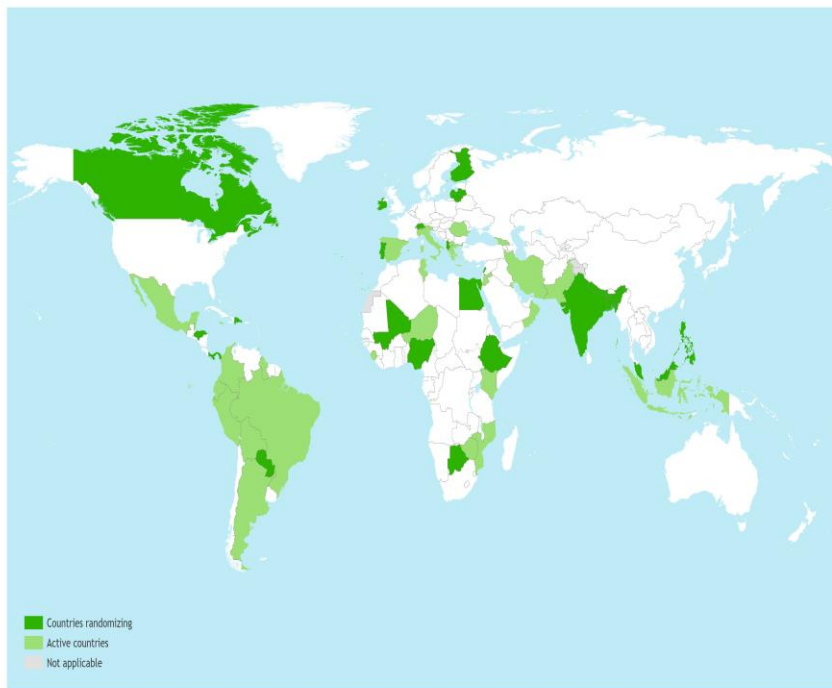
Some of next priorities …

Pragmatic adaptive trial designs should be prioritized and smaller, underpowered clinical discouraged.

Also, in a global trial, with different geographical needs, it should be possible to report different outcomes for different regions of the world. A composite endpoint that allows study participants to be graded along the full spectrum of possible outcomes could be ideal for this scenario.

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Global platform **SOLIDARITY** studies and trials with the national researchers and governments at the heart of it…

1. Therapeutics

COVID-19 Solidarity PLUS Therapeutics Trial

2. Serosurveys

Solidarity II - a global serologic study for COVID-19
442 research representatives from 65 countries are co-ordinating globally to better understand how the virus affects different populations across the world

3. Vaccines

Solidarity Trial Vaccines

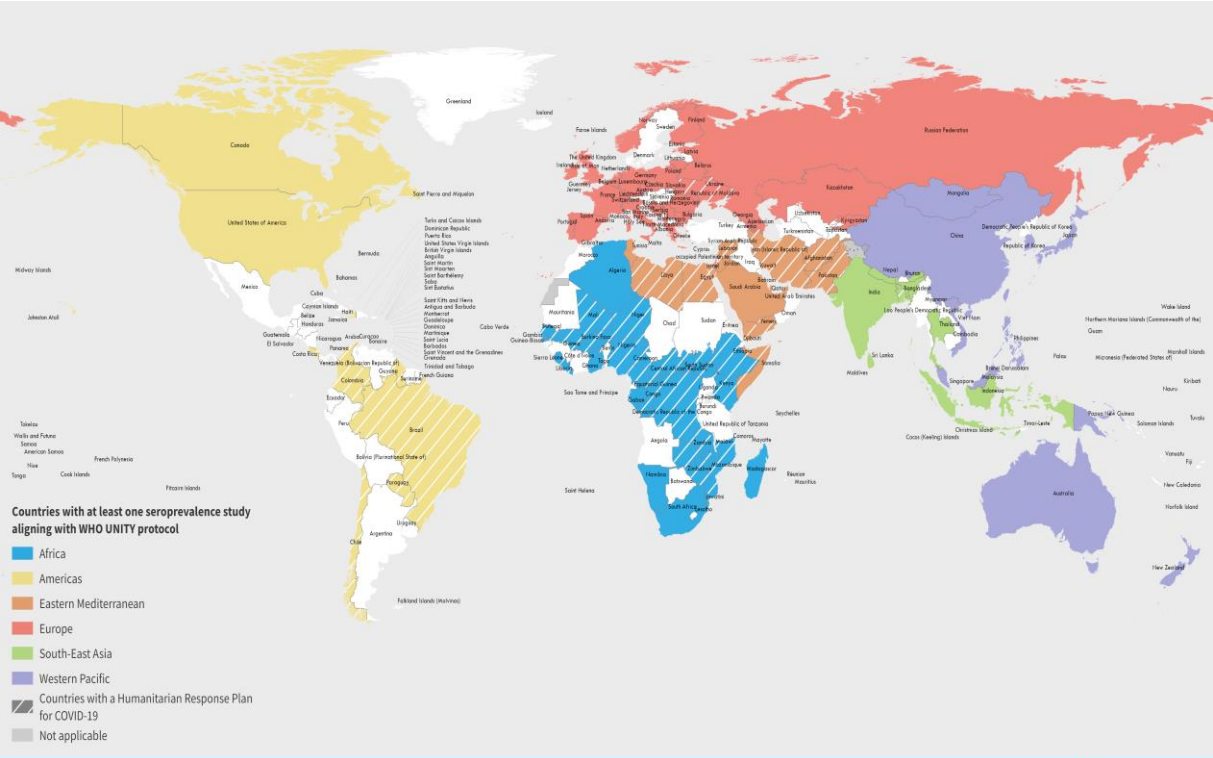# Global studies with the national researchers and governments at the heart of it…

WHO IPC Supported Research

Study
- Asymptomatic transmission of SARS-CoV...
- Bedside hand hygiene practice
- Case control
- Completion of human fit study for the re...
- Cough and droplet PCR sampling
- COVID-19 Droplet Protection Using Face ...
- Decontamination of masks and filtering f...
- Decontamination of masks with methyle...
- Efficacy and Impact of Methylene Blue + ...
- Environmental transmission study
- Evaluation of a novel, locally produced va...
- Evaluation of anesthesia airway equipme...
- Hand hygiene for all
- Human Factors comparison using separa...
- Improving the Effectiveness of Non-Medi...
- IPC cost effectiveness
- IPC portal for monitoring and evaluation
- Medical and Non-Medical Mask/N95 Res...
- Nosocomial transmission CRO
- Pandemic impact on hospital burden of ...

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Figure 1: the WHO IPC Teams coordinated 45 research projects, which included 27 multicentre studies in 45 different states in order to generate evidence on the research priorities identified in February 2020

Countries with at least one seroprevalence study aligning with **WHO UNITY protocol**, 1 January 2020– 31 Dec 2021

Countries with at least one seroprevalence study aligning with WHO UNITY protocol
- Africa
- Americas
- Eastern Mediterranean
- Europe
- South-East Asia
- Western Pacific
- Countries with a Humanitarian Response Plan for COVID-19
- Not applicable

The designations employed and the presentation of the material in this publication do not imply the expression of any opinion whatsoever on the part of WHO concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted and dashed lines on maps represent approximate border lines for which there may not yet be full agreement.

Data Source: World Health Organization
Map Production: WHO Health Emergencies Programme
Request ID: COVID19_46

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trust

/trəst/

noun   firm belief in the reliability, truth, ability, or strength of someone or something.
"relationships have to be built on trust"
synonyms: confidence, belief, faith, certainty, assurance, conviction, credence

To make progress on research, the scientific community relies on information sharing, reagent sharing, and resources (human and financial).

As we address the current pandemic, we also need to prepare for the future taking in consideration the importance of preparation, of achieving both speed and rigor, the importance of collaboration, the importance of global equity and the importance of sustained efforts.

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Existing processes and platforms will be the foundation for the research response for future epidemics, pandemics and other global health emergencies.

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The global coordination and support of the world's leading scientists and experts does not always grab the media headlines

But it has been key in underpinning the important initiatives and breakthroughs achieved in research and innovation

Thank you !

Thank you

Above all thanks to thousands of the volunteers across the world the made the trials and studies possible!

Over **5000** scientists contributing to deliberations, sharing results results, supporting and conducting critical research from almost every one of the 194 member states of WHO.

Numerous funders supporting critical research

Nearly **40** colleagues across WHO contributing to the R&D Blueprint objectives