



**CONCLAVE 2021**  
CSE's Annual Green Educator's Network Meet

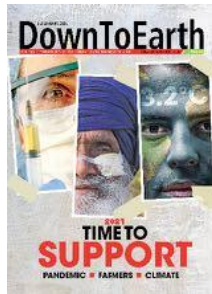
# The New World (Dis)order

Building a better and greener world in the post-pandemic era



# **Viruses, Variants and Vaccines**

## **The Race for Inclusive Governance**





# Pandemic update

## Global situation

- 228,394,572 confirmed cases
- 4,690,186 deaths

## Global vaccination: 5.5 billion adult population to be vaccinated

- 5,776,127,976 vaccine doses administered.
- 43.3% of the world population has received at least one dose

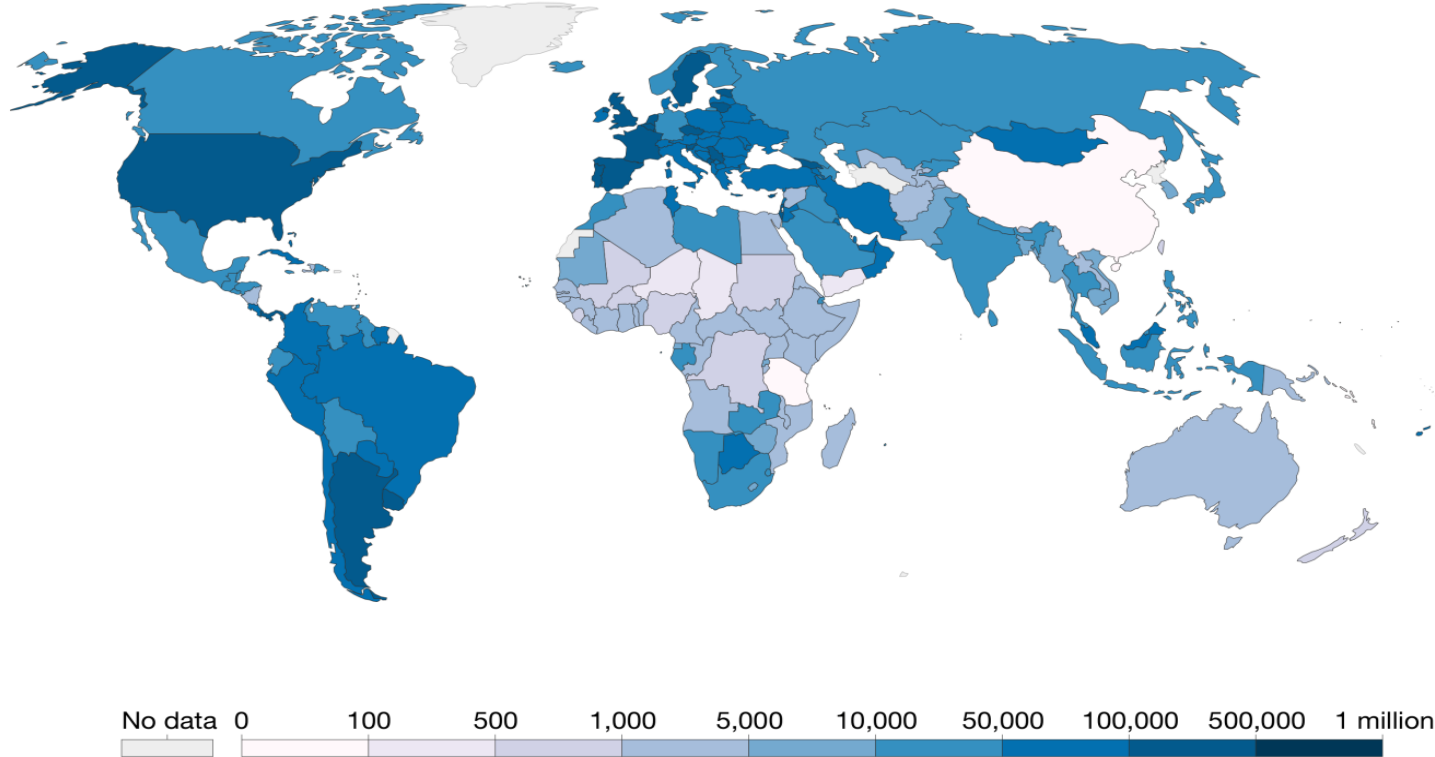


# Why is this of concern?

Inequity in populations vaccinated

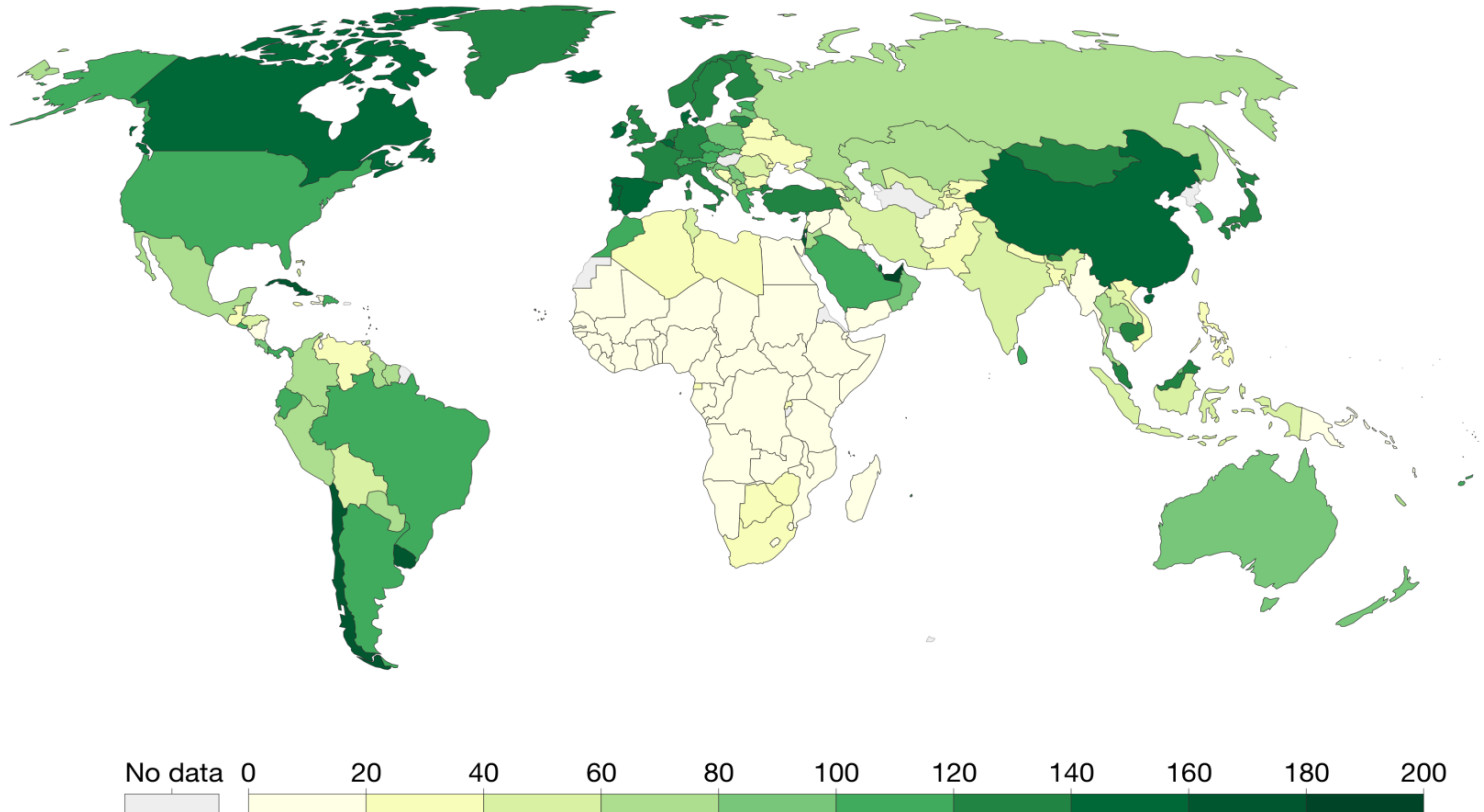
- High income countries: 66.6%
- Upper middle income countries: 62.4%
- Lower middle income countries: 28.6%
- Low income countries: 1.9%

# Cumulative confirmed COVID-19 cases per million people



Source: <https://ourworldindata.org>; September 21

# COVID-19 vaccine doses administered per 100 people



Source: <https://ourworldindata.org>; September 21



# System failure

This is despite the fact that

- Speed of vaccine development has been exemplary
- Vaccines approved for use by regulatory authority of at least one country: 24
- Approved by WHO: 6 (2 from AstraZeneca) Pfizer; AstraZeneca; Sinopharm; Sinovac; Moderna; Janssen
- Number of vaccines in clinical development: 117
- Systems set for equitable distribution via COVAX



# Covax

- Multilateral initiative established in April 2020. Coordinated by Gavi, the Vaccine Alliance; CEPI; WHO and UNICEF
- 180 participating countries. Rich countries pay for the vaccines, the 92 low- and middle-income countries are subsidised
- Deliver 2 billion doses in 2021. Ensure that at least 20% of the population in each country is vaccinated

## Concerns

- 19.3 billion doses secured across the world but only 5.09 billion of these to be distributed via COVAX. Only 301.9 million doses have been actually delivered
- Big pharma calling the shots. Not interested in providing cheap vaccine
- Deals with industry not transparent
- Vaccinating 20% of population is not sufficient for herd immunity
- Distributes vaccines on basis of population and not requirement
- Vaccine delivery after initial 20% not clear. Countries are being bullied by industry when they try to procure directly



# India at risk

## Indian situation

- 33,504,534 confirmed cases
- 445,385 deaths

## Indian vaccination: One billion adult population to be vaccinated

- 818,513,827 vaccine doses administered
- 45.7% population received at least 1 dose
- 15.7% fully vaccinated



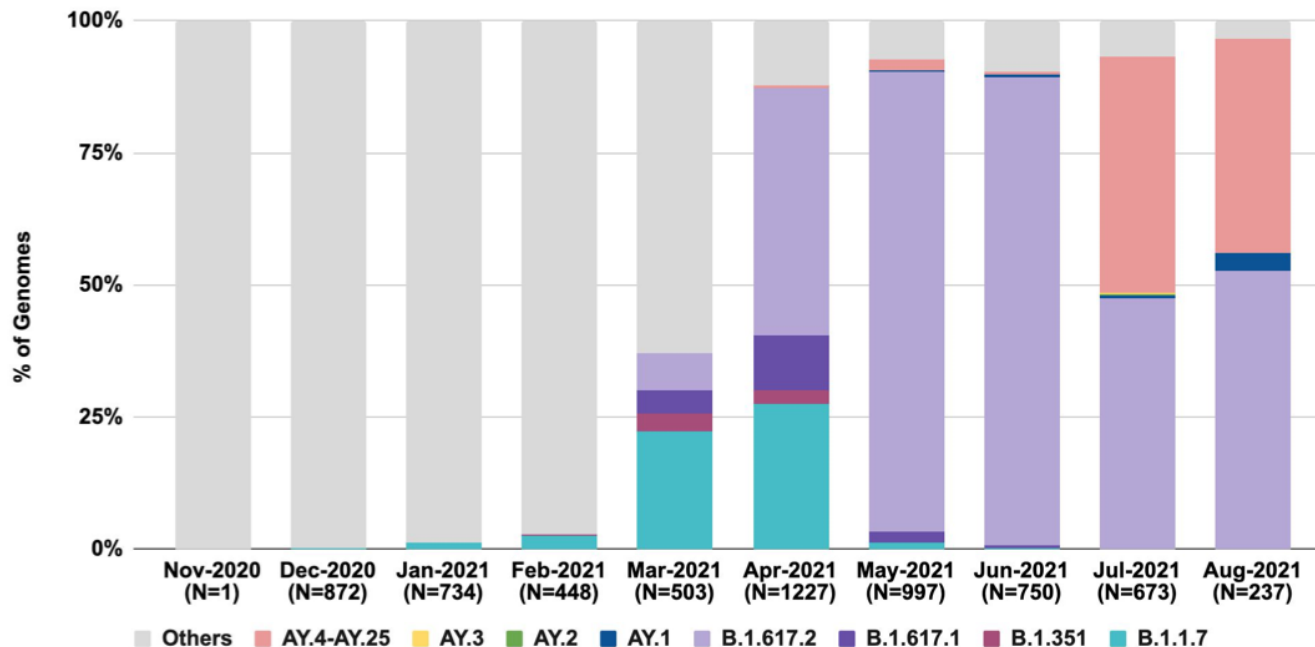
# Why non-availability of vaccine in India?

- Vaccine shortage despite robust pharma industry
- Indigenously developed vaccine licensed to only one manufacturer
- Decision to involve PSUs taken as an afterthought. PSUs being upgraded and still to deliver
- Vaccination policy created confusion
- Supreme Court had to address issue Suo Moto
- More vaccines would be needed if a decision is taken to vaccinate people below 18 years of age

# The virus and its variants

- Variants can extend the pandemic: more transmissible, escape the immunity produced by a vaccine
- Four variants of concern: Alpha, Beta, Gamma and Delta. Many variants of interest are also being monitored constantly
- Delta variant linked to India's second wave. Isolated in India in October 2020
- So far, studies suggest that the vaccines are effective against the variants but this could change with just one mutation

# Timeline of variants in Kerala



Source: <https://drive.google.com/file/d/1LLwmuA7iiEufBZIf4CQ4Wo1nV7doLzrL/view>



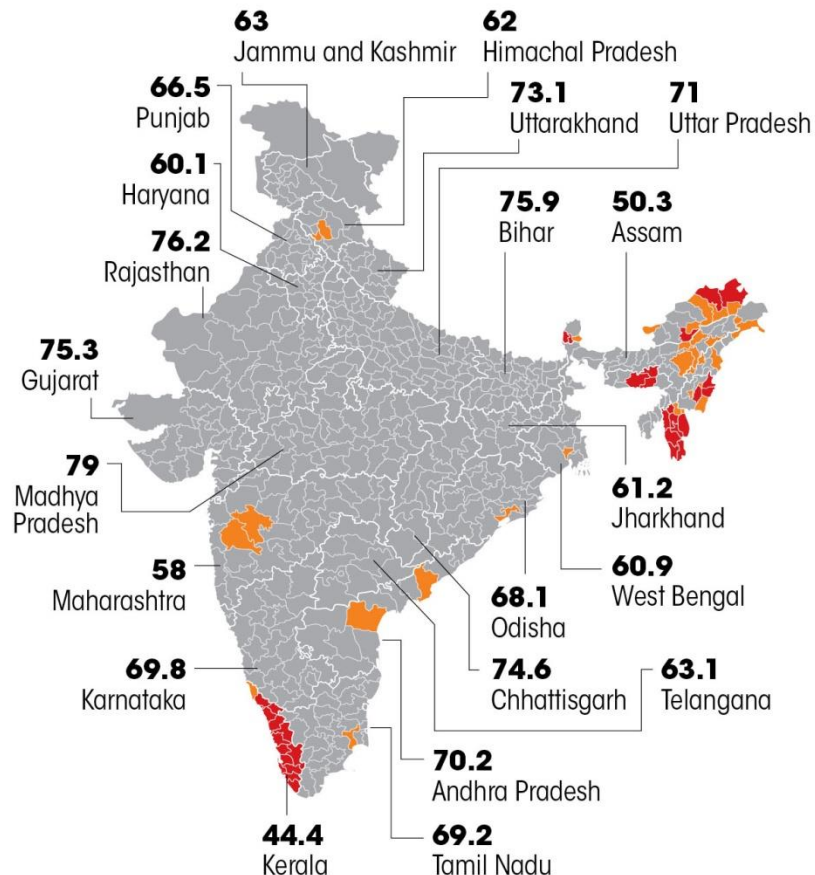
# Kerala paradox: many unknown

- The state has high number of cases despite vaccination
- Has low case fatality rate despite high number of elderly and people living with NCDs
- Good health care system and contact tracing mechanism but has poor contact tracing ratio
- More testing done but more reliance on antigen test could have resulted in many false negative. However, state has always had high test positivity rates
- Despite strict lockdown which ruined economy, the disease spread widely

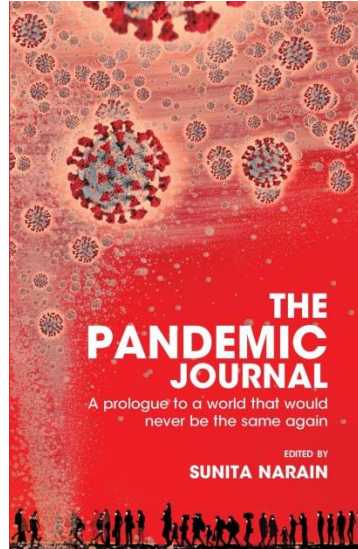
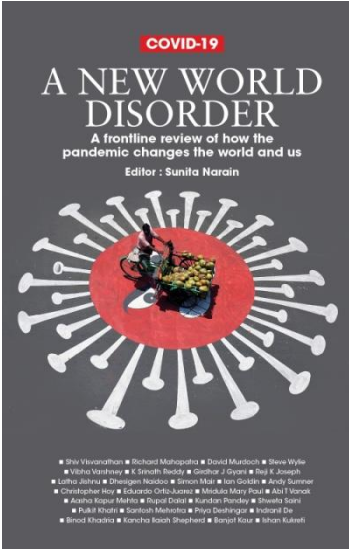
District-wise test positivity rates (September 10-16, 2021)

More than 10%    Between 5% and 10%    Less than 5%

00 % population with antibodies (June-July 2021)



Sources: Union Ministry of Health and Family Welfare and Indian Council of Medical Research



# Thank you

[vibha@cseindia.org](mailto:vibha@cseindia.org)