## India: Covid-19 Snapshot
(As on 8<sup>th</sup> December)

<table>
<thead>
<tr>
<th>Metric</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total cases</td>
<td>97.03 lakhs</td>
</tr>
<tr>
<td>Active cases</td>
<td>3.83 lakhs</td>
</tr>
<tr>
<td>Deaths</td>
<td>1.40 lakhs</td>
</tr>
<tr>
<td>Tests</td>
<td>14.8 crores</td>
</tr>
<tr>
<td>Case Per Million</td>
<td>7,031</td>
</tr>
<tr>
<td>Contribution</td>
<td>3.96%</td>
</tr>
<tr>
<td>Death Per Million</td>
<td>102</td>
</tr>
<tr>
<td>Tests Per Million</td>
<td>107,836</td>
</tr>
<tr>
<td>Case Positivity</td>
<td>6.5% (Overall)</td>
</tr>
<tr>
<td></td>
<td>3.2% (Last 1 week)</td>
</tr>
<tr>
<td>Case Fatality Rate</td>
<td>1.45% (Overall)</td>
</tr>
<tr>
<td></td>
<td>1.3% (Last 1 week)</td>
</tr>
</tbody>
</table>
Cases per million population – Amongst the lowest in the world

Source: WHO COVID-19 Dashboard updated 7th December 2020
Deaths per million population – Amongst the lowest in the world

Source: WHO COVID-19 Dashboard updated 7th December 2020
Deteriorating Situation in the World

Country Trajectory as on 8th December 2020; Source: coronavirus.jhu.edu,
India: Active cases continue to decline, now below 4 lakhs
Top States/UTs contributing to total active cases

Maharashtra: 76,852
Kerala: 59,607
Karnataka: 24,786
West Bengal: 23,829
Delhi: 22,486

These 5 states contribute 54% of total active cases in the country
COVID-19 Vaccination

“I would like to tell my countrymen that our scientists are dutifully engaged in the laboratories. They are putting in great efforts. At present, testing for three vaccines is in different stages in the country, once we get a green signal from our scientists, we will launch massive production of the vaccine. We have made all the preparations. We have drawn an outline to ramp up the production of the vaccine and to make it available to each and every person in shortest possible time.”

(Hon’ble PM’s address to the Nation, 15 Aug 2020)
## Indian Landscape of COVID-19 vaccines

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Product</th>
<th>Indian Manufacturer</th>
<th>Collaborator</th>
<th>Current stage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Covishield (Chimpanzee Adenovirus)</td>
<td>Serum Institute of India, Pune</td>
<td>Astra Zeneca</td>
<td>Phase II/III Applied for EUA</td>
</tr>
<tr>
<td>2</td>
<td>Covaxin (Inactivated Virus)</td>
<td>Bharat Biotech International Ltd, Hyderabad</td>
<td>Indian Council of Medical Research, India</td>
<td>Phase III Applied for EUA</td>
</tr>
<tr>
<td>3</td>
<td>ZyCoV-D (DNA vaccine)</td>
<td>Cadila Healthcare Ltd, Ahmedabad (Zydus Cadila)</td>
<td>Dept of Biotechnology, India</td>
<td>Phase II</td>
</tr>
<tr>
<td>4</td>
<td>Sputnik V (Human Adenovirus vaccine)</td>
<td>Dr. Reddy’s lab., Hyderabad</td>
<td>Gamaleya National Center, Russia</td>
<td>Phase-II over, Phase-III to start next week.</td>
</tr>
<tr>
<td>5</td>
<td>NVX-CoV2373 (Protein Sub-unit)</td>
<td>Serum Institute of India, Pune</td>
<td>Novavax</td>
<td>Ph III under consideration in India</td>
</tr>
</tbody>
</table>
## Indian Landscape of COVID-19 vaccines

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</thead>
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<tr>
<td>6</td>
<td>Recombinant Protein Antigen based vaccine</td>
<td>Biological E Ltd, Hyderabad</td>
<td>MIT, USA</td>
<td>Pre-clinical animal studies concluded. Phase I plus II human clinical trials started.</td>
</tr>
<tr>
<td>7</td>
<td>HGCO 19 (mRNA based vaccine)</td>
<td>Genova, Pune</td>
<td>HDT, USA</td>
<td>Pre clinical animal studies over. Clinical trials (Phase I and II) to start.</td>
</tr>
<tr>
<td>8</td>
<td>Inactivated rabies vector platform</td>
<td>Bharat Biotech International Ltd, Hyderabad</td>
<td>Thomas Jefferson University, USA</td>
<td>Pre-clinical (Advanced)</td>
</tr>
</tbody>
</table>

Hon’ble PM has personally interacted with and encouraged all vaccine manufacturers and scientists.
## COVID-19 Vaccine Landscape in India

<table>
<thead>
<tr>
<th></th>
<th>Vaccines in Pre-clinical stage</th>
<th>Vaccines in Clinical Trial</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>India</strong></td>
<td>3</td>
<td>6</td>
<td>9</td>
</tr>
</tbody>
</table>

- Multiple vaccine candidates in different stages of development, some may get licensed in next few weeks.
- Vaccine require 2-3 doses, 3 to 4 weeks apart.
- Even after vaccination, COVID precautions must be undertaken.
Institutional Mechanism: Vaccine Task Force (VTF)

• Constituted on 14th April 2020, co-chaired by Principal Scientific Advisor to Govt. of India and Member (Health), NITI Aayog.

• Representation of:
  - Relevant Ministries of Government of India
  - Technical Experts

• Provides guidance for focused research on Corona vaccines and other Science and Technology Issues.
Institutional Mechanism: NEGVAC (National Expert Group on Vaccine Administration for COVID 19)

- Constituted on 7\textsuperscript{th} August 2020, \textbf{Member (Health) NITI Aayog} is chair and \textbf{Secretary, H&FW} is Co-chair.

- Representation of:
  - \textbf{Relevant ministries} of Government of India
  - \textbf{Five State governments} viz. Assam, Madhya Pradesh, Maharashtra, Tamil Nadu and Uttar Pradesh
  - \textbf{Technical Experts}

- NEGVAC provides guidance on:
  - Prioritization of population groups
  - Procurement and Inventory management
  - Vaccine selection and
  - Vaccine delivery and tracking mechanism
Preparatory activities for roll-out of COVID-19 vaccine being carried by Central Govt. in collaboration with States/UTs.

1. Line-listing of Prioritized Population Groups for COVID 19 Vaccination
2. Multi level Coordination Mechanism
3. Strengthening of Cold Chain Infrastructure
4. Additional vaccinators
5. Communication strategy on vaccine safety, effectiveness etc.
Five key strategic principles

1. Orderly, *smooth implementation driven by technology*; prepare for one year or more.

2. No compromise of *existing healthcare services*, especially national programs and primary care.

3. Utilize *experience of elections* and universal immunization program.

4. Ensure *people’s participation*.

5. No compromise on *scientific and regulatory norms*, other SOPs.
Every single Indian who needs to be vaccinated will be vaccinated.

**Healthcare Workers (HCWs) (About 1 crore)**
Healthcare providers and workers in healthcare settings both government & private

**Frontline Workers (FLWs) (About 2 crore)**
Personnel from State and Central Police department, Armed Forces, Home Guard and Civil Defense Organization including disaster management volunteers and Municipal Workers (excluding HCWs)

**Prioritized Age Group (about 27 crore)**
Person above age of 50 years and persons <50 years with associated comorbidities
Progress on Health Care Workers data collection

• Process of collecting database of HCWs has begun across States/ UTs and Central Ministries.

• Data collected by respective states & UTs from government health facilities and private health facilities.

• HCWs data uploading on Co-WIN software going on.

• Process being monitored & verified.
Multi level Coordination Mechanism

NEGVAC
National Expert Group on Vaccine Administration for COVID-19

State Level
- State Steering Committee (SSC) (Chaired by Chief Secretary)
- State Task Force (STF) (Chaired by Principal Secretary Health)
- State Control Room (SCR)

District Level
- District Task Force (DTF) (Chaired by District Collectors)
- Urban Task Force (UTF) (Chaired by Municipal Commissioner)
- District Control Room (DCR)

Block Level
- Block Task Force (BTF) (Chaired by SDM/ Tehsildar/ BDO)
- Block Control Room (BCR)
Progress on Multi Level Coordination Mechanism

• State Steering Committee meetings and State Task Force meeting by 8\textsuperscript{th} December 2020.

• District Task Force meetings in all districts by 12\textsuperscript{th} December 2020.

• Block Task Forces meetings by 15\textsuperscript{th} December 2020.
Cold Chain Infrastructure augmentation

- Vaccines are temperature sensitive and need to be stored in specific temp.

- Presently cold chain system consists of 85,634 equipments for storage of vaccine at about 28,947 cold chain points across the country.

- Current cold chain is capable of storing additional quantity of Covid-19 vaccine required for first 3 Crore i.e. Health Care Workers and Front Line Workers.
Cold Chain Infrastructure augmentation

- Ministry in consultation with States/UTs has assessed the additional requirement for Cold Chain storage (Walk in Coolers, Walk in Freezers, Deep Freezers, Ice lined refrigerators etc.).

- Additional supplies would be available to States/UTs beginning 10th December 2020.
Additional vaccinators

- Around **2.39 lakh vaccinators (ANMs)** across the country provide vaccination under Universal Immunization Programme (UIP).
- Only 1.54 lakh ANMs to be used for COVID Vaccination.
- COVID-19 vaccination drive to have minimal impact on Routine Health Services including Routine Immunization.
- Additional Vaccinators being arranged in collaboration with States/UTs.
Implementation Preparedness

• Additional procurement for syringes, needles etc. on track.

• Implementation SOPs in final stages.

• Training materials being finalized.

• Detailed implementation plans being finalized with State Governments in coming days.
Co-WIN: Digital Platform for COVID 19 Vaccination Delivery

- **Co-WIN Mobile App**: Easy-to-use mobile app for recording vaccine data
- **Temperature Logger**: Temperature loggers for accurate remote temperature monitoring in real time
- **Co-WIN Beneficiary Management Platform**: Beneficiaries tracking, Vaccination Session Management
- **Co-WIN Dashboard**: Web interface for real-time visibility
- **Cloud Server**
  - Co-WIN App
  - Co-WIN Mobile App
  - Temperature Logger
  - Co-WIN Beneficiary Management Platform
Co-WIN (Beneficiary Management Platform)

**Administrator Module**
- Creation of session, respective vaccinators & managers will be notified

**Registration Module**
- Self Registration
- Bulk Upload
- Registration by Surveyor

**Vaccination Module**
- Verifying Beneficiary details
- Update Vaccination Status

**Beneficiary acknowledgement**
- Beneficiary to get a SMS alert after registration
- Electronic vaccination certificate, QR based

**Report Module**
- COVIN Dashboard
- Coverage & dropout reports
- Sessions planned v/s session held report
Transparent, Effective and Sustained Communication

- Good communication and education of people is crucial.
- Implementation plan to be explained.
- Prepare people to accept some adverse effects as happen with all vaccines.

Address challenges:
- Disinformation campaigns
- Raising doubts
- Anti-vaccine lobby
- Rumours (quality, safety and efficacy)
Thank You