

INSTITUTE *for* Competitiveness



INDIA'S COVID-19

Vaccine Development and Adminstration Journey





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Table of Contents

💐 IFC	INSTITUTE for Competitiveness

1.	Executive Summary	05
2.	Chronology Regarding Emergence of COVID-19	06
3.	Key Vaccines	08
4.	General Vaccine Development Process	09
5.	Timeline of Key Events	13
6.	Covaxin Development Timeline 2020-21	14
7.	NEGVAC Structure and Governance Mechanism	15
8.	Co-WIN Platform Process Flow	23
9.	COVID-19 Communication Strategy	24
10.	Covid-19 Vaccination Information Flow	28
11.	Vaccination Drive Monthly Developments 2021	29
12.	Role of Leadership	30

Executive Summary



The first few cases of COVID-19 infection were reported in Wuhan, China on 31st December, 2019, which quickly snowballed into an outbreak, and before the world could respond, the coronavirus spread into different parts of the world, turning into a pandemic in January 2020.



Chronology Regarding Emergence of COVID-19







The top five nations facing the maximum impact of COVID-19 outbreak in the initial six months accounted for 0.2 million of the 0.3 million deaths





Overview – Globally Widespread Vaccines (%age Coverage)

The scale and speed at which adult vaccination for Covid 19 happened is incomparable to any historical effort.

Source: Buchholz (May 2020)

General Vaccine Development Process

(~\$500 million, ~10 years)







COVID-19 Vaccine Development in India – Setting up the Task Force: The pre-emptive move by the Government.

Source: Adapted from MoHFW Notification (19 April 2020)



DBT – Roles and Responsibilities During COVID-19 Vaccine Development

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CDSCO Granted Test License Permission To The Following Seven Vaccine Candidate Companies

For the manufacture of COVID-19 vaccine, preclinical testing, examination and analysis-

12

Timeline of Key Events: India aligning itself with the world

Source: Adopted from PIB releases

Covaxin Development Timeline

the world to accomplish

this task

and 81.1% respectively on days 56

and 104 respectively.

The rapid development process 2020-2021

Phase 1 of COVID - 19

vaccine administration

initiated. Administration of

Bharat Biotech

announced the start of

phase IV trials to evaluate

NEGVAC Structure and Governance Mechanism: An integrated approach

Source: Adapted from Krishnan (December 2020), MoHFW (December 2020)

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19 Key Ministries (National Level)

Women and Child Development; Rural Development; Housing and Urban Affairs; Human Resource Development; Panchayati Raj; Defence;

Home Affairs; Sports and Youth; Information & Broadcasting; AYUSH;

Railways; Power; Food and Consumer Affairs; Social Justice and Empowerment; Tribal Affairs; Minority Affairs; Department of Animal Husbandry; Labour & Employment; Information Technology

NEGVAC

STATE LEVEL

State Steering Committee (SSC) Chair - Chief Secretary

State Task Force (STF) Chair - Principal Secretary Health State Control Room (SCR)

DISTRICT LEVEL

District Task Force (DTF) Chair: Distt. Collector/ Distt. Magistrate

Urban Task Force (UTF) Chair – Municipal Commissioner

District/ Municipal Control Room (MCR)

BLOCK LEVEL

Block Task Force (BTF) Chair – SDM/ Tehsildar/ BDO

Block Control Room (BCR)

Development Partners

(Technical & Monitoring Support) WHO, UNICEF, UNDP, JSI, ITSU, BMGF & Professional Bodies, CSOs, NGOs, Red Cross, Rotary, Lions International Club

23 Key Departments (State/District Level)

Integrated Child Development Services; Panchayati Raj; Rural Dev; Education; AYUSH; Urban Development; Sports and Youth; State Police Dept; Revenue; Public Works Department; Public Health Engineering; Information & Broadcasting; Defence; Food and Civil Supplies; Social Welfare; Minority Affairs; Tribal Affairs; Animal Husbandry; Railways; Labour & Employment; Info & Tech; State AIDS Control Society; Department of Power Scientific approach to Vaccine Administration

COVID-19 Phase-1 Vaccine Roll-out Beneficiaries

PHASE-1 BENEFICIARIES (~30 CRORE PEOPLE)

Healthcare Workers (~1 crore)

Frontline Workers (~2 crore)

Prioritized Age Group

(~27 crore)

{Population >= 50 years of age and <50 years with comorbidities}*

*Age calculation as on 1 January 2021 & as per electoral roll for Lok Sabha and Legislative Assembly elections

COVID-19 Vaccination Administration

Healthcare Workers Categories

*defined as healthcare service providers both in government and private sector including ICDS workers

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FRONTLINE WORKERS* (~2 CRORE)					
\downarrow	\downarrow	\downarrow	\downarrow		
Ministry of Defense	Ministry of Home Affairs	Ministry of Housing & Urban Affairs	State Government		
Army,Air Force,Navy,Coast Guards	 Assam Rifles (AR) Border Security Force (BSF) Central Industrial Security Force (CISF) Central Reserve Police Force (CRPF) Indo Tibetan Border Police (ITBP) 	 Municipal Workers including: Sanitation workers in COVID-19 Care Centers Waste Collectors Sweepers & Emptiers Waste processing plant operators, engineers, & segregators 	 Revenue officials engaged in COVID- 19 related activities State Police 		

• National Security Guard (NSG)

- Sashastra Seema Bal (SSB)
- Home Guard, Disaster Management Volunteers, Prison Staff

- Frontline ULB staff
- Vehicle drivers including water tank operators
- Cremation ground staff
- Maintenance staff

19

*Includes police staff, defense and municipal workers engaged in delivery of essential public support and safety services

COVID-19 Phase-2 and Phase-3 Vaccine Roll-out Beneficiaries

Session Sites – Types for Different Priority Groups

Notes:

 Facilities having <100 beneficiaries were clubbed together to make an injection load of 100 and minimize vaccine wastage.
 Election polling booth list was used for identifying outreach session sites.
 DTF finalized the session sites as per available resources.

HEALTHCARE WORKERS

Fixed Session Sites at health facilities (Government or Private)

Government Health Facility at PHC level and above Private Health Facility having HCWs >=100

FRONTLINE WORKERS

Fixed Session Sites at health facilities (Government or Private)

Outreach Session Sites like Offices of FLWs, Schools, Colleges, Community Halls, Municipal Offices etc. in their residential areas.

OTHERS -PRIORITIZED AGE GROUP, ALL ADULTS

Fixed Session Sites at health facilities (Government or Private)

Outreach Session Sites like Private Offices, Schools, Colleges, Community Halls, Municipal Offices etc. in their residential areas.

Special Mobile Teams for the people living in hard-to-reach areas.

Vaccination Session Site Layout and Flow of Beneficiaries

The final step before conducting the vaccination session involved undertaking the detailed session planning in terms of layout plan for entry point, waiting room, vaccination room, observation room, and exit point for the beneficiaries. This flow of beneficiaries from the time of entry to making an exit involved the following steps:

Step 3

Vaccination Officer-2 authenticated the registration documents of the beneficiary in the Co-WIN system along with the Aadhaar details before allowing him/her to the vaccination area.

Step 4

Vaccination Officer vaccinated the beneficiary and updated the beneficiary vaccination status as 'vaccinated' on the Co-WIN platform.

Step 5

Beneficiary was moved to the observation room/ area and asked to stay there for 30 minutes before leaving

🕄 - WIN

Step 7

After vaccination status of the beneficiary is updated in Co-WIN by the vaccination team, automated SMS notification was delivered to the beneficiary containing the link for downloading the vaccination certificate and information regarding the subsequent dose.

Step 6

Vaccination Officers 3 and 4 were responsible for managing the crowd at the session site; monitoring the vaccinated beneficiary for any adverse event during observation; ensuring that vaccinated beneficiary stayed in the observation area for 30 minutes after the vaccination; supporting the Vaccination Officer during vaccination; ensuring compliance of the social distancing guidelines by all the stakeholders at the vaccine session site; and counselling the unregistered beneficiaries for next step towards vaccination.

Step 1

Pre-registered beneficiary (Co-WIN platform) visited the session site as per the allocated time-slot.

Step 2

Vaccination Officer-1 checked the Photo- ID and verified the pre-registration status of the beneficiary before allowing him/ her to the waiting area.

Co-WIN Platform Process Flow

Input Features

- Configure National, State, and District Level User Admins.
- Configure Database for Vaccine Administration.
- Database Build-up for Vaccinators & Supervisors.
- Configure COVID-19 Vaccine and Resources Allocation, and Logistics Management.
- Configure the Vaccine Session Sites.
- Database Build-up with Beneficiaries Details.
- Facilitate Self-registration.

Processing

- Integrate and Link Session Sites, Vaccinators, Supervisors, and Beneficiaries.
- Sessions Management using m-app.

- Verify, Authenticate and Confirm Vaccination using m-app.
- Monitoring and Reporting Statistical Outcomes.
- Analytics and Dashboard.

Key Output Features

COVID-19 Communication Strategy Clarity On Communication Objectives: Managing the challenge of vaccine hesitancy

02

Target entire population with periodic, frequent, simple and focused communication regarding vaccine availability, registration, safety, social distancing, dos and don'ts.

01

Target hesitant people with detailed communication regarding the efficacy and safety of COVID-19 vaccines to promote a systemic behaviour change orientation and enhance public confidence. Target eager people by highlighting the significance of phased and prioritized approach rather than launching the vaccination drive as a big-bang approach to quell their concerns regarding wait-time.

03

Spread awareness about the on-ground statistics regarding the vaccination sessions being held, number of people getting vaccinated per day or per week, approval of new vaccines, as well as vaccines under development, testing figures, etc.

04

Make people aware and conscious about the need to maintain and sustain preventive behaviour of taking self- directed steps like following social distancing norms, wearing mask, frequent hand-washing with soap, and going for testing in case of any symptoms.

05

COVID-19 Communication Strategy

Key Objectives & Choices Framework

COVID-19 Communication Strategy

Key Stakeholders

- vaccine Eagerness Groups;
- Vaccine Hesitancy Groups;
- Healthcare Workers;
- Front-line Workers

Institutions and Health Experts

- Academia
- Alternative Medical Practitioners
- Traditional Healers
- Naturopaths
- ${\boldsymbol{\cdot}} \text{ Homeopaths}$

Key Stakeholders

- NGOs and CSOs
- Professional Bodies
- Medical Fraternity
- Social Influencers & Youth Platforms
- Social Networks

j Elected I Representatives

- Members of Parliament (MPs)
- Members of Legislative
- Assembly (MLAs)
- Panchayat Representatives

- Print Media
- Electronic Media
- Digital Media

COVID-19 Communication Strategy

Key Platforms

Entertainment Industry, Sports and Politics

Influencers Teachers and Leaders - Local, Faith, Socio-Cultural, Panchayat

> **Frontline Workers** AWW, ANM, ASHA

Management Committee, Gram Sabha, NSS, Cooperatives, CSOs, NGOs, SHGs

Digital Media Twitter, Facebook, YouTube, WhatsApp

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Community Media Local folk songs, Story-telling, Leaflets, Drama, Nukkad Nataks

Electronic and Print Media DTH, TV, Radio, Newspa- per, Mobile, Cable TV

Display / Outdoor Media Bill Boards, Hoardings, Bus Panels, Posters, Wall Paintings

Covid-19 Vaccination Information Flow

INFORMATION FLOW ON COVID-19 VACCINE

Vaccine Eagerness

- Acknowledge and Educate VE segment regarding the significance of prioritybased segmentation strategy.
- Share timely and accurate information with people waiting for vaccination and address any knowledge gaps.
- Refer the individuals to MoHFW website and other Social media handlers for reliable information and proactively manage AEFI.

Vaccine Hesitancy

- Deepen the Community Engagement with target groups to gain trust.
- Engage and Train local influencers from target communities to strengthen trust and transparency with the local people.
- Develop and Publish articles regarding safety and efficacy of COVID-19 vaccine in national, state and regional media.
- User articles and research in support of COVID-19 vaccine, scientific explanations and clips of credible influencers.

COVID-19 Appropriate Behaviors

- Promoting CAB messaging at state and regional levels
- Engaging influencers at different levels to strengthen CAB.
- Disseminate rationale of continuing CAB after COVID-19 risk gets over. Leverage official print, electronic (TV, cable), and digital platforms like WhatsApp, telegram and social media handles.
- Leverage NGOs, CSOs, State Rural Livelihood Mission, NSS local chapters, SHGs, Gram Sabha, Mohalla Samitis, Resident Welfare Associations etc. to disseminate messages

Vaccination Drive Monthly Developments 2021

Role of Leadership

With Prime Minister Modi at its helm, Gol designed and implemented an inclusive and responsive strategy after gathering the feedback and advice from the experts (institutional, individual, development organizations) with technology, implementation, planning, crisis management, and healthcare skillsets. The initiatives taken by the Gol highlight the significant role of the leadership in handling the crisis situation.

