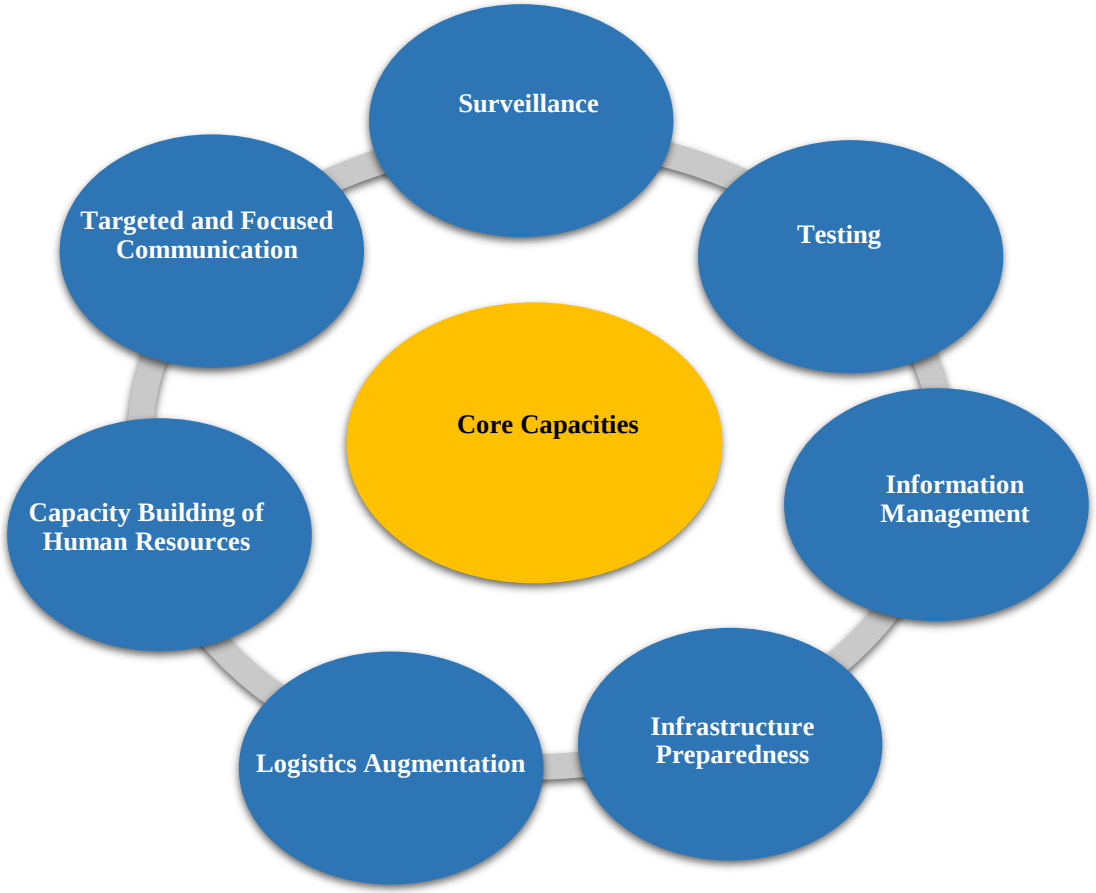
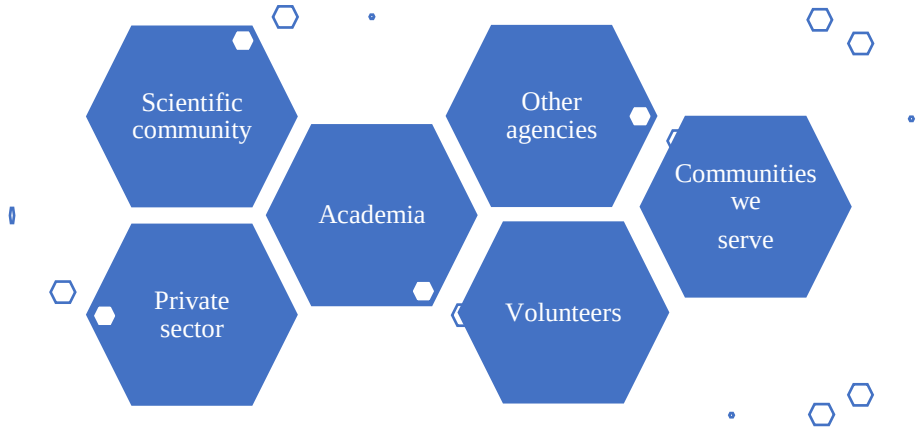
Public Health Response to COVID

Core capacities driving India's public health response for Covid-19



Detailed description about all component is from slide no. 21

All of society approach- Partners:



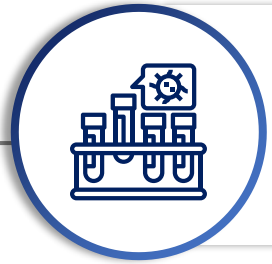
Objectives

Key points to Fight COVID-19 battle

Containment and surveillance

- Break the chain of transmission through strict containment and enhanced surveillance

Reduce Infections



Testing

- Ensure no potential COVID-19 affected persons remain undiagnosed

Increase Detections

Treatment

- Improve quality of care
- Reduce COVID-19 related deaths

Reduce Deaths

Action Plan: 6 pillars to win against COVID-19

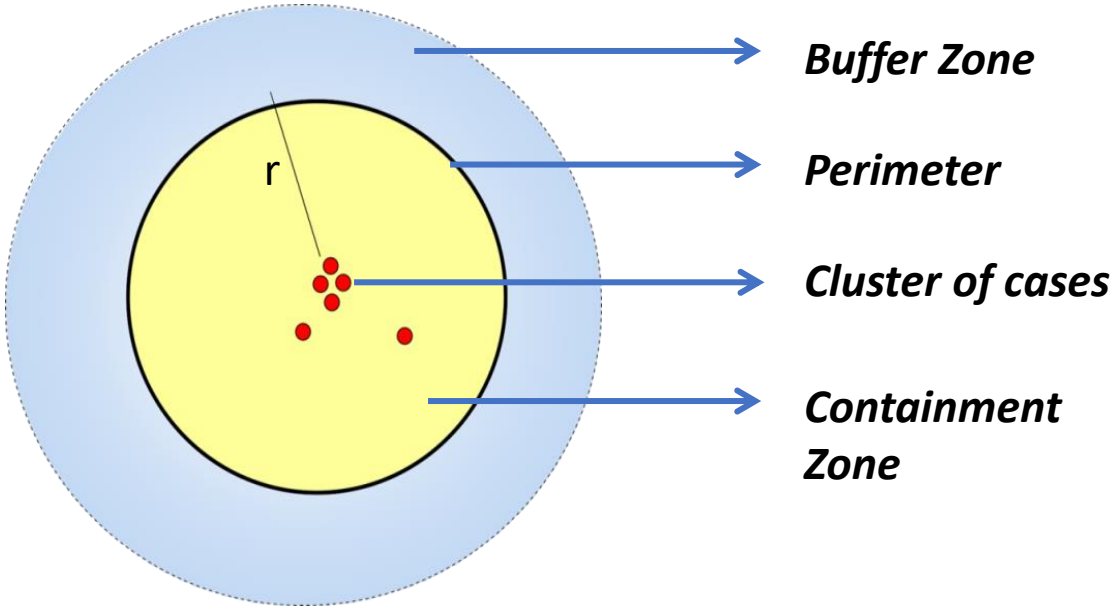
1. **Containment and Surveillance**
2. **Testing**
3. **Treatment**
4. **Vaccination**
5. **Citizen communication**
6. **Information management**

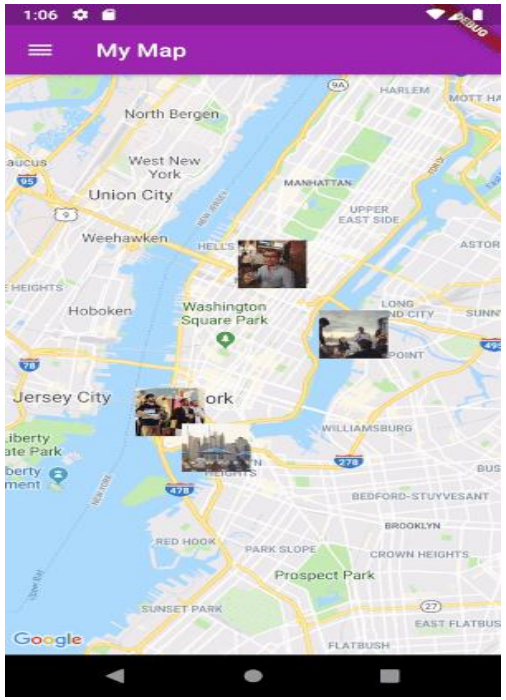
Buffer and Containment Zone

Containment Zones are delineated based on:

i. Mapping of cases and contacts
ii. Geographical dispersion of cases and contacts
iii. Area having well demarcated perimeter
iv. Enforceability of perimeter control

Better to err on side of caution & opt for larger containment zones





Avoid infection spread OUTSIDE containment zones

Ensure perimeter control:

- Restrict movement in & out of containment zones except for essential services
- Take support from police & local organizations like:
  - RWAs in urban areas
  - PRI in rural areas

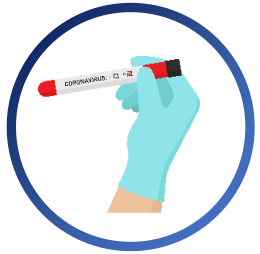
Avoid infection spread INSIDE containment zones

- Restrict movement within containment zones
- Essential services (e.g. drugs, grocery) to be provided at door step of households
- Take help of community volunteers in management
- Effective communication with community to ensure support

Containment and Surveillance: Key parameters to monitor

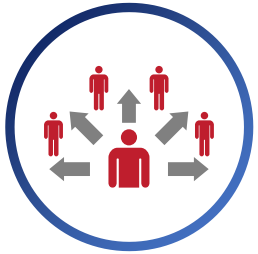
Accurate delineation & implementation of Containment Zones?

Parameters to monitor	Normative Benchmarks
% daily new cases coming from outside active containment zones	< 25% Increase size of containment zones if more cases from outside
% of containment zones which are active after 14 days of detection of last case	0% Review of containment efforts efforts in active containment zones
Average number of households per containment zone (urban areas)	>50
Average area under containment per containment zone (rural areas)	300m – 1km radius
People's movement inside and accross perimeter	Restricted to essential services only



Surveillance & testing for all patient categories?

Parameters to monitor	Normative Benchmarks
% of households in containment zones screened everyday	> 50% (ideally 100%)
No. of teams for door to door case search per 100 households	> 1
Active surveillance and testing of contacts/suspects among high risk population (> 60 years and those with co-morbidities) in containment zones	100 %
Testing of all symptomatics (SARI/ILI) in buffer zones • Confirmation % • % of total cases	*As less as possible*



Adequate contact tracing?

Parameters to monitor	Normative Benchmarks
% of cases coming from contact tracing	>80%
Average contacts traced per positive patient (within 72 hrs)	30 (24)
% of contacts which were traced got tested by RT-PCR	100%
Percentage of contacts traced placed under quarantine	100%

Containment and surveillance: Focus areas (1/2)

Door to door active case search

Whom to visit?

All homes in containment zones with special focus on:

- ILI / SARI patients
- Elderly (60 yrs+)
- Co-morbid

How often?

Every household ideally everyday or at-least once in every 3 days minimum

What to check?

- COVID-19 symptoms
- Temperature
- SpO2 level (concern if <95% SpO2);
- Testing for elderly or co-morbid

Requirements for active case search

- ✓ **Team** - 2 members for every 100 households
- ✓ **Instruments** - correctly calibrated infrared thermometer and pulse oximeters
- ✓ **Supplies** - Appropriate triple layer masks, gloves, PPEs, hand sanitizers etc. for ASHA/ANMs/HCWs as per the technical guidelines already issued

Leverage AarogyaSetu+ ITIHAS portal to identify emerging hotspots for active surveillance

DM to effectively monitor active case search and parameters mentioned previously

Containment and surveillance: Focus areas (2/2)

Contact tracing

Ensure all contacts (on an average 30 contacts per confirmed case) are traced & quarantined **within 72 hours**

- Onboards **volunteers** for contacts tracing
- Create **district/ward level tele-calling teams** (MBBS students, trained teachers, health and admin staff etc.) to support on-ground teams
- Use **Aarogya Setu** for contact identification
- Use **office and RWA teams** for reporting of contacts

Testing of high-risk contacts

Quarantine of contacts

Home quarantine

Low risk population

- Sufficient space at home
- Separate room and toilet

Monitor vitals daily through **regular field visits, calls (Call Center), mobile app**

Facility quarantine

High risk population

- Limited space
- High population density

Monitor vitals daily by health personnel

Immediately take action if SpO2<95% with focus on elderly or co-morbid

Testing: Key parameters to monitor

Adequate testing?

Parameters to monitor	Normative Benchmark
Confirmation %	Less than 5%
Tests per million per day	More than 140
Ratio of Test growth rate & Case growth rate (week on week)	> 1
% labs with less than 90% capacity utilization in last week	0%

Adherence to testing guidelines?

Parameters to monitor	Normative Benchmark
% of symptomatic Antigen negative being re-tested through RT-PCR	100%
% share of antigen as proportion of total tests	<30%

Testing speed?

Parameters to monitor	Normative Benchmark
Turnaround time from sample collection to test results upload by lab	<24 hours

Testing: Focus areas (1/2)

Ensure adequate testing volumes

>140 tests per million per day

<5% confirmation rate

Testing growth> case growth

Through

Existing capacity

- **Increase utilization (90%+)** e.g. multiple shifts
- **Ensure sufficient supplies** like RT-PCR, VTM, swabs, triple layer packaging, PPE etc.
- **Tie-up with labs** in nearby districts
- **Monitor** low utilization labs
- **Use** antigen and pooled testing judiciously

Creating New capacity

- Set up **new labs (govt. and private)**
  - In all medical colleges (BSL 3 labs)
  - In all District Hospitals
- **Increase infrastructure at existing labs**
  e.g. add more RT-PCR/ TrueNAT/CB-NAAT machines

Testing: Focus areas (2/2)

Comply with ICMR testing guidelines

- Test all **patient categories** to target **<5% confirmation rate** in each category


Contacts traced


SARI/ILI patients


HCWs


Vulnerable (60 yrs+, co-morbid)

- Use Rapid Antigen tests in **containment zones & healthcare settings as per ICMR guidelines**
- **Retest all symptomatic negatives of antigen test** with RT-PCR, ensure quarantine till result declaration

Eliminate testing delays


Sample collection

- ✓ Courier to lab linkage
- ✓ Vehicles
- ✓ HR
- ✓ RT-PCR app


Transport to lab

- ✓ Testing equipment
- ✓ Supplies (RNA extraction kits/ RT-PCR kits etc.)


Test completion


Result entry on portal

- ✓ Dedicated DEO

Treatment: Key parameters to monitor (1/2)

Fatality mitigation?

Parameters to monitor	Normative Benchmarks
Weekly district CFR	<1%
% deaths within 72 hours of hospitalization (timely and seamless hospitalization)	*As low as feasible*
Death audit and its follow up (in 72 hours)	100% - Particularly for hospitals reporting high CFR

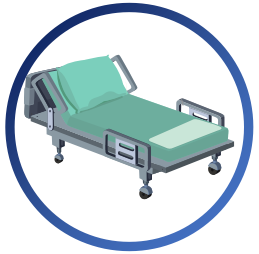
Protecting the vulnerable?

Parameters to monitor	Normative Benchmarks
CFR for co-morbid patients in district	<2 times of district CFR
CFR for patients over 60 years	<2 times of district CFR

Quality of infection prevention?

Parameters to monitor	Normative Benchmarks
% confirmation among HCWs in a district	<State or India avg.
% confirmation among HCWs in a facility	<District avg.

Treatment: Key parameters to monitor (2/2)



Preserve critical bed capacity – but triage effectively

Metric	Threshold
% of active cases in home isolation in district	<40% (That too only for those cases adhering to MoHFW guidelines on home isolation)
% of home isolated cases whose SpO2 & temperature is being monitored daily	100%

Ensure adequate capacity of critical care

Metric	Threshold
District wise & facility wise occupancy for upgrading infrastructure: A. % occupancy of oxygen beds B. % occupancy of ICU beds C. % occupancy of ventilators	<50% Plan upgradation of health infrastructure as per the case growth trajectory at least a month in advance

Treatment: Focus areas (1/3)

Set up sufficient dedicated Covid facilities

CCC (Covid Care Centre)

Patients with mild and very mild symptoms

DCHC (Dedicated Covid Health Centre)

Patients with moderate symptoms (oxygen beds)

DCH (Dedicated Covid Hospital)

Patients with severe symptoms

(ICU beds)

Ensure **separate wards for suspect and confirmed patients**

Ensure sufficient isolation beds, oxygen support beds and ICU beds

Utilize existing facilities

- Dedicate separate non-covid facilities/blocks for covid (in public & private facilities)
- Upgrade oxygen beds to ICU beds
- Increase beds in existing facilities subject to social distancing norms

Create new facilities

- Decide to construct new COVID-19 facilities (4-6 weeks before expected bed run out e.g. Delhi, Mumbai etc.)
- Take support from organizations like DRDO etc.
- Increase institutional facilities e.g. convert hostels, stadiums, railway coaches, hotels etc. into isolation/quarantine facilities

(subject to strict IPC norms)

Treatment: Focus areas (2/3)

Suspect case

Testing

Confirmed cases

Ensure availability of ambulance

Facility

Timely bed allocation

Through helpdesk at facility

- **Isolation bed**
- **O2 bed**
- **ICU bed**

Ensure proper IPC practices

Treatment as per clinical mgmt. protocol

Seamless up-referral (ensure ambulance, facility mapping)

Up-referral facility

Discharge/ Migration/ Death

Conduct death audit: Analyze root cause of death & take corrective action

Facility admission if needed

Ensure only patients as per MoHFW guideline are allowed home isolation:

- Very mild symptoms/ asymptomatic
- Is not co-morbid
- Separate room and toilet

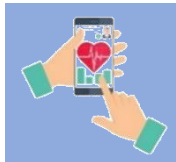
Home isolation/ quarantine

Ensure daily monitoring through field visits, phone, mobile app

HCW to monitor:

- SpO2 (escalate if <95%)
- Temperature
- Complications, if any

Discharge/ Migration/ Death



- Use Telemedicine (e.g. eSanjeevani application by CDAC) subject to prescribed guidelines
- Ensure all facilities attend clinical practices dissemination by state Center Of Excellence
- Ensure use of Facility app for regular data updation

Treatment: Focus areas (3/3)

Keep at least 15 days stock of all logistics

- **Request state for supplies**
  - State can **procure supplies** on GeM Portal
  - **Inter district transfer** based on consumption & existing stock at districts
- **Local purchase by district** (e.g. on **GeM portal**) subject to **procurement guidelines**

Ensure stock at all facilities
(can plan inter-facility transfer too)

Follow protocol for HCWs

- **Proper roster of HCW on COVID-19 duty -** fortnightly shift & quarantine as per norms
- **Check HCW infection rate on weekly basis through:**
  - Rapid antigen test
  - RT-PCR testing for symptomatic HCW
  - Pooled RT-PCR testing
  - Sero-surveillance (rapid antibody test)
- **Keep HCWs motivated through IEC**
  - Run local campaigns e.g. #ThankYouHCW social media campaign
  - Share videos from MoHFW website
  - Share inspirational stories of HCW with citizens

Sufficient and skilled HR is key to fighting the pandemic

Use additional sources for HR

- **Covid warriors (https://covidwarriors.gov.in/) – iGOT certified**
- **Govt. employees like Booth Level Officers, Schools Teachers etc.**
- **Police staff for contact tracing and containment**
- **Other organizations** like RWAs, NGOs, community leaders, self help groups
- **Transfers or deputations** from **other states / districts**
- **Retired** HCWs and military / paramilitary personnel
- **Train non-covid health care staff**
- **Final year medical/nursing students**

Enhance skill & knowledge

Core capacity building

- **Online trainings by national medical bodies** (e.g. Webinar by AIIMS)
- Online dissemination of learnings to district facilities by **state Center of Excellence**
- **Onsite training** of staff via state level training cell
- **Expert group (specialists) to mentor COVID-19 doctors & provide advise for severe patients** (physical/remote monitoring e.g. e-ICU)

Other training resources

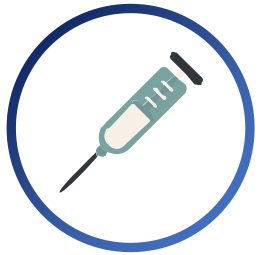
- Training algorithms shared by MoHFW
- Other MoHFW guidelines/SOPs
- Videos on MoHFW website/COVID-19 India Portal

Testing
E.g. for sampling, lab technicians, DEOs

Containment and Surveillance
E.g. for contact tracing, door to door surveillance, epidemiologists etc.

Treatment
E.g. doctors, nurses, technicians, admin staff

Vaccination: Key parameters to monitor



Coverage of vaccination in approved groups

Parameters to monitor	Targets
% HCWs partially & fully vaccinated in the district	100% coverage Ensure all the HCWs are fully vaccinated
% FLWs partially & fully vaccinated in the district	100% coverage Ensure all the FLWs are fully vaccinated
% approved age groups who received first dose	100% coverage Ensure all the approved age groups get registered and receive both the doses
approved age groups who received second dose	

Capacity utilization of vaccination centers

Parameters to monitor	Normative Benchmarks
Number of sessions planned per day	
Number of sessions conducted per day	Ensure all the planned sessions are conducted
Total number of vaccinators deployed	Ensure availability of 1 vaccinator per 120 beneficiaries
Average number of sessions conducted per vaccinator	
Average number of doses administered per vaccinator	Ensure availability of 1 vaccinator per 120 beneficiaries

Efficacy of session sites

Parameters to monitor	Normative Benchmarks
Total number of session sites per day	
Average number of sessions conducted per site	
Average capacity per session site	>100 beneficiaries
Average number of sessions conducted per site per day	1 session per day

Citizen communication: Focus areas

WHAT to communicate?

Follow preventive measures

- Physical distancing
  - Minimum 6 feet distance
  - Avoid social gatherings (weddings, religious gathering, cultural events etc)
  - Work from Home, as far as feasible
- Hand hygiene: soap, alcohol based sanitizer
- Respiratory hygiene: face covers / masks
- Immunity boosting measures by **Ministry of AYUSH**
- SOPs issued pertaining to **offices**, **hotels**, **gyms**, **shopping malls**, **restaurants**, **religious places**

De-stigmatize COVID-19

- Don't panic
- Success stories of recovered patients

Share district preparedness

- Availability of COVID-19 beds (in public domain)

Grievance redressal

HOW to communicate?

Inter-personal modes

- Front line workers (ANM/ASHA/Anganwadi)
- Community volunteers
- Local NGOs
- Resident Welfare Associations
- Office Workspace teams

Other modes

- Website
- TV Media briefings
- Media bulletin report
- Social media campaigns
- Telephonic helpline

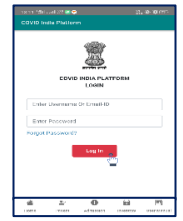
Also penalize for non-compliance of COVID-19 appropriate behavior e.g. fines for not wearing masks etc.

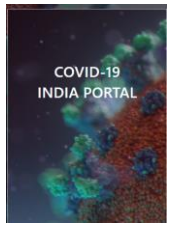
Information Management: Focus areas

Ensure 100% adoption of tech systems: No variance between line list and hotspot data

RT-PCR app & ICMR portal

- **Map all collection centers** for RT-PCR testing on covid19cc.nic.in
- **All antigen testing centers to get access to ICMR portal** by writing to ag-pvthosp-nabh@icmr.gov.in and ag-govthosp@icmr.gov.in
- **Centers to fill all details correctly** including: patient category, pre-existing medical conditions, contact number



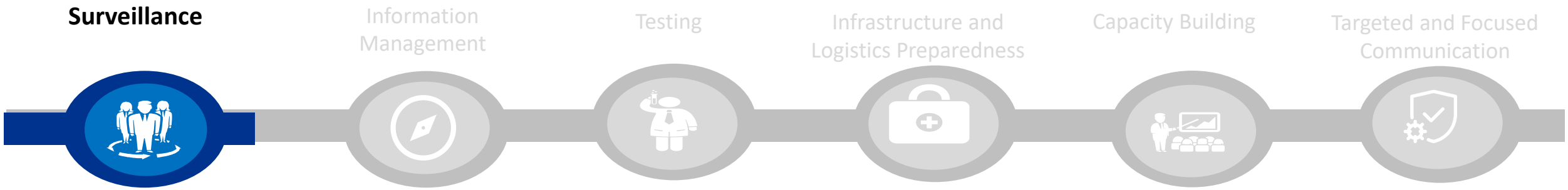


Facility app & COVID-19 India portal

- **Onboard** following on facility app:
  - All COVID-19 facilities
  - All DSOs (for home isolation patients)
- **Ensure daily update** of:
  - Patient details (clinical)
  - Inventory details (Stock and utilization)
  - Update various forms on COVID-19 Portal

Analyze District Analysis dashboards daily on Covid India Portal for data driven insights and decision making

Surveillance



APPROACH

Central Government

- **Central nodal officers** were appointed for continuous monitoring of Covid-19 situation in states
- **Central team visits** were done in the states to guide them on clinical management protocols, surveillance and testing practices
- **IDSP Portal was strengthened and trainings** were conducted for officials to fill in data related to Covid-19

States and Districts

- **17 Jan onwards: Advisory to all States for acute respiratory illness surveillance**
- **Community Surveillance**
- **Contact Tracing**
- **State & District Surveillance Officers – Incident Command System**
- **Multi agency, local surveillance teams**
- **Rapid Response Teams**

Guidelines for Localized surveillance

- **House-to-house active case search & aggressive contact-tracing and quarantine**
- **Targeted testing inside containment zones [capacity building]**
- **SARI/ILI Surveillance for early detection**
- **Predicting evolving hotspots by leveraging Arogya Setu/ITIHAS app**

Proper Information Management

Surveillance | **Information Management** | Testing | Infrastructure and Logistics Preparedness | Capacity Building | Targeted and Focused Communication

APPROACH

Integrated Knowledge Management Portal

- Covid19 portal with State and District level dashboards
- Used for real time reporting
- ICMR portal for tests

Data Analysis and situational reports for decision support

- Data Analysis and situational reports for decision support
- Flagging districts of concern to respective States for action
- Identification of district hotspots , multi criteria

Projection & Infrastructure Analysis

- Projection tools for analysis of future requirements [polynomial best fit: cases, trends etc.]
- Assessing capacity of states to respond to COVID-19 (health infrastructure, logistics, human resources)

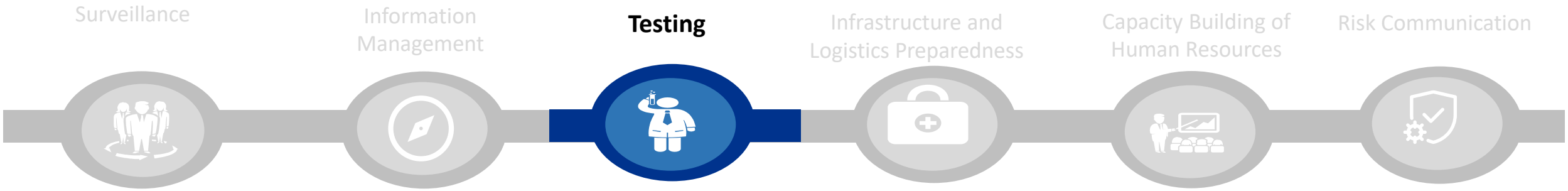
District wise Reviews and Follow-up

- Meetings with States/ Districts to review the Covid-19 status, review adherence to guidelines
- Technical support for Covid19 management : hospital preparedness, infrastructure gap assessment and case projection tools

Using Technology

Surveillance & Contact Tracing	Aarogya Setu (most downloaded app in the world) & ITIHAAS app for tracking ILI and SARI Cases
Logistics	Covid-19 India Portal for tracking Isolation beds, Personal Protection Kits, N-95 marks, diagnostic reagents
Laboratory Testing	RT-PCR app for registration & CV Analytics Portal for analytics
Hospital Preparedness	Facility App for clinical management e-Sanjeevani Telemedicine Portal (more than 64 lakh consultations) web-based National Teleconsultation Service
Risk Communication	Ministry of Health website for hosting communication material
Capacity Building	Training resources made available through online training modules on I-GoT platform, e-ICU etc
Vaccine Distribution	Co-WIN for beneficiary registration and real-time information on vaccine stocks & flows

Continued and Focused Testing



APPROACH

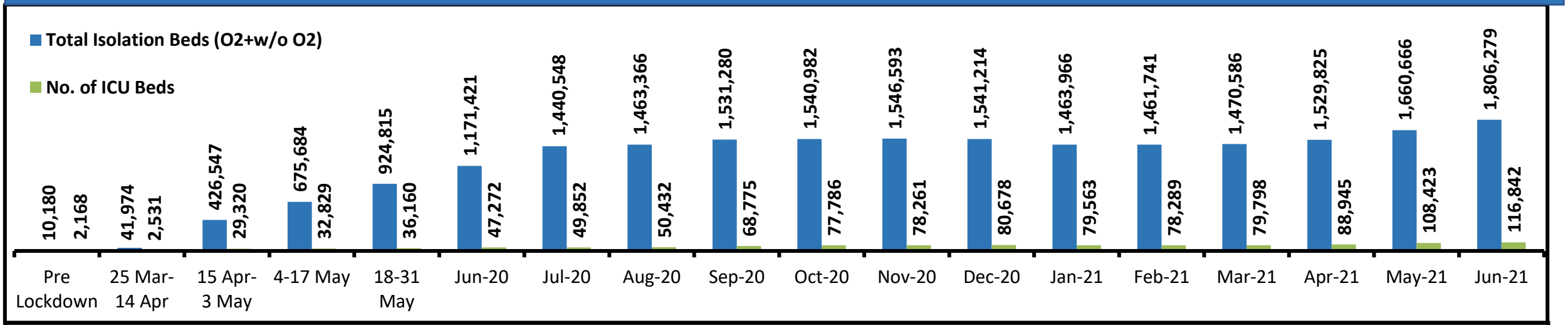
- **Rigorous testing policy & proactive community involvement**
- **Multifold Testing growth** (Approx. 2,661 testing facilities in the country)
- **Changed testing guidelines** for second wave:
  - RTPCR to not be repeated if tested positive by RTPCR/RAT
  - No testing required for COVID recovered individuals at the time of hospital discharge
  - RAT recommended for containment zones,health care settings
  - No need for RTPCR in healthy individuals undertaking inter-state domestic travel
- **New tests such as dry swab, self-testing kits also introduced**
- **CBNAAT and Tru NAAT , mobile testing labs**

Infrastructure & Logistics Preparedness

(As on 21st June '21)

Surveillance | Information Management | Testing | **Infrastructure and Logistics Preparedness** | Capacity Building of Human Resources | Targeted and Focused Communication

APPROACH



- **Increase of 177 times in isolation beds** (with/without oxygen) and **54 times in ICU beds.**
- **Field hospitals dedicated to Covid care** set up by **DRDO/CSIR/ Other agencies** to increase capacities

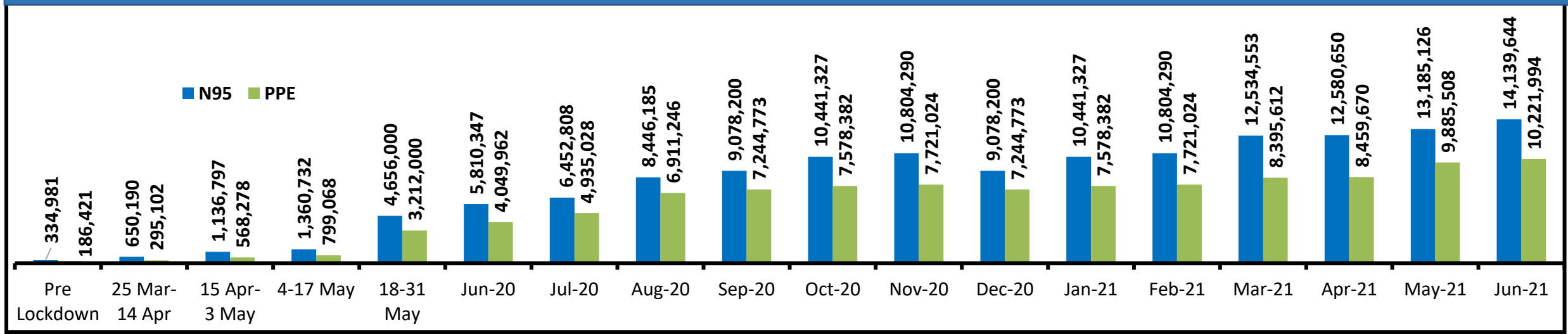
Note: The number of beds are only for dedicated Covid Facilities

Infrastructure & Logistics Preparedness

(As on 21st June '21)

Surveillance | Information Management | Testing | **Infrastructure and Logistics Preparedness** | Capacity Building of Human Resources | Targeted and Focused Communication

APPROACH



- Availability of **N-95 masks increased to more than 14 million**
- Availability of **PPEs increased to more than 10 million.**
- From no manufacturers in Mar 2020, **1,100 indigenous manufacturers** of PPE kits developed.

Note: The number of beds are only for dedicated Covid Facilities

Capacity Building of Human Resources

Surveillance | Information Management | Testing | Infrastructure and Logistics Preparedness | **Capacity Building of Human Resources** | Targeted and Focused Communication

APPROACH

Capacity Building for Healthcare Personnel

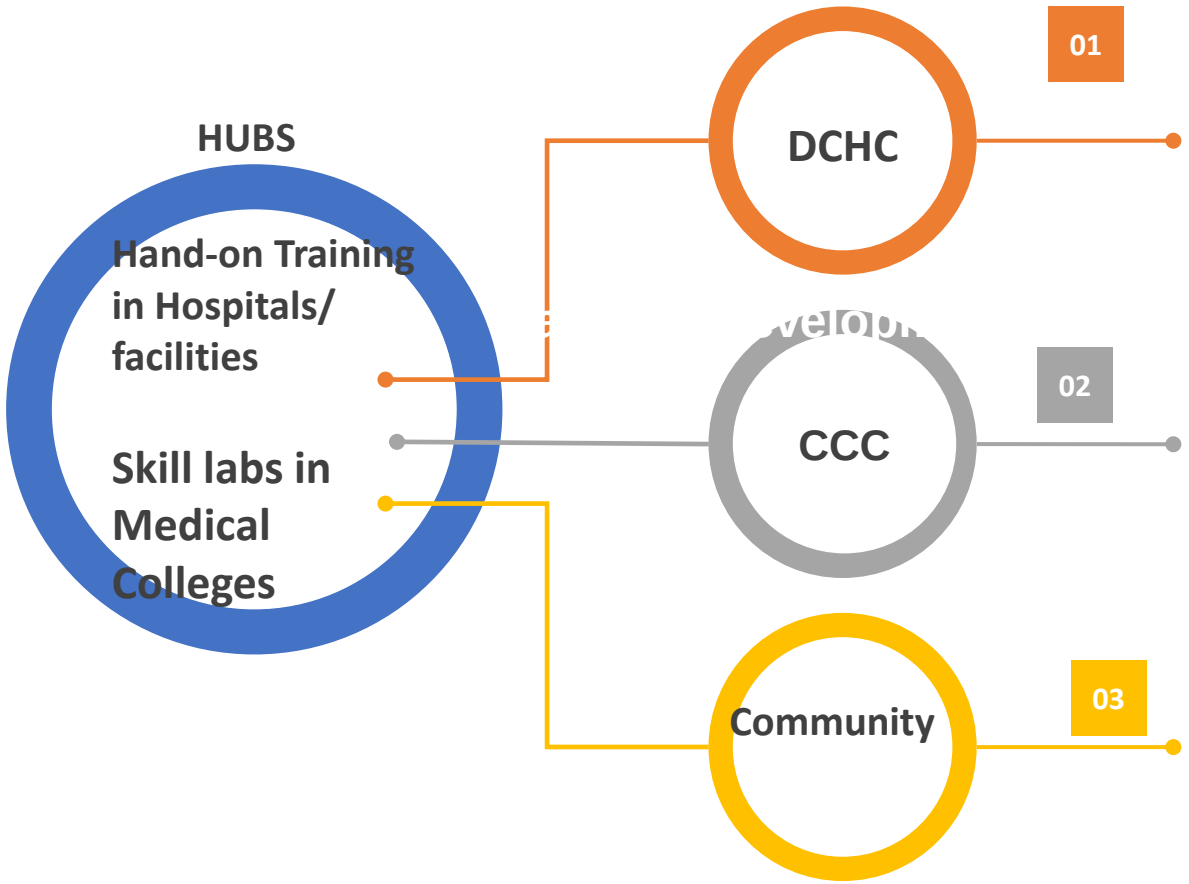
- **Online training modules** on I-GoT platform for **1.6 crore strong army of COVID warriors**
- **26 topics, 48 under preparation**
- **COVID warriors** given **iGOT certification**
- **Mock Drills** for Corona preparedness in all hospitals across country
- **Orientation** on MoHFW guidelines
- **Training Videos** on MoHFW website/COVID-19 India Portal

Centers of Excellence to Guide Clinical Management

- Efforts to build capacities of all healthcare facilities across the country through **Center of Excellence (CoE) Initiative** under aegis of **AIIMS Delhi**
- **Series of Webinars (more than 30)** held with **Regional and State CoEs** for **knowledge exchange**
- **Capacity building for all Govt & Private facilities** in coordination with **Regional and State CoEs**
- CoE webinars archived on **AIIMS YouTube Channel**

Capacity Development: Hub and Spoke model

HANDS ON LEARNING → BLENDED LEARNING ← ONLINE LEARNING



DEDICATED COVID HEALTH CENTRES :
Management of moderate patients needing oxygen supplementation and COVID medications, mandates availability of trained workforce to watchout for any deteriorating conditions.

COVID CARE CENTRES:
Decentralisation of the CCC in the rural areas and similar structures in urban and peri-urban areas to also manage and monitor mildly symptomatic and home/facility isolated patients. Mandates equipping them with trained and competent workforce to screen/ identify and escalate/ refer as per requirement.

COMMUNITY:
On field workforce including community health officers(CHO), Public Health Nurses, ANMs, ASHAs and Anganwadi (AWW) need to be fully equipped with knowledge and information for timely screening and identification of cases needing facility support .

Targeted and Focused Communication

Surveillance | Information Management | Laboratory testing | Infrastructure and Logistics Preparedness | Capacity Building | **Target and Focused Communication**

APPROACH

Widespread Campaigning of Do's and Don'ts through SMSs

- **5.50+ billion SMSs**
- **Caller-tune messages** to 1.17 bn. subscribers in 13 Languages
- **De-stigmatization**

Guidelines/SOPs/ Advisories

- Approx 400 guidelines issued , including Clinical Management Protocols

Guidelines on Measures to contain COVID-19 & leverage community engagement

- **SOPs** pertaining to **offices**, **hotels**, **restaurants**, **religious places** etc
- **SOP** for COVID-19 Containment & Mgmt in Peri-urban, Rural & Tribal areas

Grievance Redressal & Realtime Emergency Support

- **60 lakh calls** received by Centre & **1.30 Cr** forwarded to States through **1075**
- **24x7 National Control Room for Emergency Support & 104 Helpline** used by States

Inter-personal communication through Outreach Services

- Front line workers (ANM/ ASHA)
- Community volunteers
- Local NGOs

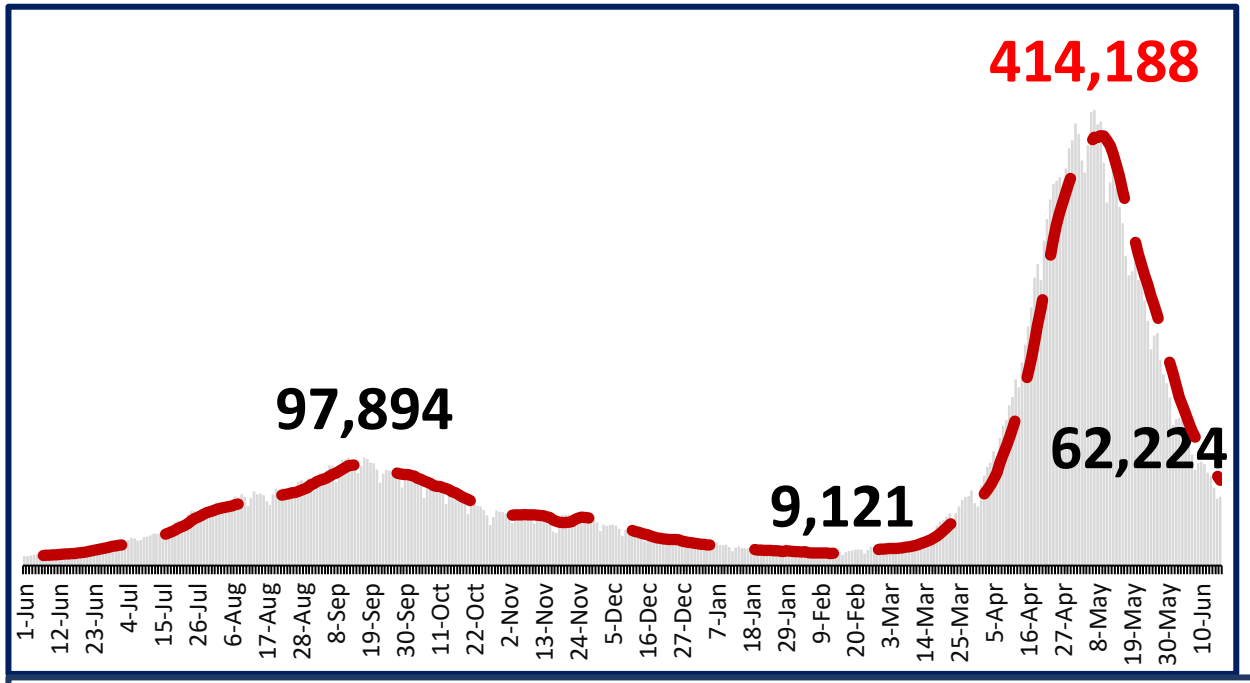
Media Discourse to counter fake news

- Social media campaigns & media discourse to counter negative news
- Evidence based studies presented by panel of experts against fake news

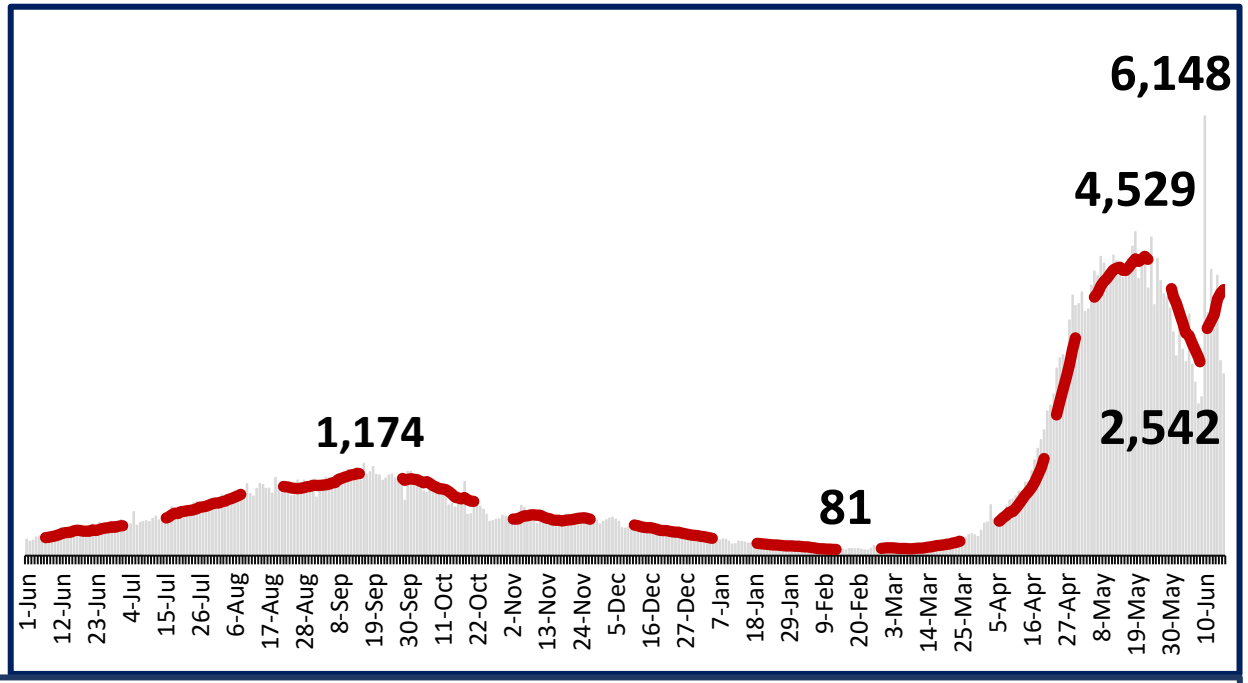
Thank You

Comparison of first and second waves

Daily New Cases continue to fall



High number of daily new deaths in the second wave



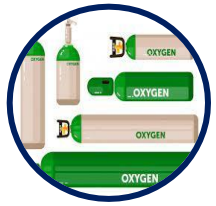
- India witnessed **2nd peak 4.2 times higher than the 1st peak for cases**, and **5.2 times for deaths**
- Graded, cautious reopening of activities, coupled with stringent enforcement of COVID-Appropriate behavior & effective containment strategy is critical to avoid another resurgence

Proactive, pre-emptive and graded response

Tackling any future wave of the Covid-19 pandemic

Remedial Measures to tackle the second wave

- Accelerating vaccination pace by augmenting production and ensuring proper distribution channels
- Issued revised guidelines for National COVID-19 Vaccination Programme



- Ensuring oxygen supplies to States
- Procurement of Oxygen Cylinders and Concentrators

- Established INSACOG in December 2020 To monitor the genomic variations in the SARS-CoV-2
- 10 national labs- now 28

Remedial Measures to tackle the upcoming challenges

- Building new partnerships
- Leveraging the strength of communities

- Ensure sufficient stock of drugs being used in Covid-19 at all facilities

- Formulation & Implementation of District Action Plans
- Issued normative framework for graded relaxations

Logistics: Ventilators, PSA Plants, Oxygen Concentrators & Cylinders

Ventilator Status	
Ordered	60,858 (March-April 2020)
Make in India	58,850
Allocated	56,043*
Dispatched	47,368
Delivered	46,931
Installed	41,754

**Includes 18,154 allocated after 6th April 2021*

Oxygen Concentrators Status	
5-LPM	35,337
10-LPM	64,663
TOTAL	**100,000**

Oxygen Concentrators - Allocation	
CHC	Two to four 10-LPM
PHCs / PHC–HWCs	Two to three 5/10 LPM
SHCs / SHC–HWCs	One to two 5-LPM

Oxygen Cylinders being procured	
CMSS	1,27,000*
DRDO (SPO2 System Cylinders under PM-CARES)	1,50,000

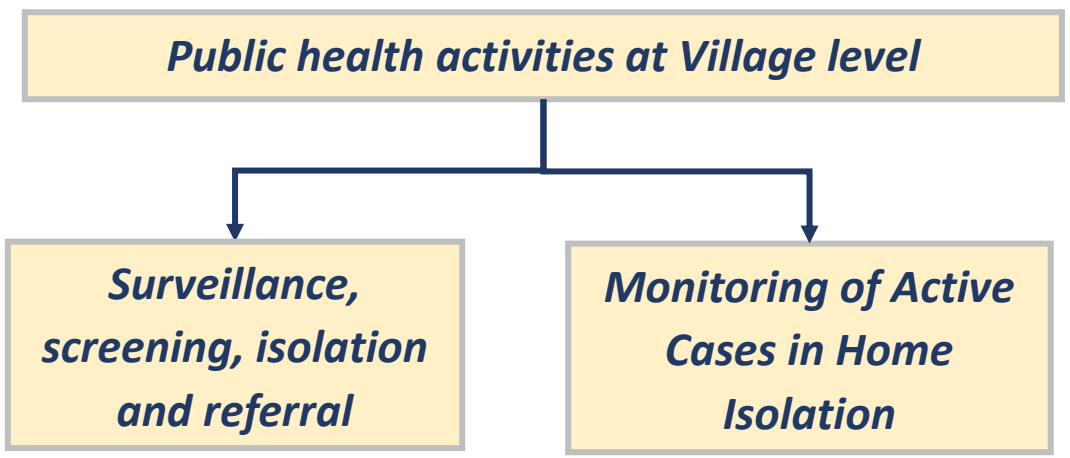
**21,508 delivered, rest to be delivered by 31st August 2021*

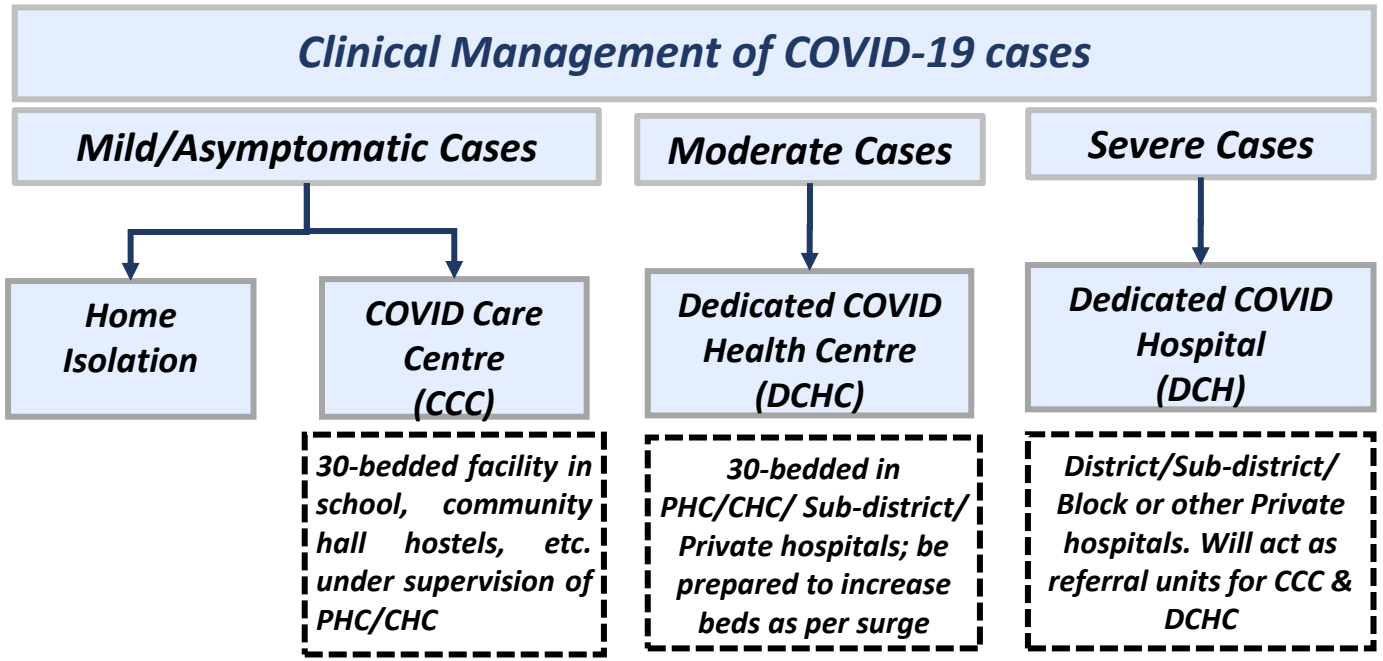
PSA Plants under PM CARES						
	Existing PSA Plants	Additional PSA Plants				**TOTAL**
		500 DRDO	551 MoHFW			
	CMSS Phase 1	DRDO	DRDO	HITES	CMSS	
Total	**156**	**500**	**366**	**179**	**21**	**1222**

	Additional Sources					Total PSA Plants
PM Cares PSA Plants	MoPNG	Ministry of Coal	Ministry of Power	Foreign Aid	Total	PM Cares + Additional Sources
1222	**108**	**40**	**25**	**57**	**230**	**1452**

Guidelines for Peri-urban, Rural & Tribal areas, and for pediatric cases

- **Covid-19 cases are now being** seen in peri-urban, rural and tribal areas as well
- It is important to ensure primary care & block level health infrastructure in these areas is redesigned and oriented to manage the situation





Although there has been no increase in positivity of Covid-19 in children and adolescents when two Covid-19 waves are compared, it is important to exercise caution keeping in view that no vaccine is currently available for this age group. Hence, **Ministry has released guidelines on "Operationalization of CoVID care services for children and adolescents"** on 14th June 2021.

Continued efforts to coordinate Public Health Response with State Governments Rural and Urban local bodies

Reconstitution of 6 empowered groups into 10 to tackle Covid-19 crisis

The 10 Empowered Groups are:

1. Emergency Management Plan and Strategy
2. Emergency Response Capabilities
3. Augmenting Human Resources and Capacity Building
4. Medical Oxygen
5. Vaccination
6. Testing
7. Partnerships with NGOs, private sector and international organisations
8. Information, Communication and Public Engagement
9. Economic and welfare measures
10. Pandemic response and coordination

Facilitation Center setup in existing Emergency Operations Center in Ministry of Health

- **Collate information** obtained from different portals of MoHFW and from different Ministries
- **Receive feedback** from the states about information provided
- **Highlight the issues pertaining to policy and systemic refinement** to the concerned divisions of MoHFW, who would then resolve these issues with the states though Video Conferences

Involvement with key stakeholders such as Panchayati Raj Institutions

Template of District Action Plan to prevent Infection Spread

Elements of the District Action Plan

1. Mapping of Cases

- *Surveillance*
- *Focused Testing*

2. Reviewing ward/ block wise indicators

- *Positivity Rate*
- *Rate of growth of cases*
- *Case fatality*
- *RT-PCR:RAT Ratio*

3. 24x7 Emergency Operations Center

- *Contact tracing and follow up*
- *Test deployment*
- *Surveillance teams monitoring*
- *Logistics: beds, ambulances, personnel, etc*

4. Incident Command System

- *Area Specific Rapid Response Teams*
- *Timely sharing of information*

5. Implementation of Containment Zones

- *Compliance with the SOPs*
- *Surveillance teams to be trained*
- *Daily monitoring of clustering of cases*
- *Number of households/CZ*
- *Cases coming from within/ outside CZ*
- *Strict perimeter control*

District Level: Granular Framework for Graded Response

Strategies: Individual Actions + Public Health Measures

- Action at field may be warranted across the district or even at sub district level.
- Objective, transparent and epidemiologically sound decision making:

Parameters	*Thresholds*
Case positivity	***Case positivity of more than 10% or more in last one week***
OR	
Bed occupancy	***Bed occupancy of more than 60% on either oxygen supported or ICU beds***

1. Containment
2. Testing and surveillance
3. Clinical management

Evidence based decision followed by: Strategic areas of intervention

4. Vaccination
5. Community engagement

Testing – Priority Areas communicated to States

(4th May)

- **Improving access and availability** of testing:
  - **RAT** to be **allowed at all** Govt. and private **facilities**
  - Setting up **24X7 RAT booths** at multiple locations such as **healthcare facilities, RWA centres, schools, colleges, and other available vacant spaces**
  - **Drive-through RAT testing** facilities may be created at convenient locations
- **Optimizing RT PCR Testing:**
  - **RT PCR must not be repeated** in any individual who has **tested positive once**
  - **No testing** is required for **COVID-19 recovered patients** in accordance with the **discharge policy**
  - **Requirement of RTPCR testing** for healthy individuals taking **inter-state travel may be removed**
- **RAT testing** must be **in compliance with ICMR advisory**
- **All symptomatic RAT negative** individuals to be **retested with RTPCR**

Intensive Action & Local Containment – Priority Areas for States

- Instructions under **Disaster Management Act** requesting States to identify **Districts Of Concern** wherein: *(29th Apr)*
  - **Case positivity is 10% or more** in the **last one week**
  - **Bed occupancy** is **more than 60%** on **either oxygen supported or ICU beds**
  - A **state-level Nodal officer** to be appointed for such districts to be **stationed** in these districts for **14 days**
- **Local containment** is primarily focused on **restricting intermingling of people** for a **period of 14 days**
- **Specific and well-defined geographical units** such as **cities/towns/parts of towns/ district headquarters/ semi urban localities/ municipal wards/ Panchayat** areas etc. are identified for local containment based on **cluster of cases**
- The **classification of the districts** requiring intensive action may be **undertaken by the State on a weekly basis** and be also **made available online**
- **District Collector/Municipal Commissioner** to undertake **daily status review** to analyze case trajectory, day-to-day operational planning and implementation of various activities
- **Daily Status Report** to be submitted to **State government by District** and **consolidated report at the state level** to be shared with **Government of India** for information
- District Toolkit for effective Implementation of "Test-Track-Treat and Vaccinate" and Preparation of **District Action Plan** with clear timelines and responsibilities

Hospital Infrastructure Strengthening – Priority Areas for States

- **Preparation of Comprehensive Plan for Augmentation** *(20th Apr)*
- **Create make-shift/field hospitals** based on the **case trajectory & projections**
- **Use of Railway Coaches** for management of mild cases: availability of 3,816 such coaches, across 16 Zones of Railways
- **Central Ministries/Departments and PSUs** to consider using their **CSR funds** to facilitate setting up **makeshift hospitals and temporary COVID care facilities** in consultation with States *(22nd Apr)*
- States to **co-ordinate with Private industries for utilizing CSR funds**, as outlined by Ministry of Corporate Affairs, for creation of **health infrastructure, establishment of medical O2 plants, manufacturing and supply of O2 concentrators, ventilators**, etc
- **Healthcare facilities run by cooperatives to create facilities for COVID patients,** proposal by **National Cooperative Development Corporation (NCDC),** a statutory corporation under Ministry of Agriculture and Farmer's Welfare
- Hospitals under the control of **Central departments/PSUs to set-up exclusive dedicated hospitals or separate blocks within the hospitals** *(23rd Apr)*
- **Vacant government buildings** can be converted to **temporary COVID Care facilities**

Facilitation Center in existing Emergency Operations Center in MoHFW

Responsibilities:

- **Collate information** obtained from different portals of MoHFW and from different Divisions
- **Record the calls and receive feedback** from the states about information provided
- **Highlight the issues pertaining to policy and systemic refinement** to the concerned divisions of MoHFW, who would then resolve these issues with the states though Video Conferences

Functioning:

- **Divisions/partner organizations** will designate a nodal officer to provide information to the Centre
- All the **orders/ guidelines/ protocols/ allocations** etc. **issued by the Divisions/ partner organizati**ons will be communicated to the **Facilitation Center**
- **States to indicate** an identified **nodal officer** who would **call the facilitation center to seek services**
- Facilitation centre will coordinate **with DRDO, DPIT, CSIR, ICMR, Niti Aayog**, etc. in addressing issues

Take calls/online queries from states and facilitate in:

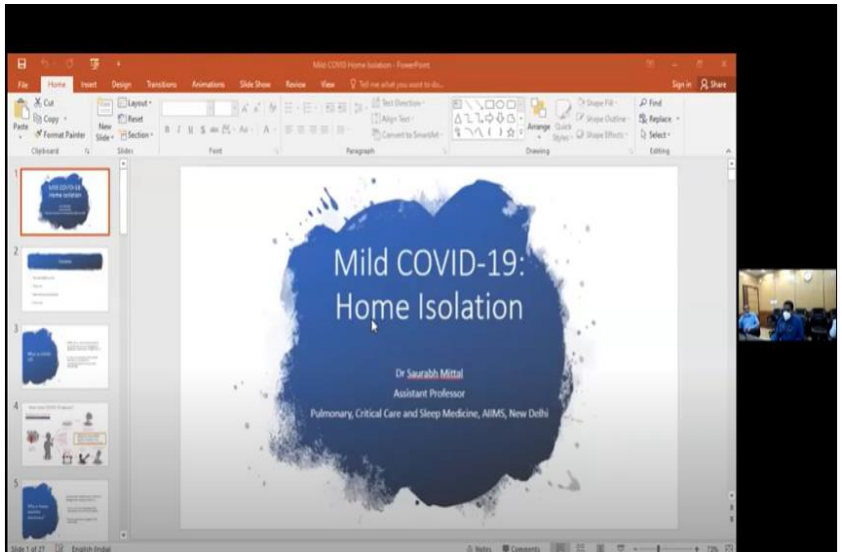
- Availability of Equipment and pricing options
- Allocation of drugs
- Bed capacity augmentation
- Private sector engagement by states
- Makeshift hospitals developed by various organizations
- Latest technologies available with various organizations such as DRDO
- Latest guidelines issued by Dept of Health and Family Welfare
- Treatment protocols issued
- Human resource matters

Focus on Human Resource Augmentation

(3rd May)

- **NEET-PG exam being postponed** for at least 4 months and not to be held before 31st August 2021
  - Students will be **given 1 month of time** after announcement of exams before being conducted
  - This will make large number of qualified doctors available for COVID duties
- **Deployment of medical interns** in COVID duties under the **supervision of their faculties as part of internship**
- Services of **final year MBBS students to be utilized** for providing services like **Teleconsultation and monitoring of mild COVID cases**
- **Services of B.Sc./GNM qualified nurses** to be utilized **in full-time COVID nursing duties** under the **supervision of senior doctors and nurses**
- **Services of allied health professionals** to be utilized in COVID management based on **their training and certification**

Efforts to build capacities of all healthcare facilities across the country



- **Center of Excellence (CoE) Initiative** under the aegis of **AIIMS Delhi**
- **Series of Webinars are** held with **Regional and State CoEs** for **knowledge exchange**
- States to plan **capacity building and knowledge transfer** to **all Govt and Private facilities in their respective states in coordination with** Regional and State CoEs
- CoE webinars archived on **AIIMS YouTube Channel**: https://www.youtube.com/c/Telemedicine_AIIMS_ND/videos

With rational use, significant reduction in demand can be achieved

Revised 'Guidelines for rational use of oxygen for Covid-19 management' prepared and disseminated to States/UTs and reiterated from time to time. *(24th Apr)*

- **Oxygen Monitoring Committee** in every hospital consisting of Additional MS, Head of Anaesthesia, Respiratory Medicine/Internal Medicine and Nursing Superintendent
- **Preferring non-invasive ventilation** rather than high-flow nasal oxygen
- **Monitoring team round the clock** (one duty nurse and one duty technician) to ensure proper closure of valve during no-use and no-leakage
- **Target SpO_2 92%-94%** for the hospitalized patients; once this rate is achieved, flow of oxygen not to be increased as no additional benefit to the patient.
- **Oxygen consumption audit** in hospitals including private hospitals.
- **Restraint on private health facilities** pushing oxygen cylinders as part of COVID-19 home care packages.

Use of Industrial grade oxygen in medical setting & follow up of Best Practices

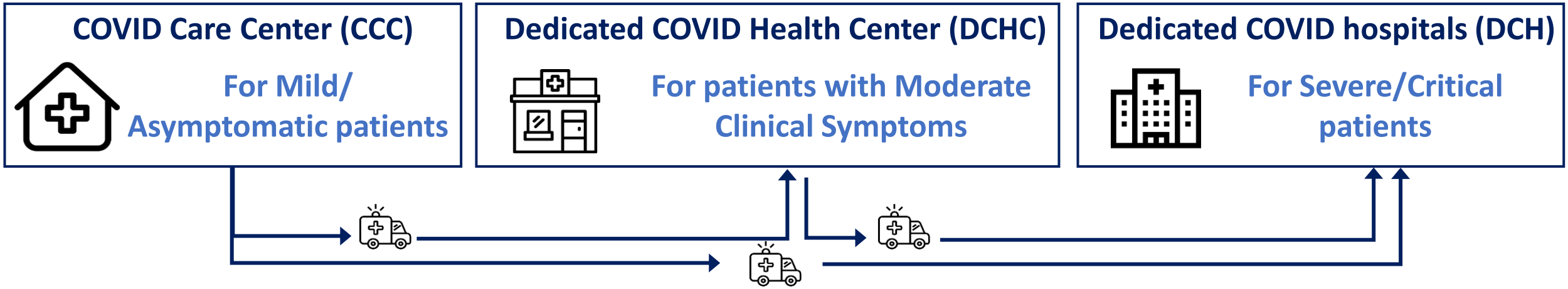
(29th Apr)

- **Expert Committee recommended** use of **Industrial grade oxygen** produced by refineries/other industrial units with 90-92% oxygen for **medical use**
- **States** accordingly **advised** to **explore setting up of field/make-shift hospitals** near such establishments
- **Dashboard** to include health-facility wise real-time data on available infrastructure, beds & actual oxygen consumption. Regular updation of the Dashboard.
- **Stoppage of all elective surgeries.** Surprise checks of hospitals to ensure this.
- Effective management and close monitoring of **logistics of tanker movement** from dispatch to recipient hospitals. Use of IoT, GPS and other IT based tools to track each tanker.
- Enough number of geographically distributed **emergency reserve storage** points - managed by senior officers to supply oxygen to a hospital in case of SOS. Wide dissemination of contact numbers, names and designations of these officers.

PSA Plants and Oxygen Cylinders

- **Pressure Swing Adsorption(PSA): 162 PSA plants** are being installed. 102 have been delivered out of which 74 have been installed and gas generation begun in 62. A total of 109 will be installed by May end
- GoI has **sanctioned additional 1051 PSA plants** to be done by different agencies such as DRDO/CSIR and HITES. The site preparation of these plants will be assisted centrally by agencies such as NHAI and CPWD.
- All these plants will be completed within a **period of three months**. Of these, 849 are being done by DRDO/CSIR, 181 by HITES and 21 by CMSS.
- **Last year 1,02,400 oxygen cylinders were procured and distributed to States**. This year, orders for 1,27000 oxygen cylinders (D type Jumbo and B type small) have been placed and delivery to States started. 31,800 out of these will be distributed in May itself.

Focus on peri-urban and rural areas for COVID Mgmt- SOP being issued



COVID Care Center

Plan a minimum of 30 bed COVID Care Centre (CCC)

Augmentation of COVID Dedicated Facilities

- Convert schools, community & marriage hall, panchayat buildings, or tentage facilities in Panchayat land, etc.)
- Only for cases that have been clinically assigned as mild cases
- Referral linkage to be established with either DCHC or DCH
- Work under the overall guidance of the local PHC/Health and Wellness Centre
- ANMs/Multipurpose Health Worker (Male)/ASHA/ Anganwadi Worker shall be the nodal person
- Village Health, Nutrition and Sanitation Committee (VHNSC) will be responsible for the upkeep of CCCs
- AYUSH doctors/ Final year AYUSH students/ Final year BSc nurses may be considered to run the CCCs
- Volunteers, selected by VHNSC to be trained in basics of COVID management

Management of COVID in peri-urban and rural areas

Dedicated COVID Health Center (DCHC)

Plan a minimum of 30 bed Dedicated COVID Health Centre (DCHC)

- For cases clinically assigned as moderate, assured Oxygen support and mapped with one or more DCH
- Infrastructure shall be redesigned to function as DCHC, while retaining non-COVID essential services
  - OPD: Separate entry/exit, Screening area, Segregation of ARI & non-ARI patients, separate pharmacy
  - IPD: No intermixing of suspect and confirmed cases with separate toilets, dining and changing rooms with signages; adequate natural room ventilation; beds placed at least 1 meter apart
- Clinical Management protocol to be followed based on the availability of Specialist /regular MBBS doctors

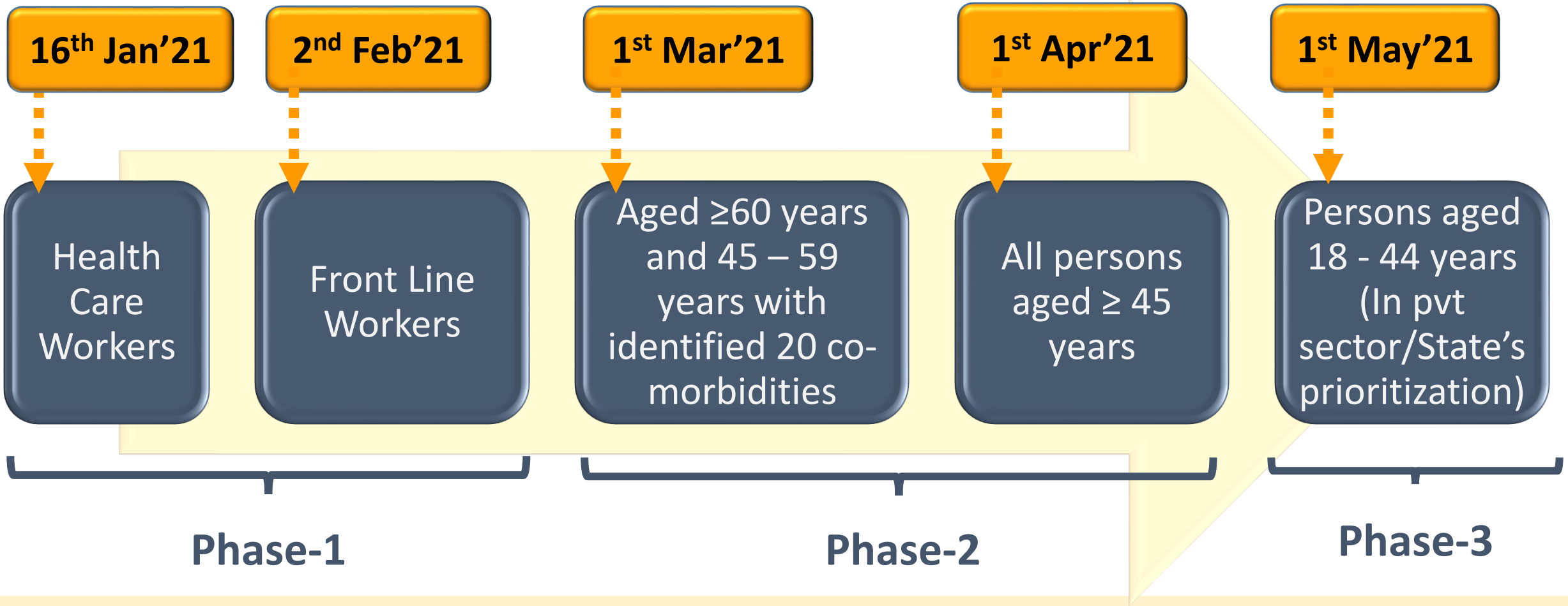
Dedicated COVID Hospitals (DCH)

Conversion of District/Block hospital or other identified private hospital as DCH

Public Health Activities in rural or peri-urban areas

- PHC/CHC lying within or close to a containment/buffer zone shall be actively involved in containment operations
- Train and re-train all PHC/CHC and field level (including ASHAs, ANMs, MPWs etc.) for Covid Management
- Medical officers in these facilities will also follow with recovered patients for post-COVID complications
- Estimate requirement of logistics & provide field-based teams to work with Rapid Response Teams (RRTs)
- Facilitate contact tracing of confirmed COVID cases along with supervisors & surveillance team & share data

COVID-19 Vaccine Prioritization - India



Goal is to protect the healthcare & pandemic response system and reduce COVID-19 mortality