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# COVID-19

## Containment Measures

Meeting with States and Districts

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# Hotspots- Clusters and Large Outbreaks

- **Large Outbreak**

- Localized increase in the incidence of COVID-19 cases occurring within a defined geographic area e.g., in a village, town, or city.
- Cases may not be epidemiologically linked
- More than 15 cases
- Implies progression of a small cluster or evolution of multiple clusters

- **Cluster**

- Less than 15 cases in a limited area
- Cases are epidemiologically linked

# Hotspots (Red zone)

**Hotspots (Red zones)** – to focus attention on districts/cities reporting large number of cases/high growth rate

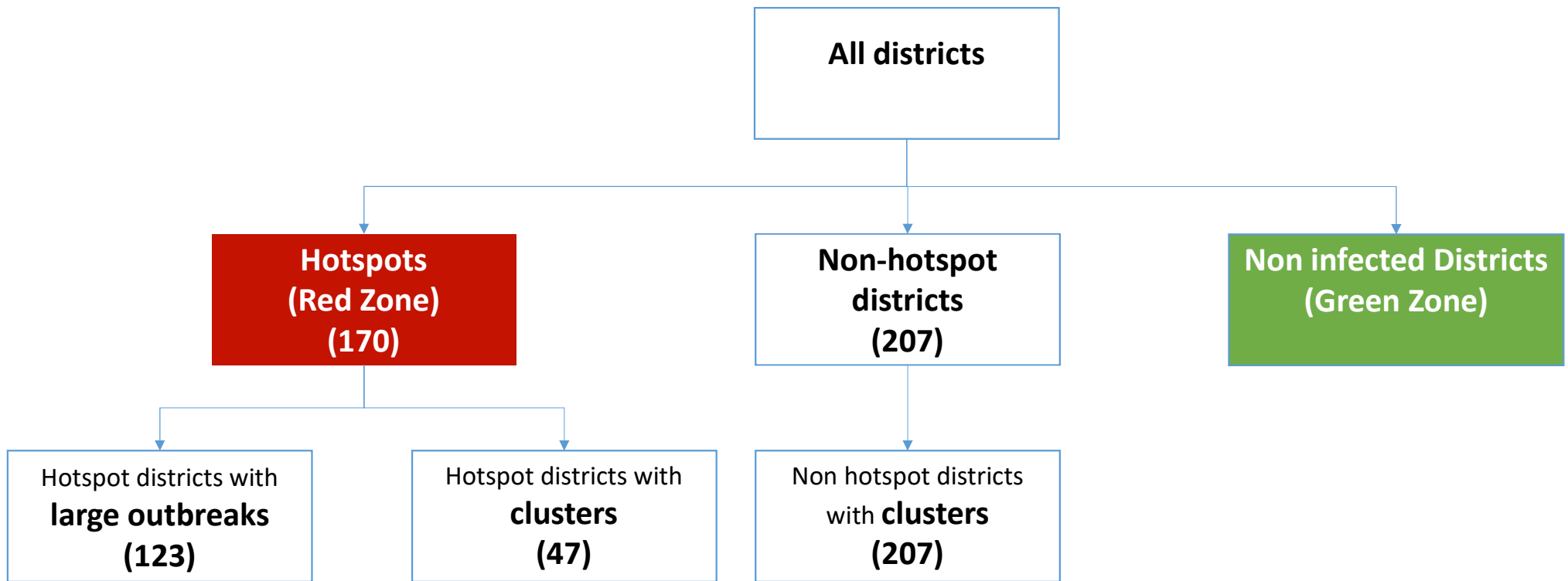
- **Inclusion Criteria**

- Highest case load districts contributing to **more than 80% of cases in India or**
- Highest case load districts contributing to **more than 80% of cases for each state in India or**
- Districts with doubling rate less than 4 days (calculated every Monday for last 7 days, **to be determined by the state government**)

- **Exclusion criteria**

- No new confirmed cases for last 28 days (**Green zone**)

# Current Status (as of 14<sup>th</sup> April 2020)



*A district currently in **hotspots** can move to **green category** if no new cases arise in 28 days*

# Strategic Approach for Containment

- Defining area of operation and applying perimeter control
- Active search of cases, early isolation, contact listing and tracking, quarantine and follow up of contacts
- Testing all suspect cases, symptomatic contacts, asymptomatic direct and high-risk contacts of a confirmed case and SARI cases
- Clinical management based on risk profile
- Social distancing measures
- Administer HCQ in healthcare workers and contacts
- Create awareness on hand hygiene, respiratory etiquettes and sanitation

# Defining Area of Operation

## Clusters

- Geographic area mapped for cases & contacts for defining the area of operation
- If data for mapping is not readily available in:
  - **Rural areas:** 3 km radius of containment zone and additional 7 km radius of buffer zone
  - **Urban areas:** Administrative boundaries of residential colony and a buffer zone of additional 5 km radius

## Large Outbreak

- Geographic area mapped for cases & contacts for defining the area of operation
- If data for mapping is not readily available in:
  - **Rural areas: Block/Sub district/district** population with buffer zone of all neighboring block/sub district/district
  - **Urban areas:**
    - Containment Zone: Entire population of towns and for large cities, zones/districts from where cases are reported
    - Buffer Zone: Neighboring urban/rural districts

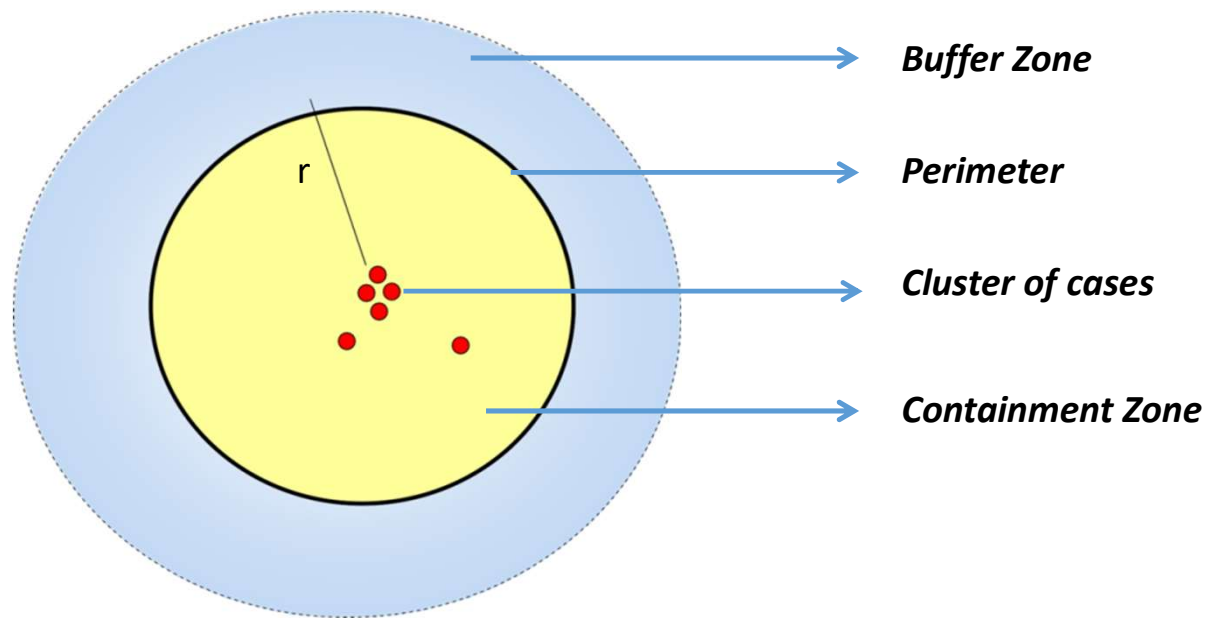
**The area should be appropriately defined by the district administration/local urban body with technical inputs at local level & it would be appropriate to err on the higher side**

# Applying Perimeter Control

- Perimeter of mapped cluster, facilitated by existing geographic boundaries - like roads , rivers, etc.
- Establish clear entry and exit points.
- Only 1 or 2 arterial roads into containment zone will be kept open for essential services
- All roads connecting the containment zone will be guarded by police/ volunteers.
- No unchecked outward movement except for essential services
- No unchecked influx of population into the containment zone
- All vehicular movement, public transport and personnel movement will be restricted
  - Details of people moving out of perimeter will be recorded & followed up with IDSP

**The perimeter control operations for the clusters & large outbreaks remain the same except for the enhanced scale of arrangements for large outbreaks**

# Buffer and Containment Zone



**A containment operation (large outbreak or cluster) is deemed to be over 28 days from the date the last case in the district tests negative**



# Activities in Buffer and Containment Zone

## Containment Zone

- Defined area around epicenter
- Perimeter control
- Active search for cases
- Testing of all cases as per sampling guidelines

## Buffer Zone

- Defined area around the containment zone
- No perimeter control
- No active search for cases
  - ILI/SARI cases report to health institutions falling in the buffer zone
- Testing of ILI/SARI cases reporting to health institutions falling in the buffer zone

**The buffer zone is an area where new cases are more likely to appear**

**Thus, the health institutions, including private institutions, should be aware of the signs & symptoms**

# Surveillance & Testing

## Surveillance

- Active case search through house-to-house visit
- 1 designated health worker to visit on an average 50 households
  - ASHAs, Aaganwadi workers and ANMs
  - Additional workforce from Red Cross, NSS, NYK, & Ayush students
- Questionnaire regarding signs, symptoms, & travel
- Listing of contacts and their tracking
- Inform supervisory officers of cases detected and contacts listed
- Daily collection, collation, and analysis of data

## Testing

- All symptomatic individuals who have undertaken international travel in the last 14 days
- All symptomatic contacts of lab confirmed cases
- All symptomatic health care workers
- All patients with SARI (fever and cough and/or shortness of breath)
- Asymptomatic direct and high-risk contacts of a confirmed case should be tested once between day 5 and day 14 of coming in his/her contact

**The surveillance and testing activity remains the same for clusters and large outbreaks**

### **For large outbreaks**

- For active case search & contact tracing will require large compliment of workforce deployment
- Large number of samples will require testing

# Other Focus Areas

## Institutional Care

- All cases would be admitted to – COVID Care Center, COVID health Center or COVID hospital – depending upon clinical profile
- All contacts will be kept in home quarantine except for high risk contacts who would be kept in institutional quarantine
- Cases would be managed as per clinical management protocol

## Pharmaceutical Interventions

- Administer HCQ to health care workers in field & those in hospitals
- Severe cases should be treated with HCQ in the prescribed dose

## Non-pharmaceutical Interventions

- Physical distancing measures, including staying at home
- Closure of schools & other establishments, except for emergency and essential services
- Public health measures (hand washing & cough etiquettes)
- Ban on public gathering
- Cancellation of public transport

# Other Focus Areas

## Human Resource

- Trained health workforce for surveillance – ANM, AASHA, Anganwadi, NSS, Red Cross, Ayush students and NYK Volunteers
- Trained supervisory field staff – PHC, Ayush and CHC doctors
- For COVID Care Center – Ayush doctors
- For COVID Health Center – PHC doctors
- For COVID Hospitals – staff drawn from medical college/private hospitals (district-wise trained manpower made available on dashboard)
- All training material made available on IGOT platform

## Material Resource

- Personal protection of health workforce is of prime importance
- Sufficient stock of PPEs/N95 masks etc to be made available in the districts in accordance with guidance on rational use of PPEs

## Risk Communication

- Awareness to be created through mass communication modalities and through inter-personal communication at the time of house-to-house visit of healthcare workers

# Cluster Containment in Non-hotspot Districts

- 207 districts have reported cases and could be a potential hotspot.
- Preemptive action for cluster containment is to be initiated in all these districts.
- Clear delineation of containment zone and buffer zone to be done.
- Contact tracing and surveillance to be initiated.
- Laboratory testing as per protocol.
- Clinical management of positive cases to be undertaken
- Effective community engagement to be ensured

# Action for Non-infected Districts

- 353 districts are yet not affected
- These districts needs to be under enhanced surveillance for ILI and SARI
- ILI and SARI cases in Facilities to be tested
- Preparation for dedicated COVID Care Centres, COVID Health Centre and COVID hospitals
- Health professionals training to be undertaken
- Effective community engagement for awareness creation

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# APPENDIX

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# Hotspots with large outbreaks (1/3)

State	District
Andhra Pradesh	Kurnool
	Guntur
	Spsr Nellore
	Prakasam
	Krishna
	Y.S.R.
	West Godavari
	Chittoor
	Visakhapatanam
	East Godavari
Anantapur	
Bihar	Siwan
Chandigarh	Chandigarh
Chhattisgarh	Korba
Delhi	South
	South East
	Shahdara
	West
	North
	Central
	New Delhi
	East
South West	

State	District
Gujarat	Ahmadabad
	Vadodara
	Surat
	Bhavnagar
	Rajkot
Haryana	Nuh
	Gurugram
	Palwal
	Faridabad
Jammu And Kashmir	Srinagar
	Bandipora
	Baramulla
	Jammu
	Udhampur
	Kupwara
Karnataka	Bengaluru Urban
	Mysuru
	Belagavi
Kerala	Kasaragod
	Kannur
	Ernakulam
	Malappuram
	Thiruvananthapuram
	Pathanamthitta



## Hotspots with large outbreaks (2/3)

State	District
Madhya Pradesh	Indore
	Bhopal
	Khargone
	Ujjain
	Hoshangabad
Maharashtra	Mumbai
	Pune
	Thane
	Nagpur
	Sangli
	Ahmednagar
	Yavatmal
	Aurangabad
	Buldhana
	Mumbai Suburban
Nashik	
Odisha	Khordha
Punjab	S.A.S Nagar
	Shahid Bhagat Singh Nagar
	Jalandhar
	Pathankot

State	District
Rajasthan	Jaipur
	Tonk
	Jodhpur
	Banswara
	Kota
	Jhunjhunu
	Jaisalmer
	Bhilwara
	Bikaner
	Jhalawar
Bharatpur	
Tamil Nadu	Chennai
	Tiruchirappalli
	Coimbatore
	Tirunelveli
	Erode
	Vellore
	Dindigul
	Villupuram
	Tiruppur
	Theni
Namakkal	
Chengalpattu	

## Hotspots with large outbreaks (3/3)

State	District
Tamil Nadu	Madurai
	Tuticorin
	Karur
	Virudhunagar
	Kanniyakumari
	Cuddalore
	Thiruvallur
	Thiruvarur
	Salem
Nagapattinam	
Telangana	Hyderabad
	Nizamabad
	Warangal Urban
	Ranga Reddy
	Jogulamba Gadwal
	Medchal Malkajgiri
	Karimnagar
	Nirmal
Uttar Pradesh	Agra
	Gautam Buddha Nagar
	Meerut
	Lucknow
	Ghaziabad
	Saharanpur

State	District
Uttar Pradesh	Shamli
	Firozabad
	Moradabad
Uttarakhand	Dehradun
West Bengal	Kolkata
	Howrah
	Medinipur East
	24 Paraganas North

# Hotspots with clusters

State	District
Andaman And Nicobar Islands	South Andamans
Assam	Golaghat
	Marigaon
	Nalbari
	Goalpara
	Dhubri
Bihar	Munger
	Begusarai
	Gaya
Chhattisgarh	Raipur
Delhi	North West
Gujarat	Patan
Haryana	Ambala
	Karnal
Himachal Pradesh	Solan
	Una
	Sirmaur
	Chamba
	Kangra
Jammu And Kashmir	Shopian
	Rajouri
Jharkhand	Ranchi
	Bokaro
Karnataka	Dakshina Kannada

State	District
Karnataka	Bidar
	Kalaburagi
	Bagalkote
	Dharwad
Kerala	Wayanad
Ladakh	Kargil
Madhya Pradesh	Morena
Maharashtra	Kolhapur
	Amravati
	Palghar
Odisha	Bhadrak
Punjab	Mansa
	Amritsar
	Ludhiana
	Moga
Rajasthan	Udaipur
Telangana	Nalgonda
Uttar Pradesh	Bulandshahr
	Sitapur
	Basti
	Baghpat
Uttarakhand	Nainital
	Udam Singh Nagar

## Non hotspot districts reporting cases (1/5)

State Name	District Name
Arunachal Pradesh	Lohit
Assam	Cachar
	Hailakandi
	Kamrup
	Kamrup Metro
	Lakhimpur
	South Salmara Mancachar
	Karimganj
Bihar	Gopalganj
	Nawada
	Bhagalpur
	Saran
	Lakhisarai
	Nalanda
Chhattisgarh	Patna
	Bilaspur
	Durg
Delhi	Rajnandgaon
	North East
Goa	North Goa
	South Goa
Gujarat	Gandhinagar
	Bharuch
	Anand
	Kachchh

State Name	District Name
Gujarat	Porbandar
	Chhotaudepur
	Mahesana
	Gir Somnath
	Dohad
	Jamnagar
	Morbi
	Panch Mahals
	Sabar Kantha
Banas Kantha	
Haryana	Panchkula
	Panipat
	Sirsa
	Sonipat
	Bhiwani
	Kaithal
	Charki Dadri
	Fatehabad
	Hisar
	Jind
	Rohtak
Kurukshetra	
Jammu And Kashmir	Budgam
	Kulgam
	Pulwama

## Non hotspot districts reporting cases (2/5)

State	District
Jammu And Kashmir	Ganderbal
	Samba
Jharkhand	Hazaribagh
	Koderma
	Giridih
Karnataka	Ballari
	Mandya
	Bengaluru Rural
	Davangere
	Udupi
	Gadag
	Tumakuru
	Kodagu
	Vijayapura
	Chikkaballapura
Uttara Kannada	
Kerala	Thrissur
	Kollam
	Idukki
	Palakkad
	Kottayam
Alappuzha	
Ladakh	Leh Ladakh
Madhya Pradesh	Barwani
	Vidisha

State	District
Madhya Pradesh	Jabalpur
	East Nimar
	Dewas
	Chhindwara
	Gwalior
	Shivpuri
	Betul
	Dhar
	Raisen
	Sagar
	Shajapur
	Mandsaur
	Ratlam
Satna	
Sheopur	
Maharashtra	Akola
	Latur
	Satara
	Ratnagiri
	Osmanabad
	Jalgaon
	Sindhudurg
	Raigad
	Beed
	Hingoli

## Non hotspot districts reporting cases (3/5)

State	Districts
Maharashtra	Jalna
	Washim
	Gondia
	Dhule
	Solapur
Meghalaya	East Khasi Hills
Mizoram	Aizawl
Odisha	Cuttack
	Dhenkanal
	Jajapur
	Kalahandi
	Kendrapara
	Puri
	Sundargarh
Puducherry	Pondicherry
	Mahe
Punjab	Hoshiarpur
	Rupnagar
	Barnala
	Faridkot
	Fatehgarh Sahib
	Sangrur
	Kapurthala
	Patiala
	Sri Muktsar Sahib

State	Districts
Rajasthan	Churu
	Dausa
	Alwar
	Dungarpur
	Ajmer
	Karauli
	Pali
	Pratapgarh
	Barmer
	Dholpur
	Nagaur
Tamil Nadu	Sikar
	Hanumangarh
	Thanjavur
	Tiruvannamalai
	Kanchipuram
	Sivaganga
	The Nilgiris
Telangana	Kallakurichi
	Ramanathapuram
	Perambalur
	Ariyalur
	Suryapet
Telangana	Adilabad
	Mahabubnagar

## Non hotspot districts reporting cases (4/5)

State	District
Telangana	Kamareddy
	Vikarabad
	Sangareddy
	Medak
	Khammam
	Bhadradi Kothagudem
	Jagitial
	Jangoan
	Jayashankar Bhupalapally
	Kumuram Bheem Asifabad
	Mulugu
	Peddapalli
	Nagarkurnool
	Mahabubabad
	Rajanna Sircilla
Siddipet	
Tripura	Gomati
	North Tripura
Uttar Pradesh	Kanpur Nagar
	Varanasi
	Amroha
	Hapur
	Maharajganj
Pratapgarh	
Rampur	

State	District
Uttar Pradesh	Bareilly
	Ghazipur
	Azamgarh
	Hathras
	Muzaffarnagar
	Jaunpur
	Kheri
	Auraiya
	Banda
	Budaun
	Hardoi
	Kaushambi
	Mathura
	Mirzapur
	Rae Bareli
	Pilibhit
	Barabanki
Bijnor	
Prayagraj	
Shahjahanpur	
Etawah	
Uttarakhand	Haridwar
	Almora
West Bengal	Pauri Garhwal
	Kalimpong

## Non hotspot districts reporting cases (5/5)

State	District
West Bengal	Jalpaiguri
	Hooghly
	Nadia
	Paschim Bardhaman
	Medinipur West
	24 Paraganas South
	Darjeeling