

STRENGTHENING COMMUNITY SURVEILLANCE FOR COVID-19

Integrated Disease Surveillance Programme

National Centre for Disease Control

Directorate General of Health Services

Ministry of Health and Family Welfare, Govt. of India

Epidemiology of COVID-19

- Agent - Corona viruses belong to a large family of viruses, some causing illness in people and others that circulate among animals, including camels, cats, bats etc.
- The etiologic agent responsible for present outbreak of COVID-19 is SARS-CoV-2 which **is a novel coronavirus**.
- Transmission of coronaviruses can occur via **respiratory secretions**. Nosocomial transmission has been documented in COVID-19.
- Current estimates of the incubation period of 2019-nCoV range from **2-14 days**.
- Most common symptoms include **fever, fatigue, dry cough and breathing difficulty**. Upper respiratory tract symptoms like sore throat, rhinorrhea, and gastrointestinal symptoms like diarrhea and nausea/ vomiting are seen in about 20% of cases.

Case definitions – Suspect case

- A patient with **acute respiratory illness** {fever and at least one sign/symptom of respiratory disease (e.g., cough, shortness of breath)}, **AND** a **history of travel** to or residence in a country/area or territory reporting local transmission (See NCDC website for updated list) of COVID-19 disease during the 14 days prior to symptom onset;

OR

- A patient/Health care worker with **any acute respiratory illness** **AND** having been in **contact with a confirmed** COVID-19 case in the last 14 days prior to onset of symptoms;

OR

- A patient with **severe acute respiratory infection** {fever and at least one sign/symptom of respiratory disease (e.g., cough, shortness breath)} **AND** **requiring hospitalization** **AND** with **no other etiology** that fully explains the clinical presentation;

OR

- A case for whom **testing** for COVID-19 **is inconclusive**.

Case definitions – Laboratory confirmed case

- A person with **laboratory confirmation** of COVID-19 infection, irrespective of clinical signs and symptoms.

Definition of Contact

A contact is a person that is involved in any of the following:

- Providing direct care **without proper** personal protective equipment **(PPE)** for COVID-19 patients
- **Staying in the same** close environment of a COVID-19 patient (including **workplace, classroom, household, gatherings**).
- Traveling together in **close proximity** (1 m) with a **symptomatic person** who later tested **positive** for COVID-19.

Types of contacts

High Risk

- **Touched** body fluids of the patient (Respiratory tract secretions, blood, vomit, saliva, urine, faeces)
- Had **direct physical contact** with the body of the patient including physical examination **without PPE**.
- **Touched or cleaned** the linens, clothes, or dishes of the patient.
- Lives in the **same household** as the patient.
- Anyone in **close proximity (within 3 ft) of the confirmed case** without precautions.
- Passenger in close proximity (within 3 ft) of a conveyance with **a symptomatic person who later tested positive** for COVID-19 for more than 6 hours.

Low Risk

- Shared the same space (Same class for school/worked in same room/similar and **not having a high risk exposure** to confirmed or suspect case of COVID-19).
- Travelled in same environment (bus/train/flight/any mode of transit) but not having a high-risk exposure.

Key considerations – Surveillance

- Surveillance period is for **28 days** – (**14 days quarantine** at home or hospital or a designated facility and next **14 days** is for **self reporting**).
- Testing –
 - **All high risk contacts to be tracked, quarantined and lab-tested** as per the protocol.
 - For **low risk** contacts – lab-test **only when the person under surveillance develops symptoms**.
- Sample – Throat swab (Details in the session on lab)
- Treatment – No drug(s) or vaccine recommended presently.

Key considerations – Surveillance (Contd.)

- **Indian Nationals** – Irrespective of the location of the **health care facility** where the suspect/confirmed case is **admitted**, it will be included in the line list of the State **where the case resided** during the last 14 days (prior to or after the onset of the symptoms).
- In case of any conflict, the States may discuss the matter amongst themselves and take a decision.
- **Foreign Nationals** - An individual or a group of foreign nationals if found positive and **admitted in a designated health facility** in a particular State, that state to include such foreigners in its line list.

Key consideration – Contact Tracing

- A positive case may have **contacts in multiple States/UTs**.
- Tracking of all the contacts located in a particular State/UT will be the responsibility of that State/UT.
- In case of **any high risk contact** found in the particular State/UT, **sampling to be carried out by** respective State/UT along with Home/Hospital quarantine of the said contact.
- **Sampling** to be carried out **strictly in accordance with the guidelines**.

Cluster containment Strategy

Scenarios:

- Travel related cases reported in India
- Local transmission of COVID-19 (Single Cluster)
- Large outbreaks of COVID-19 disease (Multiple cluster)
- India becomes endemic for COVID-19
 - IDSP, will be involved in community surveillance in all of the above mentioned scenarios.

Containment zone

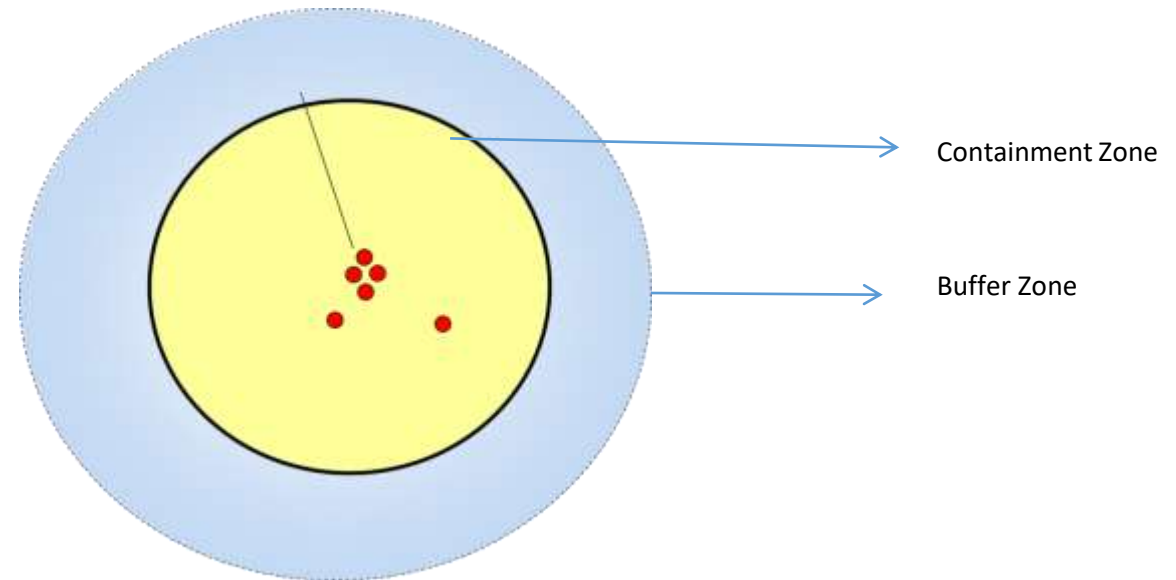
- A Central RRT will help the State/ District administration in **mapping the Containment Zone**.
- The containment zone will be defined based on
 - The index case / cluster, which will be the designated epicenter.
 - Geographical distribution of cases around the epicenter.
 - Local administrative boundaries of urban cities /town
- A scenario based approach (e.g. a small cluster in a closed environment or single cluster in a residential colony) while deciding the **perimeter of containment zone**.
- The decision on perimeter of the containment zone **is to be guided by continuous real time risk assessment**.

Containment zone Cont...

- Implementation of strict perimeter control is **vital for the containment** of COVID-19.
- Perimeter control is **primarily an administrative measure** – Enhanced surveillance within the perimeter is a part of the larger administrative response.
- Rapid Response Teams (RRTs) needs to be oriented on the enhanced surveillance & contact tracing.

Buffer Zone

- Buffer Zone is an area around the Containment Zone, where new cases most likely to appear.
- There will not be any perimeter control for the buffer zone.



Surveillance Activities in Containment Zone

The residential areas will be divided into sectors for the ASHAs/Anganwadi Workers/ANMs each covering 50 households (30 households in difficult areas).

Supervisory officers (PHC/CHC doctors) in the ratio of 1:4.

The field workers (FW) will be performing active house to house surveillance daily in the containment zone from 8:00 AM to 2:00 PM and also encourage self reporting.

The suspect will be isolated till such time he/she is examined by the supervisory officer.

The field worker will provide a mask to the suspect case and to the care giver identified by the family.

Line list the family members, contact listing, identification of close contacts and all those having symptoms.

Follow up contacts identified by the RRTs within the sector allocated to the FWs.

As per case definition the supervisory officer, visit house, make arrangements to shift the suspect case to the designated treatment facility.

The supervisory officer will collect data from the health workers under him/ her, collate and provide the daily and cumulative data to the control room by 4.00 P.M. daily.

Travel related cases reported in India

Containment Zone

- Isolation & management of case
- Quarantine of contacts
- Enhanced IEC
- Active ARI/ILI Surveillance
- Enhanced self reporting
- Enhanced personal hygiene, hand hygiene & cough etiquettes

Buffer Zone

- Enhanced Passive ARI/ILI Surveillance
- Enhanced Self reporting

Local transmission – Single cluster

Containment zone

- Isolation & management of case
- Quarantine of contacts
- Enhanced IEC
- Active ARI/ILI Surveillance
- Enhanced self reporting
- Enhanced personal hygiene, hand hygiene & cough etiquettes
- Establish control room in the local health facility
- **Ban local mass gathering**
- **Lockdown of identified cluster for e.g. Schools/residential building/Hotel**

Buffer zone

- Enhanced Passive ARI/ILI Surveillance
- Enhanced Self reporting.
- Enhanced media surveillance
- Trainings on case definitions and contacts

Large outbreak – Multiple clusters

Containment zone

- Isolation & management of case
- Quarantine of contacts
- Enhanced IEC
- Active ARI/ILI Surveillance
- Enhanced self reporting
- Enhanced personal hygiene, hand hygiene & cough etiquettes
- Ban local mass gathering
- Closure of schools, offices, colleges
- Environment disinfection
- Refrain from leaving home + Border measures
- Establishment of control room at the block and district level
- Enhanced media surveillance in and surrounding blocks/districts
- Monitoring of rumour register
- Mobile specimen collection units

Large outbreak – Multiple clusters

- Buffer zone

- Isolation & management of case
- Quarantine of contacts
- Enhanced IEC
- Active ARI/ILI Surveillance
- Enhanced self reporting
- Enhanced personal hygiene, hand hygiene & cough etiquettes
- **Border measures**
- **Ban all mass gatherings in buffer zone**
- **Media surveillance**
- **Mobile specimen collection units**

Endemic

- Isolation & management of cases as per guidelines
- Enhanced IEC
- **Routine Lab ARI/ILI Surveillance**
- Enhanced self reporting
- Enhanced personal hygiene, hand hygiene & cough etiquettes
- **Categorisation & Treatment**
- **Other Lab tests/Serological tests as per availability**
- Research
- Vaccination as per availability
- Media scanning and verification
- Rumour register monitoring

Border measures

- Refrain from leaving their homes and moving around from the containment zone for at least 14 days
- Refrain participating in events held in indoor venues when fever or respiratory symptoms are detected.
- Employers to cooperate for leaves or absence without a written diagnosis
- Enhanced entry screening for travellers from containment zone
- Involvement of all concerned departments.

IEC/BCC activities

- Education department
- Women and Child Development Department
- Transport Department
- Food safety Department
- DADF
- Tourism Department
- Other stakeholders like medical associations, nursing associations, hotel association etc.

Surge capacities – (Human resource, Hospitals Logistics etc.)

- Triage for hospitalization of cases.
- Additional workforce may be mobilised from neighbouring Districts/Medical colleges/private hospitals/NGOs/Trained Volunteers to cover household in containment zone.
- Nursing students/other paramedical workers may be oriented in advance for proper mobilisation of the staff during the containment procedures.
- Adequate logistics to be maintained at State and District levels.
- Mobile specimen collection teams (Involving medical and paramedical students) may be identified and oriented.
- Identification of Govt./Non Governmental buildings to be designated as quarantine centres or isolation wards at a short span of time.

THANK YOU