“DATA IN THE FIGHT AGAINST COVID-19 – WHAT DO WE LEARN?”

India’s response to COVID-19 Data and Information Management

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India’s response to COVID-19 management

• Swift and full-scale inter-ministerial coordination was established under the oversight of Prime Minister’s Office
• Real time disaggregated data by age, sex, location, hospital readiness, medical supplies, etc. were collected and analyzed to inform decision makers and the general public

• Over 950,000 travelers were screened across all airports of India
• Community surveillance was fully activated along with monitoring of cases for up to 28 days was imposed
• All contacts were traced and monitored and all cases were given full treatment
Real-time Information Systems

- Integrated Disease Surveillance Programme (IDSP)
- Health Management Information System (HMIS)
- Integrated Health Information Platform (IHIP)

Data Sharing

- Case-based SARI andILI data
- Aggregate SARI + ILI OPD and IPD cases and facility infrastructure and human resources data
- Mapping interface of SARI andILI cases

Enhanced Special Surveillance System (S3)

Through integration, the Special Surveillance System (S3) expanded national and state capacities for detection, testing and viewing of ILI and SARI cases for COVID-19.

The enhanced S3 assisted in identifying nation-wide clusters for COVID-19 response and containment.

Welcome to COVID-19 Portal
Documenting disaggregated data
Managing line listing of cases and contacts
### Monitoring of laboratory results

<table>
<thead>
<tr>
<th>Person Name</th>
<th>Provisional Diagnosis</th>
<th>Test Performed</th>
<th>Date of Onset</th>
<th>Date of Sample Collection</th>
<th>Type of Sample</th>
<th>Specimen ID</th>
<th>Date of Test Performed</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>MASKED</td>
<td>COVID-19</td>
<td>RT-PCR</td>
<td>25/03/2020</td>
<td>25/03/2020</td>
<td>Nasopharyngeal swab</td>
<td></td>
<td>25/03/2020</td>
<td>Positive</td>
</tr>
<tr>
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<td>COVID-19</td>
<td>RT-PCR</td>
<td>23/03/2020</td>
<td>26/03/2020</td>
<td>Nasopharyngeal swab</td>
<td></td>
<td>26/03/2020</td>
<td>Positive</td>
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<td>RT-PCR</td>
<td>30/03/2020</td>
<td>20/04/2020</td>
<td>Nasopharyngeal swab</td>
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<td>24/04/2020</td>
<td>Positive</td>
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<tr>
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<td>RT-PCR</td>
<td>25/03/2020</td>
<td>28/03/2020</td>
<td>Nasopharyngeal swab</td>
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<td>25/03/2020</td>
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</tbody>
</table>
Producing real-time data analytics for decision-making
Obtaining daily aggregate data of SARI and ILI cases across 200,000 health facilities
Geospatial visualization of data for action
Comprehensive national view of active cases, cured and deaths
What did we learn?

• Intersectoral coordination is essential for managing large-scale outbreaks

• Disaggregated patient data along with clinical, laboratory, drugs and logistics and population data are essential for emergency response

• Person-centric integrated information systems with near real-time geospatial data analytics capabilities are essential and be made available to all persons at all levels of emergency response chain for timely decision-making

• Health systems preparedness is key to timely emergency response