Response to COVID-19
Informed Decision making
- Case study of Pune

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Pune – regional setting

*PMC : Pune Muni. Corp.
*PCMC: Pimpri Chinchwad Muni. Corp.
*Pune UA: Urban Agglomeration
*PMR: Pune Metro Region

330 sq km
Pune – salient features

- Pune Municipal Corporation (PMC) administers Pune City
- Population of Pune is > 5 mn (2020 estimates)
- Around 40% population resides in 564 no. of slums
- Recently developed GIS map of Pune city
- Like many other Indian cities focus is more on creation of physical infra. facilities and lesser on digitalisation, use of data for decision making
- Still Pune is among one of the few top reform-oriented cities in India
Pune – past disasters and pandemics

2010 Swine flu pandemic in India
> 144 casualties reported in Pune

2019 Swine flu
~ 34 casualties reported in Pune
(Till June 2019, news reports)

2019 Cloud Burst and flooding
~ 22 casualties reported in Pune
(news reports)

Lack of timely forecast of monsoon data
Interagency coordination challenges

- Lack of data processing, mapping
- Decision making based on Institutional memory
Corona outbreak – data was still analysed in traditional way

- City level data and information was analysed and communicated
- It was unnecessarily putting lot of pressure on limited resources like manpower, health workers, hospital facilities, police, providing relief measures etc.
- Communication reaching to citizens (within and outside Pune city) was not clear, entire city was perceived to be **HOTSPOT** of COVID-19

Source: As published by PMC, for representation only
First time city attempted use of spatial tools for mapping ward wise data

Ward-wise breakdown of Positive Patients

As of April 24, 2020

Ward Wise Corona Patients
23. Apr. 2020

Figure are dynamic and are modified based on daily updates

Total Positive cases: 980

Source: As published by PMC, for representation only
Spatial mapping helped in analyzing dynamic changes in COVID-19 cases across wards and sub wards within Pune city

Prabhag level Mapping of cases...as on 23 April 2020

Prabhag Wise Confirmed Cases

- Confirmed
  - > 20 - 81
  - > 10 - 20
  - > 5 - 10
  - 0 - 5

Source: As published by PMC, for representation only
It further helped in delineating containment zone and allocating critical resources in an efficient manner.
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Source: As published by PMC, for representation only
In the initial stage, contact tracing i.e. identification and tracing of high-risk contacts is very critical. The spatial mapping helped in reducing the crucial time required in this activity.

### Contact Tracking: High Risk Contacts and Low Risk

<table>
<thead>
<tr>
<th>Category</th>
<th>Total Contacts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>9641</td>
</tr>
<tr>
<td>High Risk</td>
<td>3643</td>
</tr>
<tr>
<td>Low Risk</td>
<td>5998</td>
</tr>
</tbody>
</table>

**Total No. of High risks contacts**

37.7%

**Total No. of Low risk contacts**

62.2%

Source: As published by PMC, for representation only
Now PMC is better oriented and focused to respond the pandemic

### Essentials food supplies/medicines/other emergency services for senior and differentially abled citizens

- **Total call Received**: 3434
- **Total call Addressed**: 3242
- **Pending**: 192

**94% of cases are resolved**

**Average of 100 calls are addressed daily**

### New Innovation - Opening of Flu Clinic

- **Total Citizen consultation done (From March 1st till now)**: 224975
- **Flu like symptoms**: 58872

**Total No. Of flu Clinic**: 74

**Total Patients referred**: 823 No.

**Total Patients diagnosed positive**: 4

Source: As published by PMC, for representation only
Now PMC is better oriented and focused to respond the pandemic

Manpower Deployed for Door To Door survey

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Officers</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Divisional Health officers</td>
<td>5</td>
</tr>
<tr>
<td>2</td>
<td>Area Health officers</td>
<td>15</td>
</tr>
<tr>
<td>3</td>
<td>Nurses</td>
<td>133</td>
</tr>
<tr>
<td>4</td>
<td>Clerks</td>
<td>200</td>
</tr>
<tr>
<td>5</td>
<td>Asst. Teachers</td>
<td>979</td>
</tr>
<tr>
<td>6</td>
<td>Food Inspector</td>
<td>7</td>
</tr>
<tr>
<td>7</td>
<td>Samuh Sanghatika</td>
<td>96</td>
</tr>
<tr>
<td>8</td>
<td>ASHA workers</td>
<td>90</td>
</tr>
<tr>
<td>9</td>
<td>Total</td>
<td>1524</td>
</tr>
</tbody>
</table>

Apart from this, PMC included support of all ward officers level DSI, SI and Mukaddams

Total 1524 manpower staff are deployed in the Field

City wise door to survey details (started from 16 march 2020)

HOUSEHOLD COVERED(1/3)

As of April 24, 2020

- Total cluster: 59
- Total survey team on ground: 747
- No. of houses visited till now: 13.08 lakh

Graph showing household surveyed and cumulative over time with an average of 32,722 No. houses visited daily since last 10 days

Source: As published by PMC, for representation only
Helped in identification of pvt. treatment facilities closer to hotspots, creation of a flow chart and develop a protocol.

FLOW CHART OF COVID-19 PATIENT FLOW

As of April 24, 2020

COVID CARE CENTRE (CCC)

Positive

Dedicated Covid Health Centre (Moderate)

Admit In CCC (Mild)

1. Rakshaknagar Sports Complex, Kharadi
2. Khandkar Hospital, Bopodi
3. Laigude Hospital, Dhayri
4. Shivarkar Hospital, Wanawadi
5. Thakare Maternity Hospital, Kodhwa
6. Sanas Ground Hostel
7. Sighgard Institute
8. NICMAR

Dedicated Covid Hospital (Severe)

1. Dr. Naidu Hospital
2. Ruby Hospital
3. Jawangi Hospital
4. Inlakes Budhram
5. Colombia & Asia Hospital
6. K.E.M. Hospital
7. Sahyadri Hospital Karvenagar
8. Sahyadri Hospital, Kohrud
9. Sahyadri Hospital, Bibewadi
10. Noble Hospital, Hadapsar
11. Deenanath Hospital
12. Sassoon General Hospital
13. Aundh Civil Hospital
14. Bharti Hospital
15. Symbiosis University Hospital, Lawalwadi

If Slum Area Institutional Quarantine

1. Sassoon General Hospital
2. Symbiosis Hospital
3. Bharati Hospital

Home Quarantine

Source: As published by PMC, for representation only
Pune is one of the very few Indian cities which have Open data portal where substantial data is available for different stakeholders.
COVID-19 Impact – Urban Planning need to be relooked

Planning & Decision making

- Redevelopment of slum areas, to provide better access to housing, and services
- Self sufficient neighbourhoods with open spaces, food supplies, health facilities
- Decentralisation of Agri Produce Markets (APMC)
- Smart Affordable Solutions for effective operations management and city planning.

Partnering & Collaboration

- Role of open spaces, especially in high density areas
- Collaboration with NGOs and partners, sharing of data
- Collaboration with researchers
- Innovative solutions for Citizen engagement & Collaboration
Thank You