

Impact of COVID on Vulnerable Groups with focus on Water and Sanitation

Center for Water and Sanitation (CWAS)

CRDF, CEPT University

24 July 2020

CWAS CENTER
FOR WATER AND
SANITATION

CRDF CEPT RESEARCH
AND DEVELOPMENT
FOUNDATION

CEPT
UNIVERSITY

Intern : Snehal Shinkar

Guided by : Arwa Bharmal, Yugasha Bakshi

Table of Contents

01

Context

Introduction and Methodology




Defining Vulnerability

Impact of COVID on vulnerable groups

02

COVID and Urban slums


Impact on access to basic services in 



Relation between COVID cases and slums of Pune, Surat

03

COVID and Sanitation workers

Challenges faced by Sanitation workers 



Telephonic surveys of workers from Pune, Sinner

04

Response to COVID

Government Advisories and Global Organization's Recommendations 



Best Case Practices- National and International

05

Proposed Recommendations

Recommendations for Urban Slums



Recommendations for Sanitation Workers

Table of Contents

01

Context

Introduction and
Methodology



Defining
Vulnerability

Impact of COVID
on vulnerable
groups

02

COVID and Urban slums

Impact on access
to basic services in



Relation between
COVID cases and
slums of Pune, Surat



03

COVID and Sanitation
workers

Challenges faced
by Sanitation
workers



Telephonic surveys
of workers from
Pune, Sinner

04

Response to COVID

Government
Advisories and
Global
Organization's
Recommendations



Best Case
Practices-
National and
International

05

Proposed
Recommendations

Recommendations for
Urban Slums



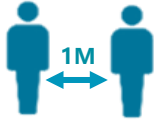
Recommendations
for Sanitation
Workers

Introduction

Coronavirus disease (COVID-19) is an infectious disease caused by a newly discovered coronavirus with most common symptoms like dry cough, fever and tiredness

Washing hands or using an alcohol based rub frequently is one of the key preventive measure.

COVID-19 Prevention guidelines by WHO



Avoid close contact



Cover and Cough



Wash Hands



Don't touch your face



Avoid crowded places and travel

Source: https://www.who.int/health-topics/coronavirus#tab=tab_1,

Factors Influencing Spread OF Pandemic

The outbreak of a the Pandemic is a result of pre- existing conditions and gaps in various sectors of the society.



Lack of clean water and Sanitation



Poor access to health care and basic services



Food insecurity



Overcrowding and high density



Weak Governing systems

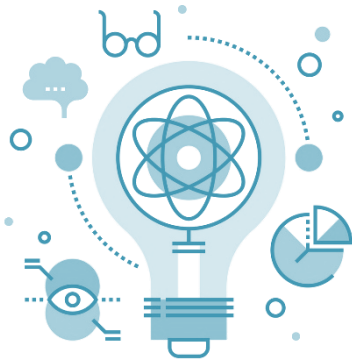
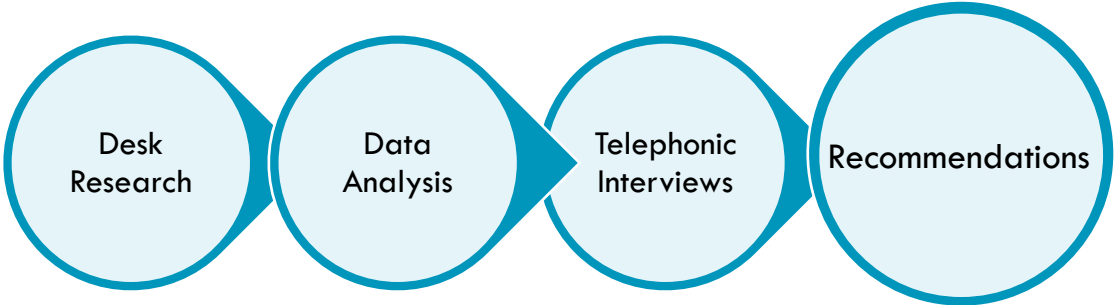


High dependency on informal economy



Marginalized and Undeserved communities

Methodology



Inadequate Access to Basic Services

The pandemic is a **Shock** but repercussions are resultant of pre existing **Stress**



Access to principal source of drinking water
Exclusive: 58%
Common: 43%
19% HH have water supply outside their premises



Access to bathroom
Exclusive: 75%
Common: 25%
Distribution of HH by type of bathroom used
Attached: 75%
Detached or any other type: 25%



Access to latrine
Exclusive: 78%
Common: 22%
Distribution of HH by type of latrine used
Flush/pour-flush to pipes sewer: 39%
Flush/pour flush to septic tank: 49%



Practice of hand washing before meal
With water & soap: 56%
With water only: 42%
Hand washing after defecation
With water and soap: 88.3%
With water only: 10%

Source: NSS76 Round, 2018, Drinking water, Sanitation, Hygiene and Housing Conditions in India

Defining Vulnerability

Vulnerability is the degree to which a population, individual or organization is unable to anticipate, cope with, resist and recover from the impacts of disasters.

- WHO 2002

'Vulnerable groups in context of the research is defined as marginalized groups with inadequate or lack of access to basic services with minimum access to health care and sanitation workers which are a part of frontline workers in the Pandemic.'

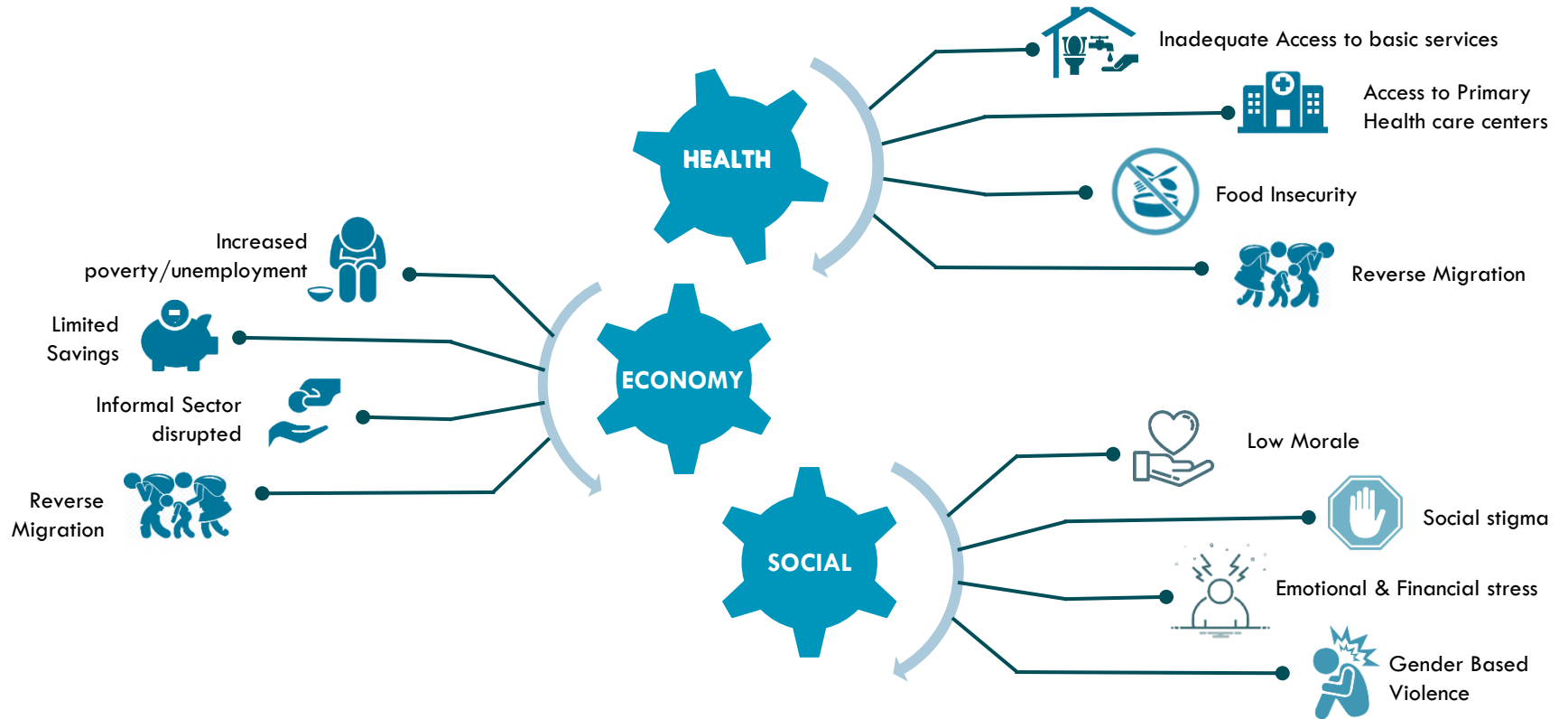
- According to 2011 census 17.4% of total urban population living in slums
- Slums have limited access to basic infrastructure and are one of the vulnerable groups studied with major impacts due to Pandemic.



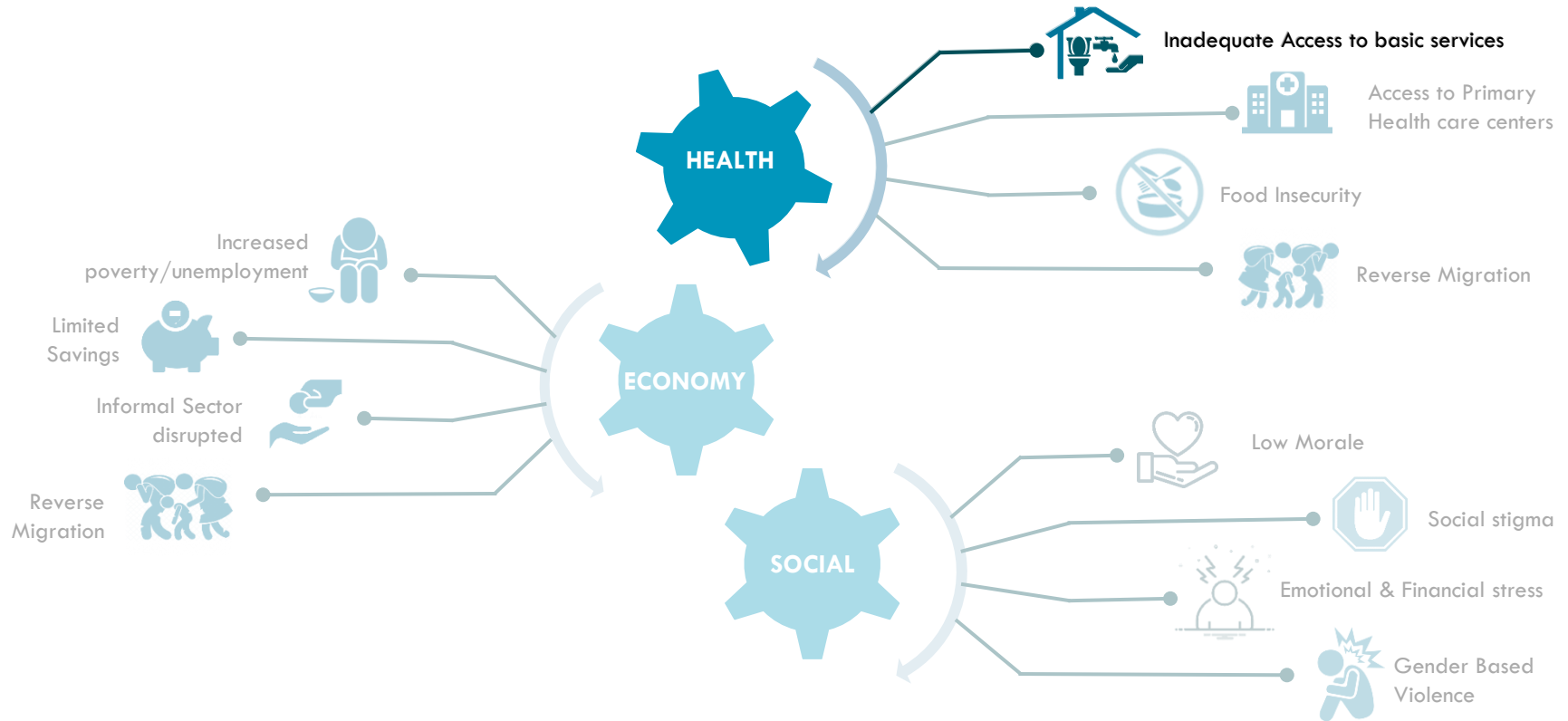
Sanitation workers are a part of frontline workers in the Pandemic and are a segment of marginalized and unobserved communities.

Source: https://www.who.int/environmental_health_emergencies/vulnerable_groups/en/

Impact of Pandemic on Vulnerable Groups



Impact of Pandemic on Vulnerable Groups



Impact of Pandemic on Access to Basic Services

Accessing basic services has become a threat to many communities increasing fear and stress in communities, coupled with unemployment and economic downfall

WATER

- Water demand increased at high rate as all the family members are at home.
- People relying on tankers are facing problems due to unavailability of tankers.
- Buying water is unaffordable with no daily income
- Fetching water from community taps is a threat to life.
- Menstrual Health Hygiene is affected due to unavailability of cheap sanitary pads.

SANITATION

- Community toilets are the hotspots of disease transmission.
- No labor and lockdown made fewer suction trucks available.
- The frequency of cleaning of community toilets had increased but the people using it also increased.
- High dependency rate on community toilets affects social distancing norms.
- Sanitation workers are exposed to maximum threats with lack of facilities and heavy PPE kits.
- These workers are mostly assumed to be living in slums which are again the hotspots of transmission of virus.

Table of Contents

01

Context

Introduction and
Methodology



Impact of COVID
on vulnerable
groups

02

COVID and Urban slums

Impact on access
to basic services



Relation between
COVID cases and
slums of Pune, Surat

03

COVID and Sanitation
workers

Challenges faced
by Sanitation
workers



Telephonic surveys
of workers from
Pune, Sinner

04

Response to COVID

Government
Advisories and
Global
Organization's
Recommendations



Best Case
Practices-
National and
International

05

Proposed
Recommendations

Recommendations for
Urban Slums



Recommendations
for Sanitation
Workers



Telephonic Interviews of slum dwellers and CBOs from Mumbai, Pune, Sinnar helped us to understand ground reality of the impact on Pandemic



PRASHANT NADKAR

Telephonic Surveys of CBO Leaders in Mumbai

- Telephonic interviews of CBO leaders maintaining Community Toilets were taken to understand impact of COVID on Community toilet and vice versa.
- The locations selected are high risk zones from initial stage of lockdown and availability of contact numbers.



Telephonic Interview: **10**



Slums with Covid 19 Cases : **04**



08 were cleaned and disinfected twice or more in a day



04 cleaned and disinfected by BMC

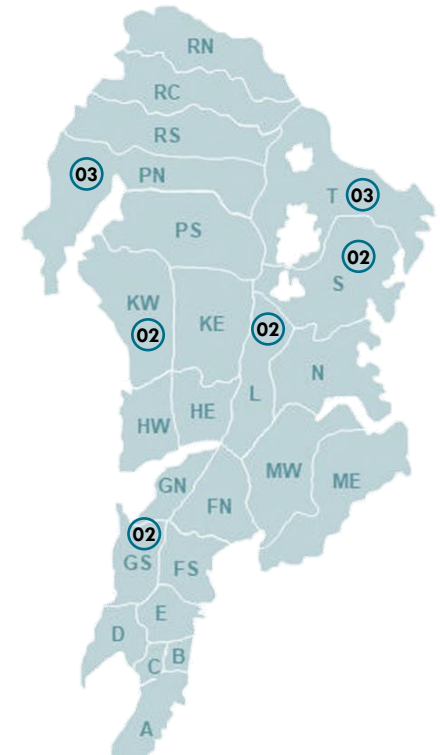
07 cleaned and disinfected by CBOs employing contractual workers



09 of 11 slums did not have foot operated hand washing stations installed



Footfall has decreased with migrants returning back to native places in all the toilets



BMC Ward Map highlighting selected ward and no of interviews taken



*The numbers presented denote count of toilet blocks

Testimonials – CBO Leaders of Mumbai



“The Toilet block **isn't cleaned** regularly and do not have water supply. Users themselves **carry buckets of water**. Very few users use mask and follow social distancing ”



“ People having access to individual toilet also **used community toilet due to insufficient water supply** as toilets are kept clean. Post lockdown the footfall has decreased as people use individual toilet and migrants have returned to native place ”



“ BMC officials **promoted hygiene practice** in slums and took training sessions. Toilet block is **cleaned thrice a day** and Handwashing station is installed ”

Telephonic Interviews - MUMBAI



Telephonic Interviews: 10

Covid 19 Cases : 03

01 News, BMC

03 News

Hygiene Awareness



02



Shared Toilet

04



Not Crowded,
cleaned once a day

10



Individual Water connection

04



Crowded,
cleaned twice a day

00



New Hand washing station installed



“The lanes are very narrow with too many users social distancing is not followed. Toilet are cleaned once in a day but **not sanitized.**”

**The numbers presented denote count of slums*

**The interviews taken are from 10 different slums*

**The interviews are taken from high risk wards from initial stage*

Telephonic Interviews - PUNE



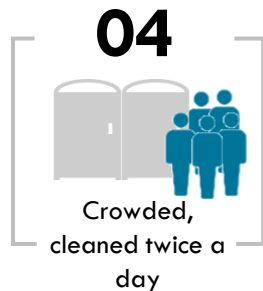
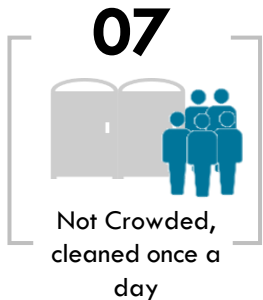
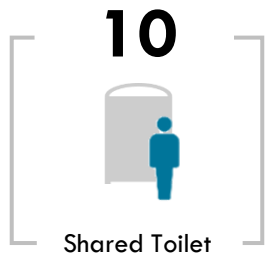
Telephonic Interviews: **22**

Covid 19 Cases : 03

01 News, BMC

03 News

Hygiene Awareness



Telephonic Interviews - SINNAR



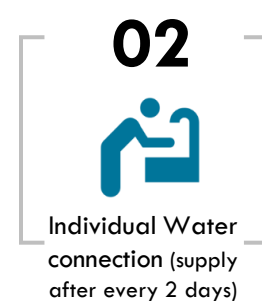
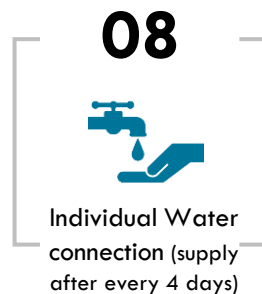
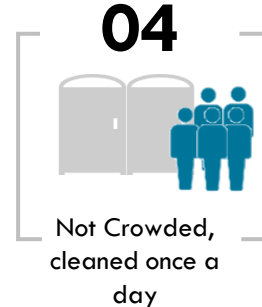
Telephonic Interviews: **10**

Covid 19 Cases : 00

01 News, SMC

03 News

Hygiene Awareness



*The numbers presented denote count of slums

*The interviews taken are from different slums

*The interviews are taken from high risk wards from initial stage

Testimonials

MUMBAI



“Community toilet was used earlier but **prefer pay and use toilet** from past 3 months to **avoid risk** as it's more clean and less crowded. Slum is disinfected at least once in a day”

PUNE



“Hand washing station is installed but **has no water**. It was maintained for first 15-20 days only. Toilet is cleaned once in a day.”



“We don't have community toilet in our slum. The toilet in a slum nearby is **crowded** and hence **open defecation** is the only option.”

SINNAR



“Water supply is **after every 4 days** hence need to store water. Stored water is insufficient sometimes due to **increase in usage of water** from past 3 months and have to buy water”

Key Findings from Telephonic Surveys



MUMBAI

- The foot fall of community toilet have decreased with migrants returning back to their native place.
- Media news is relied upon for awareness on health hygiene.
- Very few slums had handwashing stations installed among the interviewed slums.
- All the respondents had individual water connection.



PUNE

- Media news is relied upon for awareness on health hygiene.
- Hand washing stations aren't maintained and most of them don't have hand wash or water.
- Secondary data says that the seats per person ration in Community toilet exceed 1:50 but in most cases the telephonic interviews state that most of them aren't crowded and cleaned twice a day.



SINNAR

- Majority of Community toilets aren't crowded and cleaned once in a day.
- No handwashing stations are installed among the interviewed slums.
- All the respondents have individual water connection but the water is supplied once in 4 days.
- Media news is relied upon for awareness on health hygiene.

Table of Contents

01

Context

Introduction and
Methodology



Defining
Vulnerability

Impact of COVID
on vulnerable
groups

02

COVID and Urban slums

Impact on access
to basic services



Relation between
COVID cases and
slums of Pune,
Surat

03

COVID and Sanitation
workers

Challenges faced
by Sanitation
workers



Telephonic surveys
of workers from
Pune, Sinar

04

Response to COVID

Government
Advisories and
Global
Organization's
Recommendations



Best Case
Practices-
National and
International

05

Proposed
Recommendations

Recommendations for
Urban Slums



Recommendations
for Sanitation
Workers

Relation Between COVID Cases and Access to Basic Services

- The first phase of lockdown saw sudden spike in COVID cases from urban slums across the cities.
- The analysis focuses on drawing relation if any, of inadequate access to basic services to rising COVID cases.
- Two worst hit cities Pune and Surat claiming majority cases from slums in April-May are selected for the study.
- With on time interventions and precautions the cases in these areas are gradually reducing and the analysis is solely based on data from April-May-June(first week)



PUNE - MAHARASHTRA

Second worst hit city after Mumbai in Maharashtra

Wards : 15

Slum Population : 11,89,724

Slum Households : 2,11,206

Slum settlements: 564

Declared : 62%

Undeclared : 38%

Following are the COVID high risk wards selected for the study:

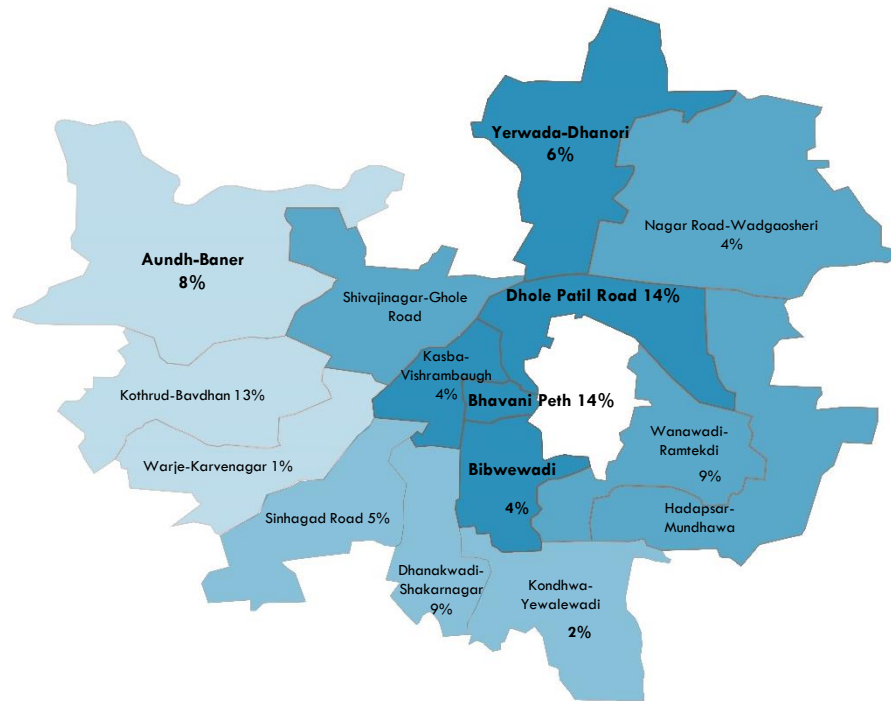
Dhole Patil Road Ward

Bhavani Peth Ward

Bibwewadi Ward

Yerwada-Dhanori Ward

Aundh had the least cases with hike in last two months



no% - % of slums

Source: Pune City Sanitation Plan,2012 | PMC Pune Facebook Page



PUNE - MAHARASHTRA

Second worst hit city after Mumbai in Maharashtra

Wards : 15

Slum Population : 11,89,724

Slum Households : 2,11,206

Slum settlements: 564

Declared : 62%

Undeclared : 38%

Following are the COVID high risk wards selected for the study:

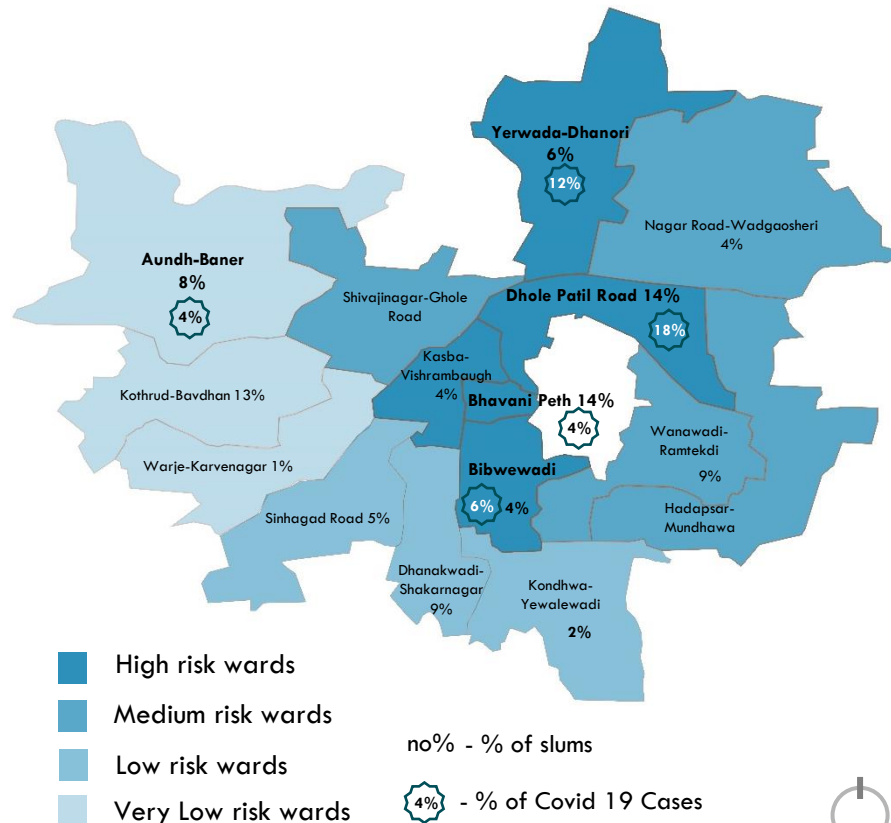
Dhole Patil Road Ward

Bhavani Peth Ward

Bibwewadi Ward

Yerwada-Dhanori Ward

Aundh had the least cases with hike in last two months



Source: Pune City Sanitation Plan,2012 | PMC Pune Facebook Page

Numbers in % are slum settlements in respective wards

Dhole Patil Road Ward

Ward with highest Covid-19 cases in slums from initial stage

Total Slums: 77



Slum Settlements

14%



Covid 19 Cases

18%



Slums Selected

17

ACCESS TO BASIC SERVICES

22%



Individual Toilet
(HH)

88%

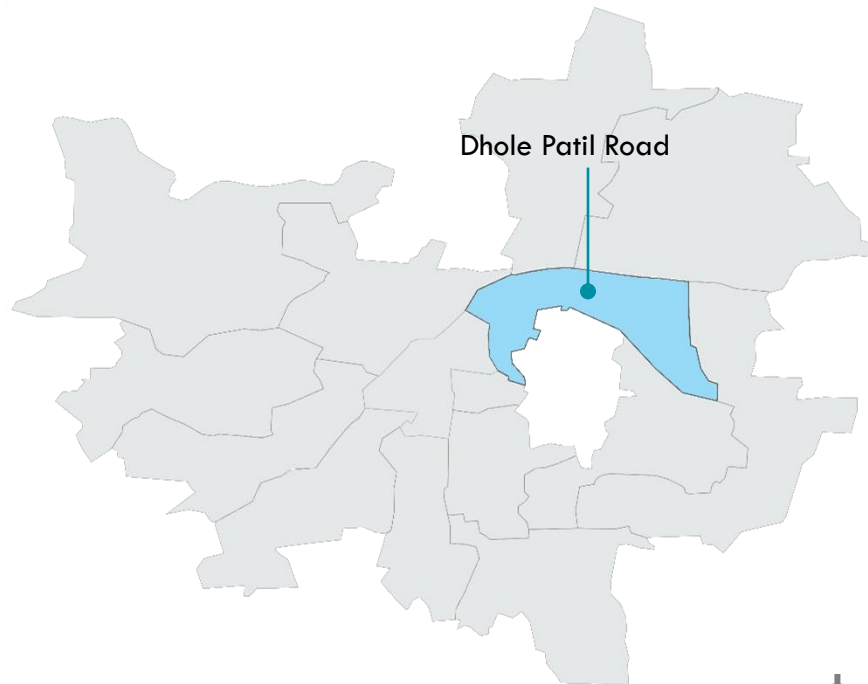


Individual water
connection (HH)

52%



Slums depend on Community
toilet with Seats per person
ratio exceeding 1:50



PMC Ward Map highlighting selected ward



*The numbers presented in % are average HH numbers of selected samples

*The Slums selected for analysis are in high risk zone constantly from initial stage till 06 June 2020

*The reflections are based on 2017 data and there is a possibility of construction of more individual toilets

Source: shelter-associates.org/city::Pune

Bhavani Peth Ward

Ward with maximum cases in high density slums.

Total Slums: 81



Slum Settlements

14%



Covid 19 Cases

04%



Slums Selected

12

ACCESS TO BASIC SERVICES

13%



Individual Toilet
(HH)

97%



Individual water
connection (HH)

38%



Slums depend on Community
toilet with Seats per person
ratio exceeding 1:50



PMC Ward Map highlighting selected ward

*The numbers presented in % are average HH numbers of selected samples

*The Slums selected for analysis are in high risk zone constantly from initial stage till 06 June 2020

*The reflections are based on 2017 data and there is a possibility of construction of more individual toilets

Source: shelter-associates.org/city::Pune

Bibwewadi Ward

Ward with highest Covid-19 cases in slums from initial stage

Total Slums: 25



Slum Settlements

04%



Covid 19 Cases

08%



Slums Selected

10

ACCESS TO BASIC SERVICES

39%



Individual Toilet
(HH)

84%

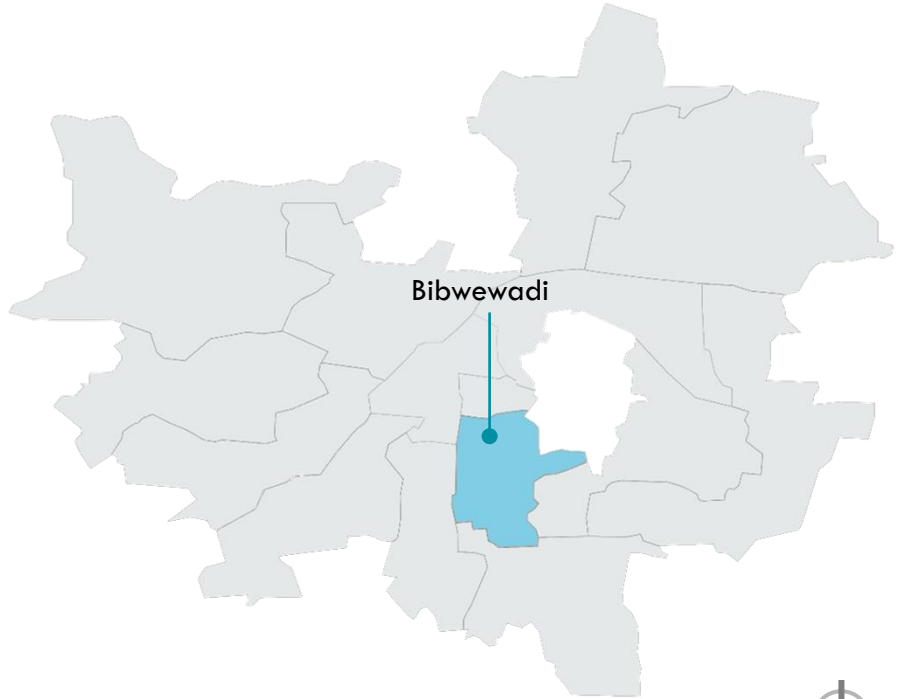


Individual water
connection (HH)

100%



Slums depend on Community
toilet with Seats per person
ratio exceeding 1:50



PMC Ward Map highlighting selected ward

*The numbers presented in % are average HH numbers of selected samples

*The Slums selected for analysis are in high risk zone constantly from initial stage till 06 June 2020

*The reflections are based on 2017 data and there is a possibility of construction of more individual toilets

Source: shelter-associates.org/city::Pune

Yerwada - Dhanori Ward

Ward with highest Covid-19 cases in slums from last two months

Total Slums: 23



Slum Settlements

06%



Covid 19 Cases

12%



Slums selected

08

ACCESS TO BASIC SERVICES

52%



Individual Toilet
(HH)

99%

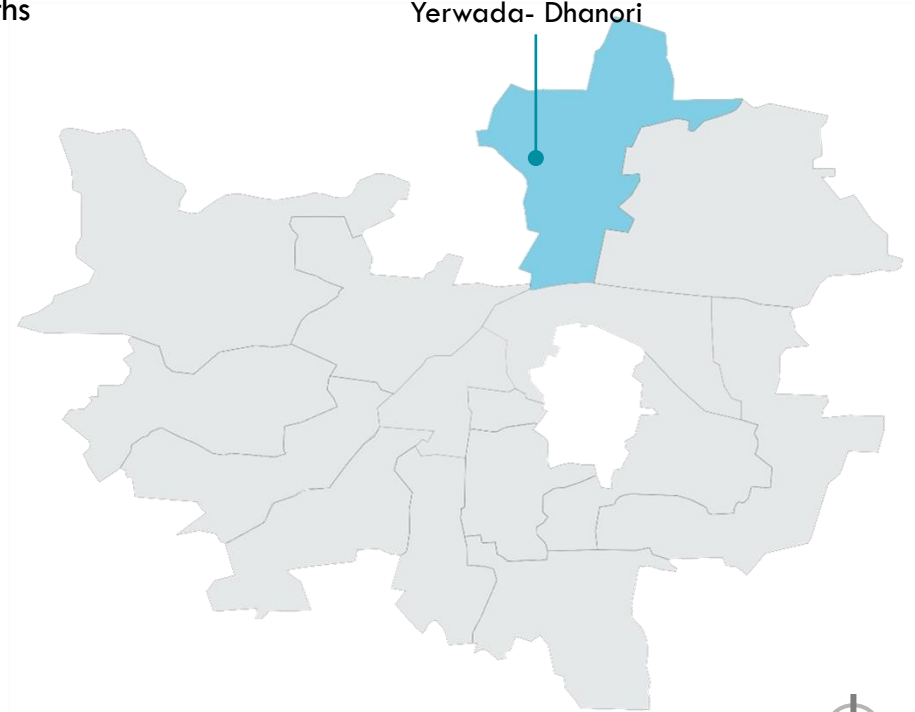


Individual water
connection (HH)

50%



Slums depend on Community
toilet with Seats per person
ratio exceeding 1:50



PMC Ward Map highlighting selected ward

*The numbers presented in % are average HH numbers of selected samples

*The Slums selected for analysis are in high risk zone constantly from initial stage till 06 June 2020

*The reflections are based on 2017 data and there is a possibility of construction of more individual toilets

Source: shelter-associates.org/city::Pune

Aundh - Baner Ward

Ward with one of the least Covid-19 cases in slums and hiked from last two months

Total Slums: 44



Slum Settlements

08%



Covid 19 Cases

04%



Slums selected

05

ACCESS TO BASIC SERVICES

13%



Individual Toilet (HH)

99%

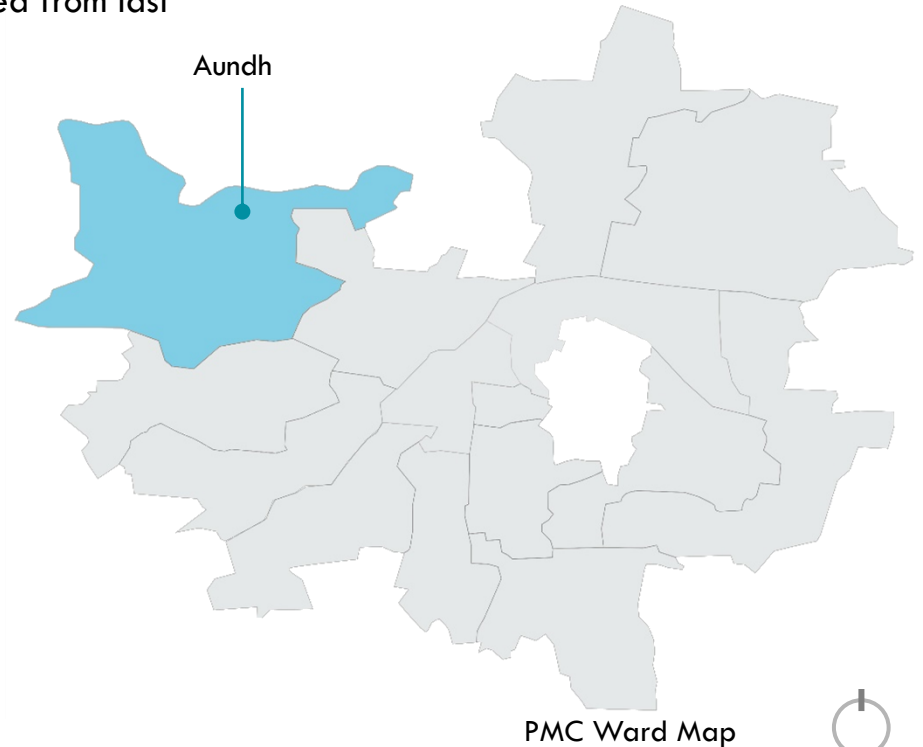


Individual water connection (HH)

33%



Slums depend on Community toilet with Seats per person ratio exceeding 1:50



PMC Ward Map



*The numbers presented in % are average HH numbers of selected samples

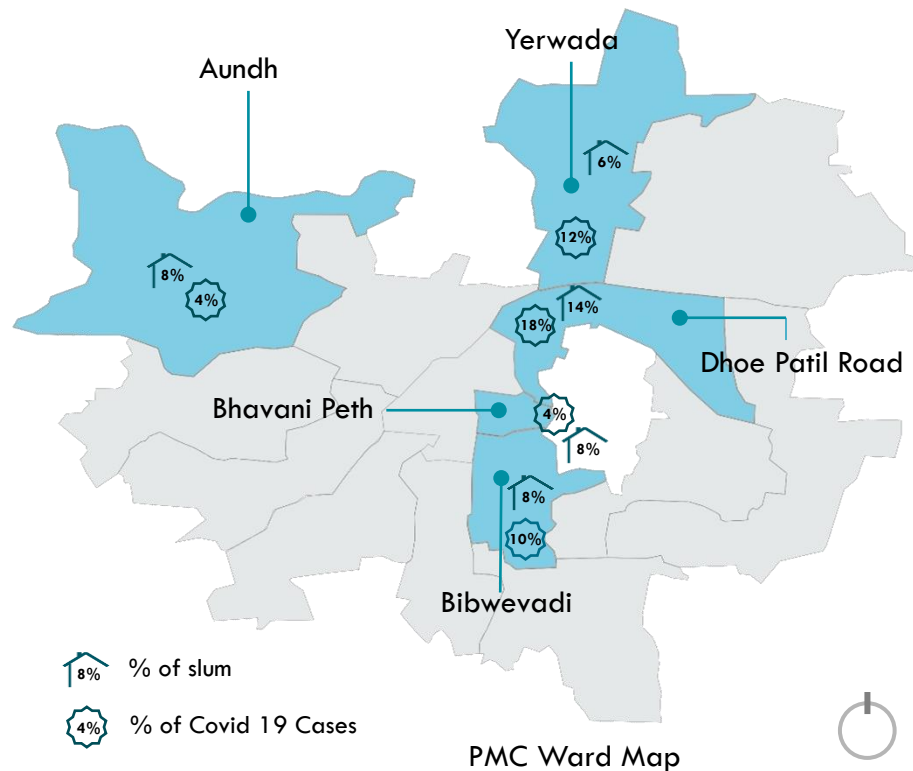
*The Slums selected for analysis are in high risk zone constantly from initial stage till 06 June 2020

*The reflections are based on 2017 data and there is a possibility of construction of more individual toilets

Source: shelter-associates.org/city::Pune

Key Findings

- The wards with high rate of Covid 19 cases have less than **50%** individual toilets.
- More than **80%** households have access to individual water connection.
- **Aundh** has low density slums and though only **13%** households have access to individual toilet the community toilets are seen to be sufficient with low seats per person ratio.
- With **80-85%** positive cases from Slums of Pune officials are looking for long term solution with individual housing and toilet.



*The Slums selected for analysis are in high risk zone constantly from initial stage till 06 June 2020
*The reflections are based on 2017 data and there is a possibility of construction of more individual toilets

Source: Pune Mirror

SURAT - GUJARAT

Second worst hit city after Ahmedabad in Gujarat

Zones : 07

Slum Population : 346184

Slum Households : 68420

Slum settlements: 334

East zone has highest number of slums with 18% while Central zone has only 5% of total slum pockets.

Limbayat, Katargam and Varachha zones are consistent, with maximum Covid-19 cases and containment zones.



Source: SMC, HFAPOA 2017

SURAT - GUJARAT

Second worst hit city after Ahmedabad in Gujarat

Zones : 07

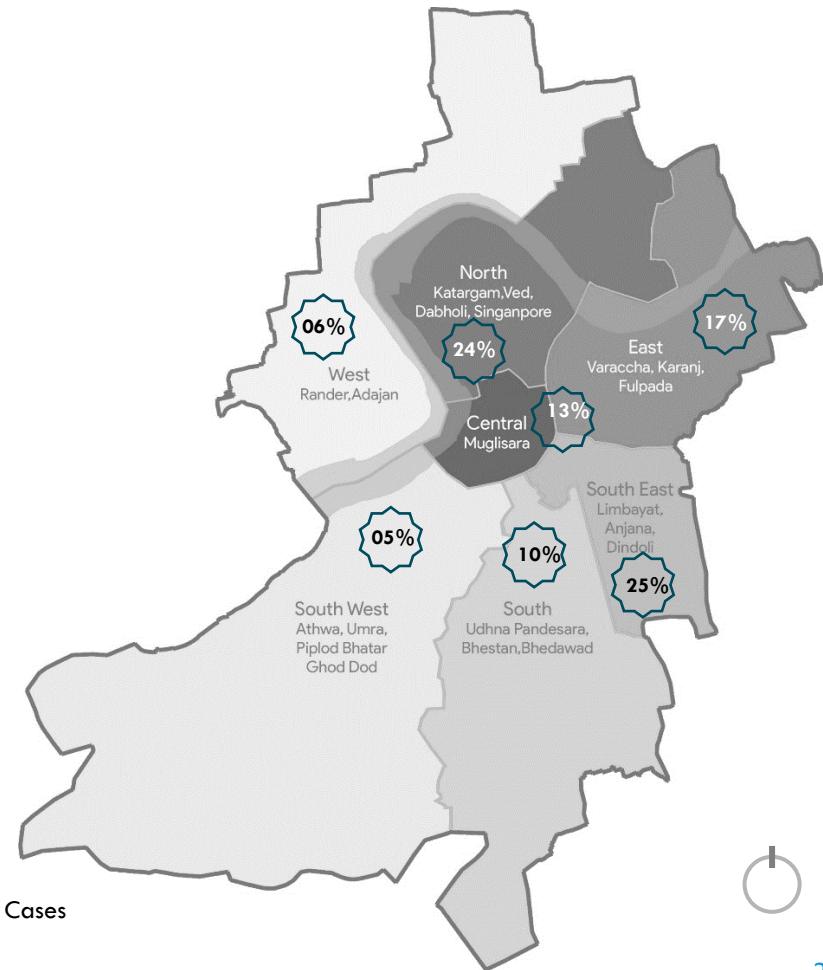
Slum Population : 346184

Slum Households : 68420

Slum settlements: 334

East zone has highest number of slums with 18% while Central zone has only 5% of total slum pockets.

Limbayat, Katargamn and Varachha zones are consistent, with maximum Covid-19 cases and containment zones.



Source: SMC, HFAPOA 2017

4% - % of Covid 19 Cases

Access to Basic Services

SURAT

South-East Zone (45 slums):

80% slums have less than 50% individual water and toilet connection

North Zone (41 slums):

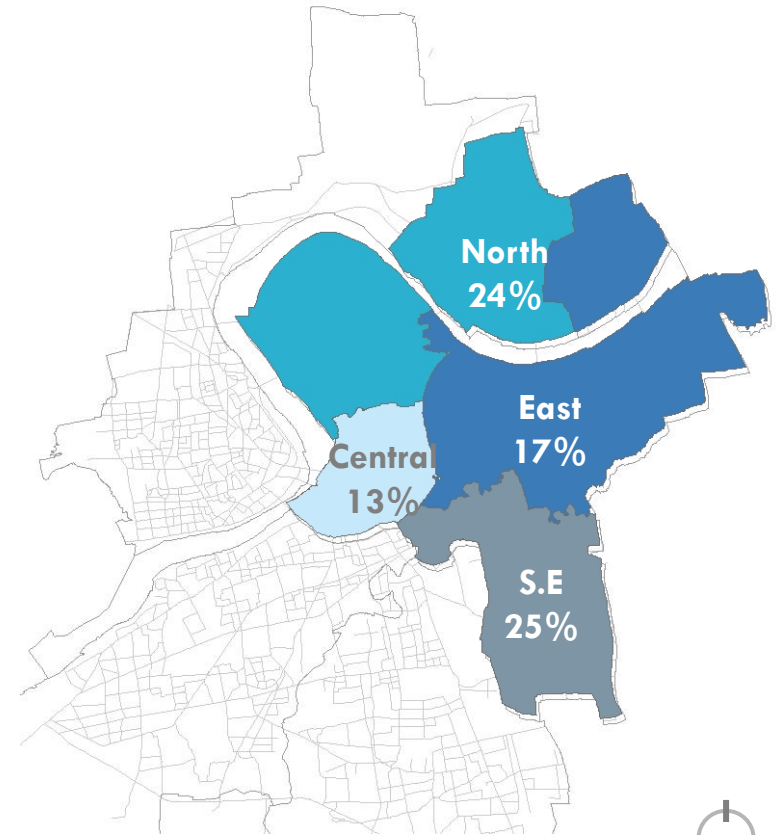
82% slums have less than 50% individual water and toilet connection

East Zone (54 slums)

95% slums have less than 50% individual water and toilet connection

Central Zone (15 slums)

80% slums have less than 50% individual water and toilet connection



Source: SMC, HFAPOA 2017

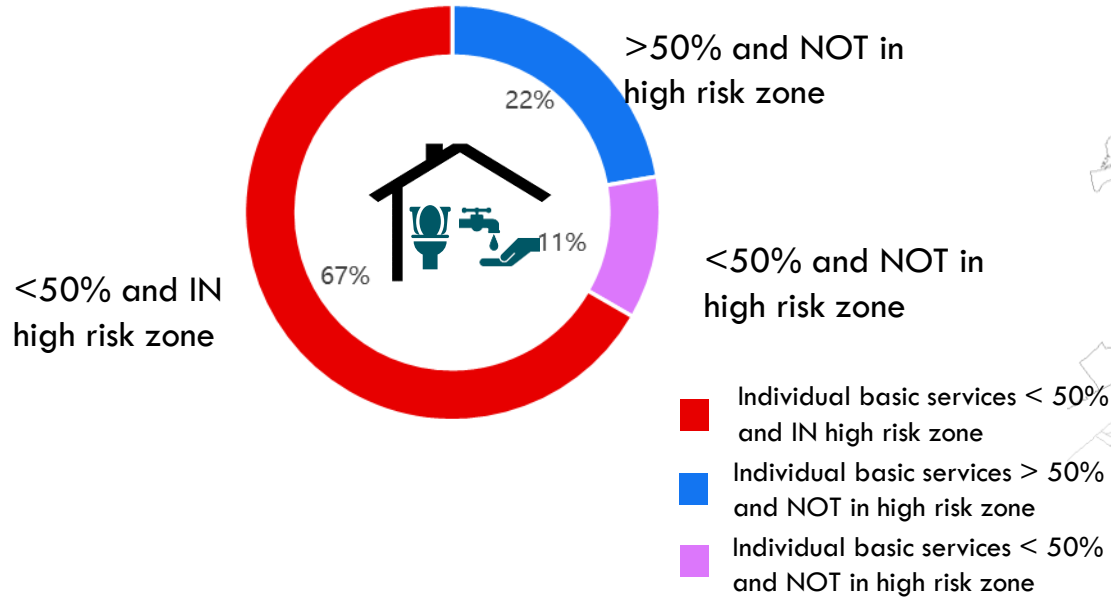
South - East Zone

South-east zone (Limbat, Adajan, Dindoli)

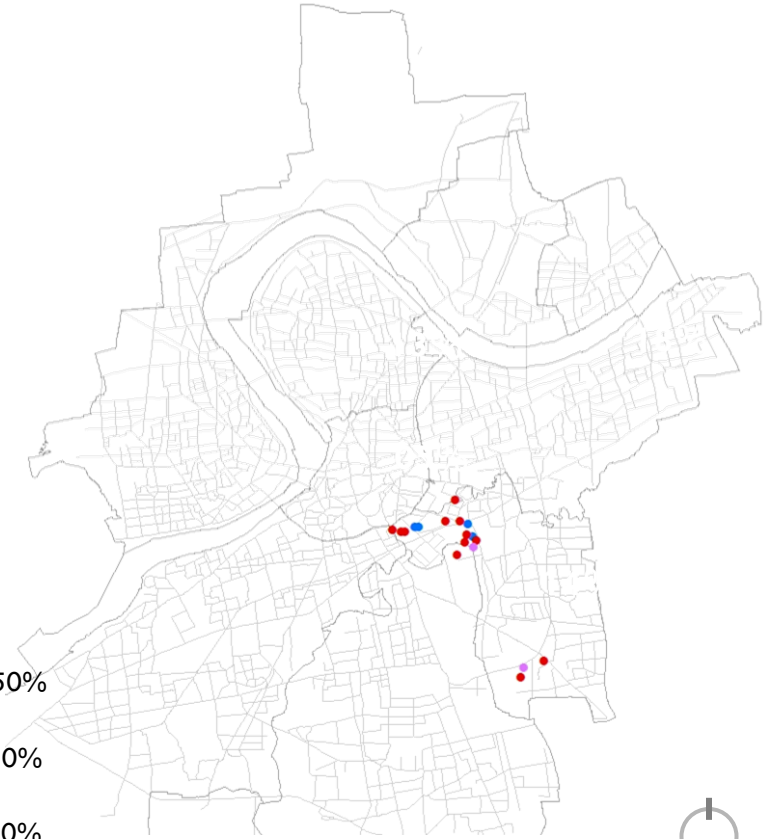
Samples considered: 18

Covid Cases: 25%

Covid cases and basic services



Source: SMC,HFAPOA 2017



*The Covid cases are considered till 22 June 2020

*The numbers presented in % are slums from selected samples

*The reflections are based on 2017 data and there is a possibility of construction of more individual toilets

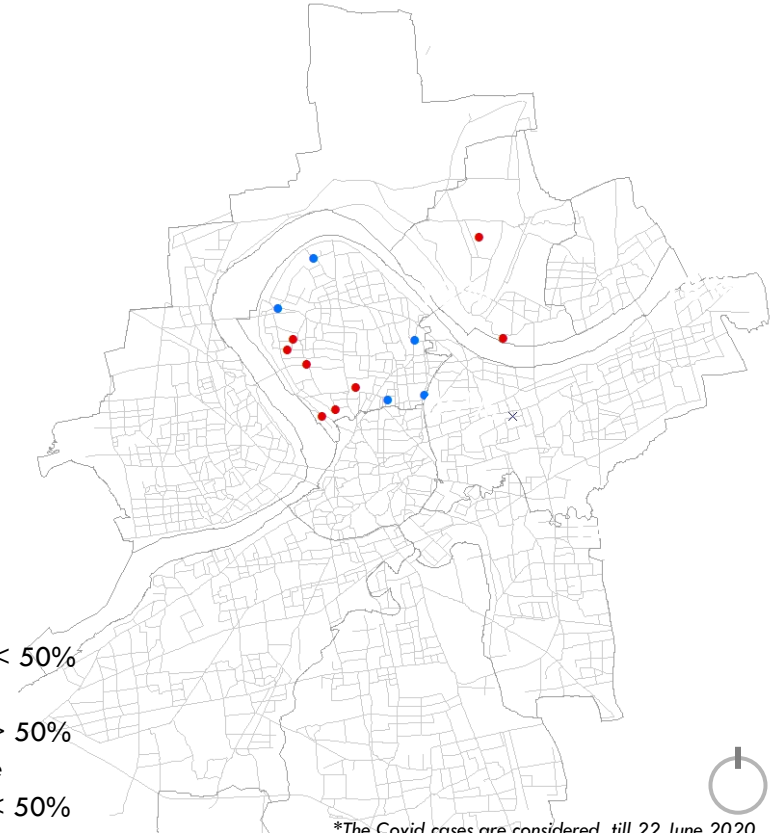
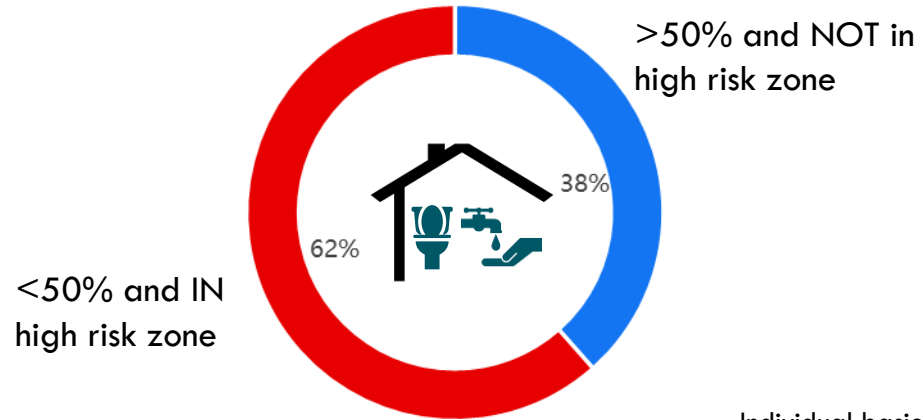
North Zone

North zone (Varackatargam, Singanpore, Ved)

Samples considered: 13

Covid Cases: 24%

Covid cases and basic services



- Individual basic services < 50% and IN high risk zone
- Individual basic services > 50% and NOT in high risk zone
- Individual basic services < 50% and NOT in high risk zone

*The Covid cases are considered till 22 June 2020

*The numbers presented in % are slums from selected samples

*The reflections are based on 2017 data and there is a possibility of construction of more individual toilets

Source: SMC,HFAPOA 2017

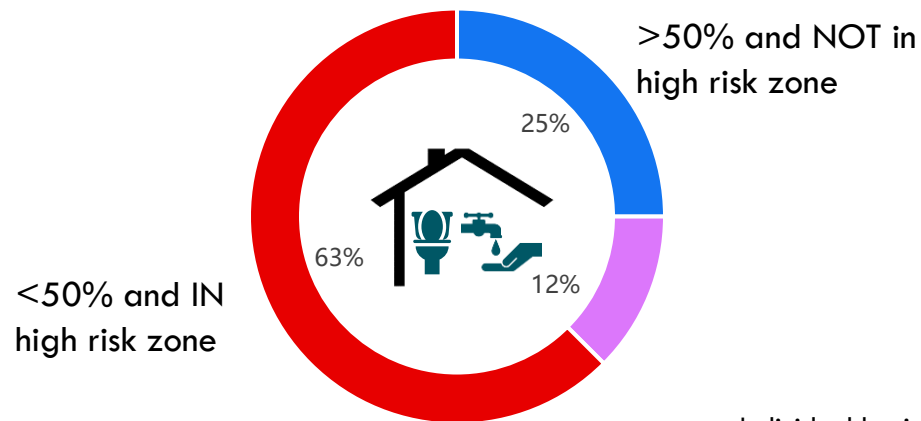
East Zone

East zone (Varaccha, Karanj, Fulpada)

Samples considered: 19

Covid Cases: 17%

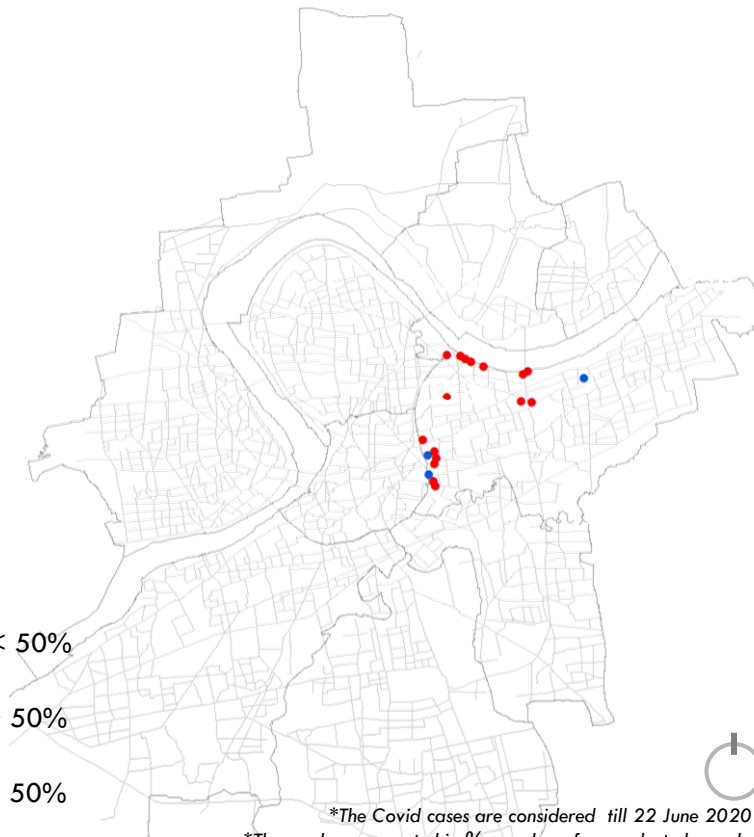
Covid cases and basic services



<50% and IN high risk zone

>50% and NOT in high risk zone

- Individual basic services < 50% and IN high risk zone
- Individual basic services > 50% and NOT in high risk zone
- Individual basic services < 50% and NOT in high risk zone



*The Covid cases are considered till 22 June 2020

*The numbers presented in % are slums from selected samples

*The reflections are based on 2017 data and there is a possibility of construction of more individual toilets

Source: SMC, HFAPOA 2017

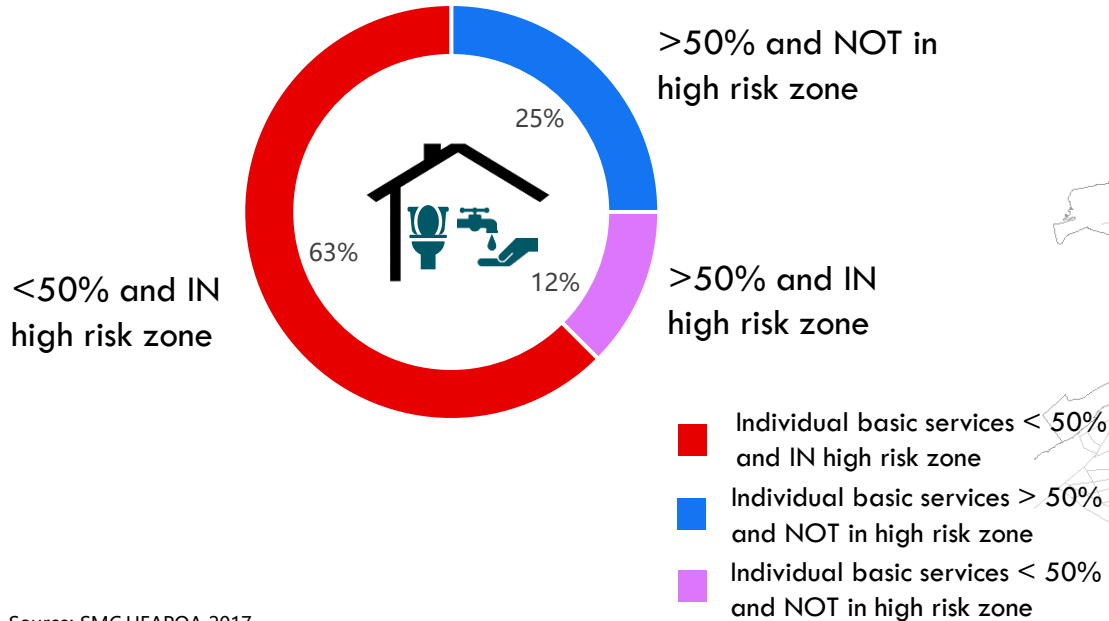
Central Zone

Central zone (Muglisara)

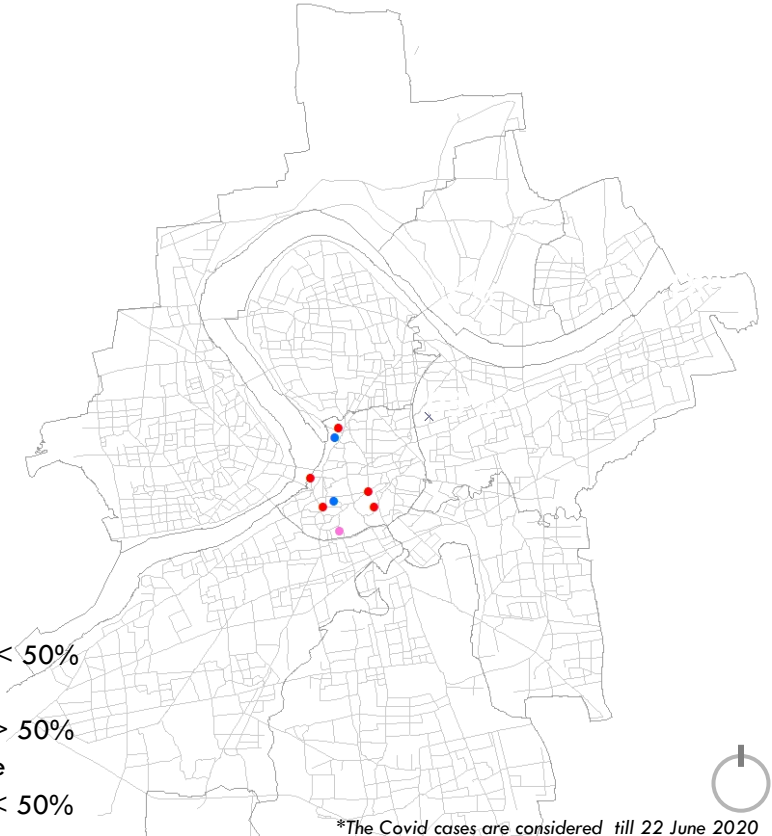
Samples considered: 08

Covid Cases: 13%

Covid cases and basic services



Source: SMC,HFAPOA 2017



*The Covid cases are considered till 22 June 2020

*The numbers presented in % are slums from selected samples

*The reflections are based on 2017 data and there is a possibility of construction of more individual toilets

Key Findings

- Majority of the slums in high risk zones are high density and have poor access to individual toilet and water connection.
- With Unlock the cases in Surat are increasing at high rate due to reopening of diamond industries without proper precautions.

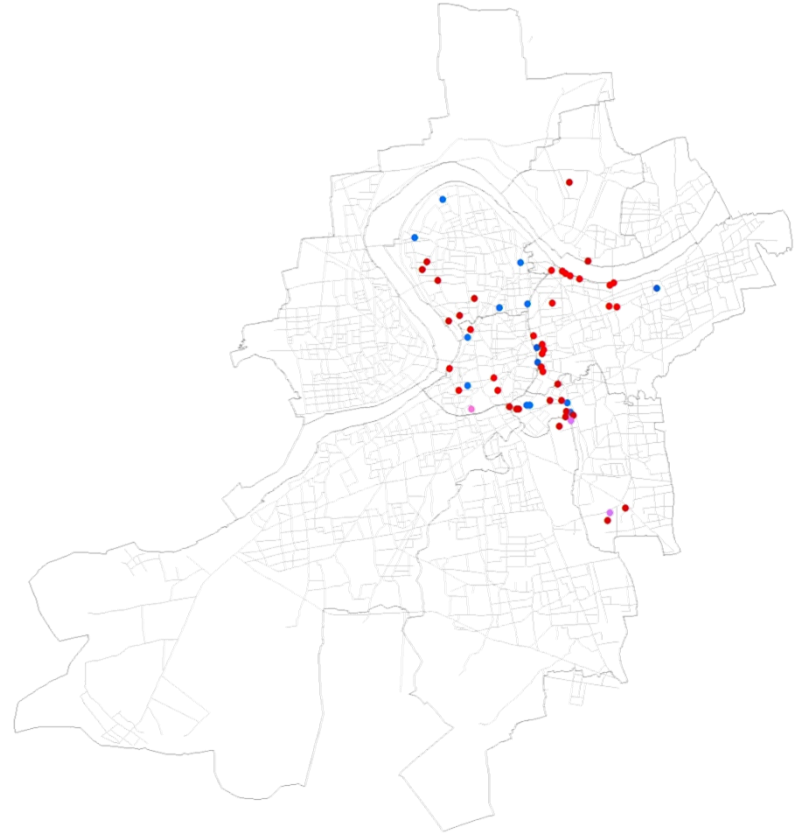


Table Of Contents

01

Context

Introduction and
Methodology



Impact of COVID
on vulnerable
groups

02

COVID and Urban slums

Impact on access
to basic services



Relation between
COVID cases and
slums of Pune, Surat



03

COVID and Sanitation
workers

Challenges faced
by Sanitation
workers



Telephonic surveys
of workers from
Pune, Sinnar

04

Response to COVID

Government
Advisories and
Global
Organization's
Recommendations



Best Case
Practices-
National and
International

05

Proposed
Recommendations

Recommendations for
Urban Slums

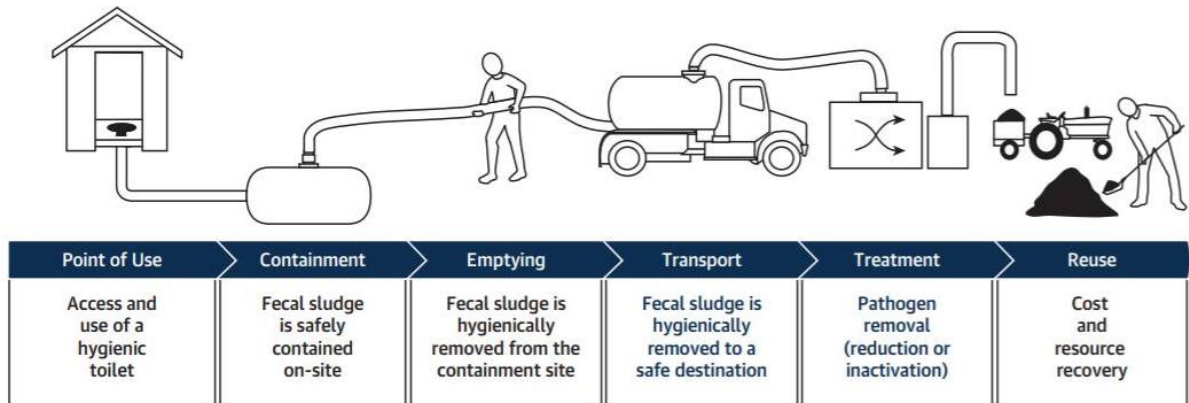


Recommendations
for Sanitation
Workers

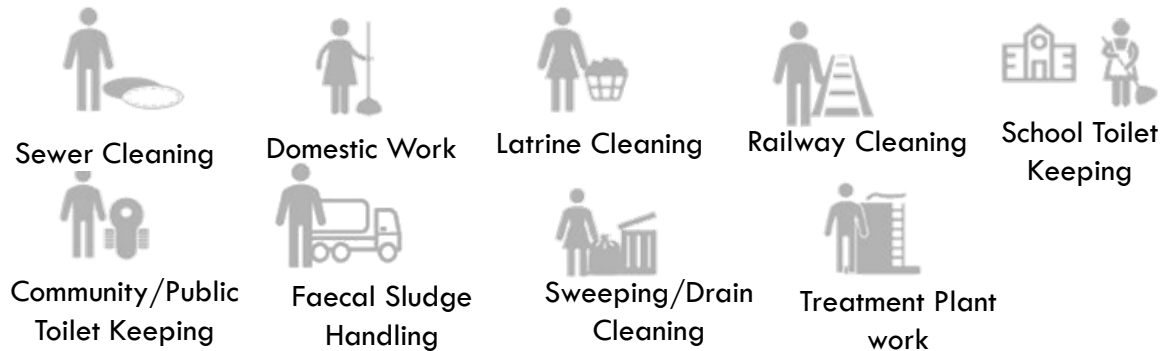
Introduction

- 5 million people are employed as sanitation workers with 9 types of works along sanitation chain
- 40% work in urban areas and are exposed at high risks

SANITATION CHAIN:



TYPE OF WORKS:

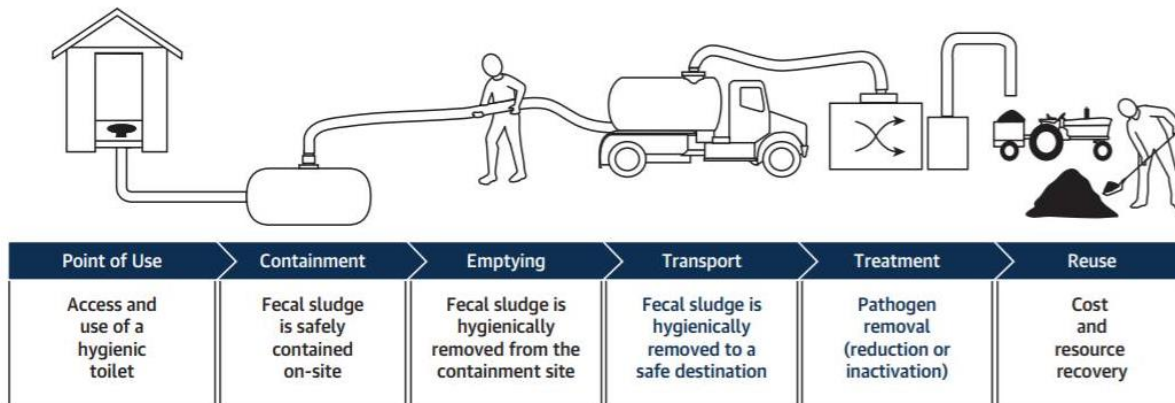


Source : Sanitationworkers.org

Introduction

- 5 million people are employed as sanitation workers with 9 types of works along sanitation chain
- 40% work in urban areas and are exposed at high risks

SANITATION CHAIN:



TYPE OF WORKS:



The telephonic surveys done focus on domestic waste collectors, sweepers, drain cleaners, supervisors as per availability of contact numbers and data

Source : Sanitationworkers.org

Impact of Covid on Sanitation Workers

Home / India / Fighting from the bottom, India's sanitation workers are also frontline workers battling Covid

Fighting from the bottom, India's sanitation workers are also frontline workers battling Covid

India's 40 lakh waste pickers in the informal sector and garbage collectors employed by states are at a direct risk of contracting Covid-19 as they come in contact with unsorted and unsegregated waste.

Home » Website » National » Opinion » Sanitation Workers: The Frontline Covid Warriors India Doesn't Talk About

Opinion

Sanitation Workers: The Frontline Covid Warriors India Doesn't Talk About

Written by ABHI

Let's talk about garbage in Covid battle and clap for India's sanitation workers

Wuhan's trash increased 6 times while it fought Covid. India's is on the rise too but we don't have enough treatment facilities or protection for sanitation workers.

DILIP MANDAL | 1 May, 2020 12:35 pm IST

Abandoned At The Frontline: India's Sanitation Workers Seek Immediate Help From The Government Amidst COVID-19

Amnesty International India
24 April 2020 7:33 pm

India's Sanitation Workers seek immediate help from the government, as they fight for better safety gears and equal treatment. Sign the appeal to urge the government to ensure their dignity and protection.

You can read this blog in Hindi or Tamil too.

COVID-19 pandemic is an unprecedented crisis that has affected the lives and livelihoods of millions of people around the world. People from economically weaker backgrounds are disproportionately affected, particularly in countries like India. In many countries, governments are scrambling to find ways to tackle the immediate health crisis, while also trying to set up a robust public health system – weakened by years of neglect and lack of funding.



- Increases working hours for sanitation workers at hospitals and quarantine centers
- Reduced working hours or loss of livelihood like schools for sanitation workers at public places
- Inadequate appropriate safety gears
- Discomfort at work due to heavy PPE
- Delay or reduction in payment
- Transport challenges due to unavailability of Public Transport
- Face social stigma though a part of frontline workers working in most vulnerable conditions.

Source: <https://amnesty.org.in/>, theprint.in, <https://indianexpress.com/>

Telephonic Survey Of Sanitation Workers - PUNE



Work Profile:
Garbage Collector
Contractual Employees



Telephonic Interview:
25



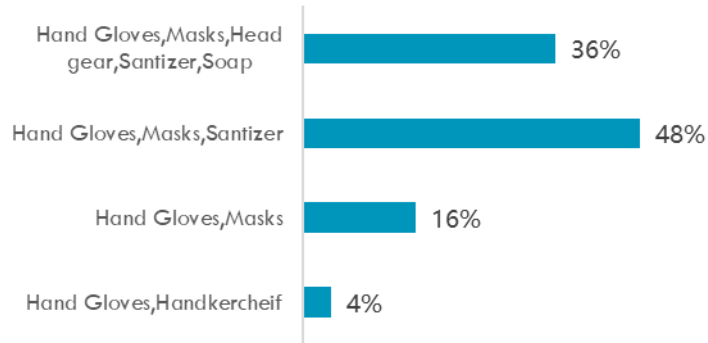
Gender Distribution:
Female **56%**
Male **44%**



Access to basic services
Individual toilet: **30%**
Water connection: **100%**

With same work profile PPE distributed varied

Types of PPE used

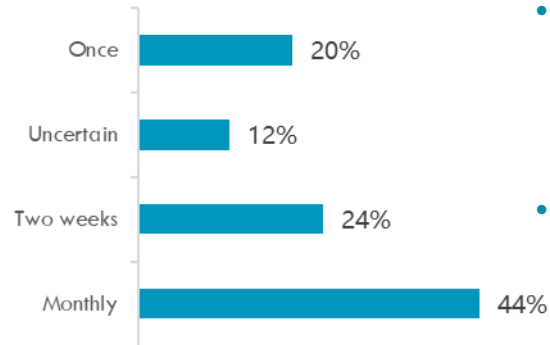


Limitations:

Only one type of work profile covered according to availability of contacts.

The PPE was provided to all the respondents but the frequency varied.

Frequency of provision of PPE



- **20%** respondent received safety gears only once and hence use handkerchiefs or low quality masks which are affordable.
- **44%** respondents receive PPE monthly but are provided 4 pairs and hence sufficient

None of the respondents were aware of any Health Insurance Scheme.

*The data collection is done between 11 July 2020 to 13 July 2020

Telephonic Survey Of Sanitation Workers – SINNAR



Telephonic
Interview: **15**



Gender Distribution:
Female **20%**
Male **80%**



Waste collector: **41%** Sweeper: **26%**



Drain Cleaner: **20%** Supervisor: **13%**

Permanent employees: **60%**
Contractual Employees: **40%**



Access to basic services

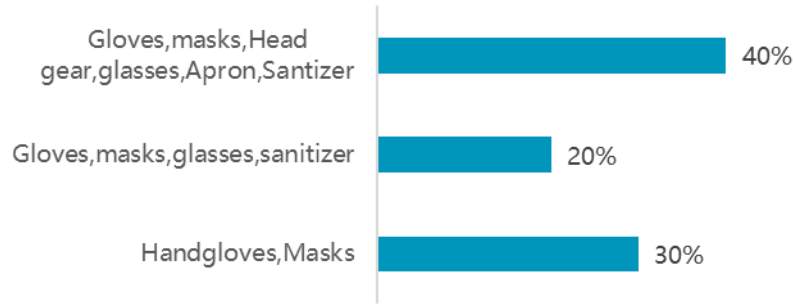
Individual toilet: **90%**

Water connection: **100%**

20% had water supply once in 4 days

The PPE was provided to 70% of the respondents but the frequency varied.

Types of PPE used



- **27%** respondent received safety gears only once and hence use handkerchiefs or low quality masks which are affordable.
- **47%** respondents receive PPE monthly but are provided 4 pairs and hence sufficient

20% of the respondents were aware of Health Insurance Scheme though media news

Limitations:

Four types of work profile covered according to availability of contacts.

*The data collection is done between 11 July 2020 to 13 July 2020

Testimonials

PUNE



“I have to segregate wet and dry waste **which has used masks, gloves**, I am constantly stressed in regards with safety and have requested the supervisors for proper hand gloves, masks and vaccinations against infections.”



“Sufficient masks and hand gloves are provided monthly. Hand washing stations are installed at various places at work. Though going to work daily is a risk our safety is taken care off.”

SINNAR

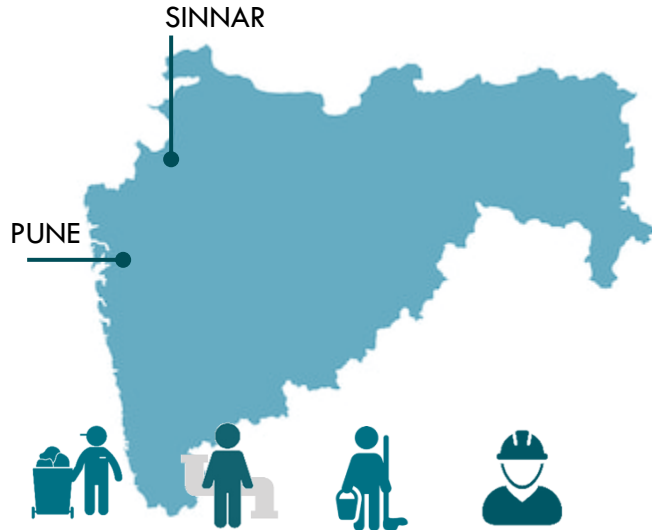


“Masks and gloves provided only once, no thermal screening or medical checkup, disinfect myself with spray (self provided) and then enter home”



“ **Permanent workers** are provided with mask gloves sanitizers but we are not”

Key Findings



- **47%** Respondents receive PPE monthly and are provided 4 pairs and hence sufficient in Pune
- Hand washing stations were installed on work sites in Pune
- 90% of workers had access to individual toilet back home in Sinnar which is **30% in Pune.**
- Almost 30% of workers in both cities used low quality masks or handkerchiefs as the PPE was provided only once.
- **Most of them weren't aware of Health insurance.**

Source: Pune Mirror

Table of Contents

01

Context

Introduction and
Methodology



Defining
Vulnerability

Impact of COVID
on vulnerable
groups

02

COVID and Urban slums

Impact on access
to basic services



Relation between
COVID cases and
slums of Pune, Surat

03

COVID and Sanitation
workers

Challenges faced
by Sanitation
workers



Telephonic surveys
of workers from
Pune, Sinner

04

Response to COVID

Government
Advisories and
Global
Organization's
Recommendations



Best Case
Practices-
National and
International

05






Proposed
Recommendations

Recommendations for
Urban Slums













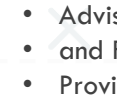
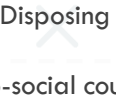
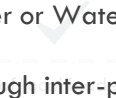
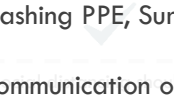

Recommendations
for Sanitation
Workers

Response to COVID - Government Advisories

| | | Hand Hygiene  | Access to Water  | Community Aid  | Toilet Hygiene  | Choice of Disinfectant  |
|-------------------|---|--|--|---|---|--|
| April 2020 | Office of Principal Scientific Advisor Guidelines for Hygiene and sanitation in densely populated areas, during the COVID | Included ✓ Remark: Install Foot Operated Handwashing Stations outside community toilet | Included ✓ Remark: Ensure water availability to communities | Included ✓ Remark: Co-manage and maintain handwashing stations with communities | Included ✓ Remark: Clean toilets with chlorine containing disinfectant by floor mopping, spraying thrice a day | Included ✓ Remark: Concentration of Chlorine based Disinfectant Solution to be used |
| April 2020 | Ministry of housing and urban affairs Advisory on safe management of water supply and sanitation services during COVID-19 crisis | Included ✓ Remark: Use an alcohol-based hand rub or soap and water after removing PPE | Not Included ✗ | Not Included ✗ | Included ✓ Remark: Toilet should be cleaned and disinfected at least twice daily by a trained cleaner wearing PPE | Included ✓ Remark: Sodium hypochlorite at 0.5% (equivalent to 5000 ppm) may be used for disinfecting surfaces. |
| May 2020 | Ministry of Health and Family Welfare Preparedness and response to COVID-19 in Urban Settlements | Not Included ✗ | Not Included ✗ | Included ✓ Remark: Use of local leaders for communicating prevention and control measures | Included ✓ Remark: Social distancing should be practiced in community water points and toilets | Not Included ✗ |





Source: <https://www.mohfw.gov.in/> | <https://www.cseindia.org/govt-advisories-and-guidelines-covid-19-10104>

Response to COVID - Government Advisories

| | Hand Hygiene | Access to Water | Community Aid | Toilet Hygiene | Choice of Disinfectant |
|--|--|--|---|---|---|
| April 2020 Office of Principal Scientific Advisor Guidelines for Hygiene and sanitation in densely populated areas, during the COVID |  ✓ Install Foot Handwashing Stations outside community toilet |  ✓ Provide access to water to communities |  ✓ Provide handwashing stations with communities |  ✓ Clean toilets with chlorine containing disinfectant by floor mopping, spraying thrice a day |  ✓ Concentration of Chlorine based Disinfectant Solution to be used |
| April 2020 Ministry of housing and urban affairs Advisory on safe management of water supply and sanitation services during COVID-19 crisis |  ✓ Use an alcohol-based hand rub or soap and water after removing PPE |  ✗ |  ✗ |  ✓ Toilet should be cleaned and disinfected at least twice daily by a trained person wearing PPE |  ✓ Sodium hypochlorite at 0.5% (equivalent to 5000 ppm) may be used for disinfecting surfaces. |
| May 2020 Ministry of Health and Family Welfare Preparedness and response to COVID-19 in Urban Settlements |  ✓ Wash hands with soap and water for at least 20 seconds |  ✗ |  ✓ Communicate prevention and control measures |  ✓ Disinfection should be practiced in community water points and toilets |  ✗ |









Source: <https://www.mohfw.gov.in/> | <https://www.cseindia.org/govt-advisories-and-guidelines-covid-19-10104>

Response to COVID - Global Organization's Recommendations

| | | Hand Hygiene | Access to Water | Awareness | Financial Support |
|----|---|--|---|--|--|
| 01 | The World Bank |  ✓ |  ✓ |  ✗ |  ✓ |
| | Wash and Covid-19 | Communication and preparedness related to handwashing behavior change and promotion | Short-term water provision | | Financial support to beneficiaries to ensure the continuity of WASH |
| 02 | SIWI | ✗ | ✓ | ✓ | ✓ |
| | Water & Sanitation response to Covid-19 | | Ensure the continuity and safety of water and sanitation services | Raise public awareness about hand hygiene | Provide practical and financial support to water and sanitation service providers |
| 03 | World Bank Group | ✗ | ✗ | ✓ | ✗ |
| | COVID-19 and the Urban Poor Addressing those in slums | | | Awareness campaigns, with consumer-focused social marketing approaches for handwashing | |

Source: <https://www.siwi.org/what-we-do/water-sanitation-response-to-covid-19/> | <https://www.worldbank.org/en/topic/water/brief/wash-water-sanitation-hygiene-and-covid-19> | <https://www.worldbank.org/en/topic/urbandevelopment/coronavirus>

Response to COVID - Global Organization's Recommendations

| | | Hand Hygiene | Access to Water | Awareness | Financial Support |
|----|---|---|--|--|--|
| 01 | The World Bank |  |  |  |  |
| | Wash and Covid-19 | ✓ Communication and preparedness related to handwashing behavior change and promotion | ✓ Short-term water provision | ✗ | ✓ Financial support to beneficiaries to ensure the continuity of WASH |
| 02 | SIWI |  |  |  |  |
| | Water & Sanitation response to Covid-19 | ✗ | ✓ Ensure the continuity and safety of water and sanitation services | ✓ Raise public awareness about hand hygiene | ✓ Provide practical and financial support to water and sanitation service providers |
| 03 | World Bank Group | Long term recommendations | | | |
| | COVID-19 and the Urban Poor Addressing those in slums | 01 Investments in strengthening infrastructure, risk assessments, early warning systems, linkages across agencies | | 02 Scale up slum upgrading for building longer term resilience to shocks such as COVID | |

Source: <https://www.siwi.org/what-we-do/water-sanitation-response-to-covid-19/> | <https://www.worldbank.org/en/topic/water/brief/wash-water-sanitation-hygiene-and-covid-19> | <https://www.worldbank.org/en/topic/urbandevelopment/coronavirus>

Response to COVID – BMGF Recommendations



Reduce congestion in spaces of congregate for basic services

- Installation of **Water ATMs**
- **Coupon-based water collection** system in the slums where tankers are used to supply
- **Mobile toilets** with safe containment and handwashing facilities with foot-operated taps
- **Monitor adequate water storage**, and timely waste collection at the CT/PTs



Community Institutions can act as Slum Level Response Teams

- Plan **emergency response plans** for the settlement
- Feedback loops with decision makers and responsive to **community's evolving needs**



Creatives developed for slums to resonate with the local community

- Animated video series through WhatsApp on:
Mask wearing
Social Distancing
Aarogya Setu App



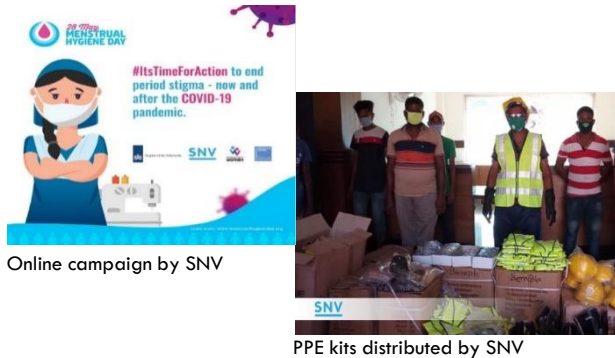
Source: Key Considerations: COVID-19 in Urban Low-Income/Informal Settlements, Bill & Melinda Gates Foundation

Case Studies - International

Bangladesh:

SNV Development Organization initiatives:

- PPE distribution to Sanitary workers
- Handwashing facilities in the community and installing washbasins
- Launched 7days online Menstrual Hygiene campaign on Menstrual Hygiene Day(28 May) to create awareness.
- ELLAPAD created reusable face masks from scraps of textiles and distributed them for free in Bangladesh.



Online campaign by SNV

PPE kits distributed by SNV

Kenya:

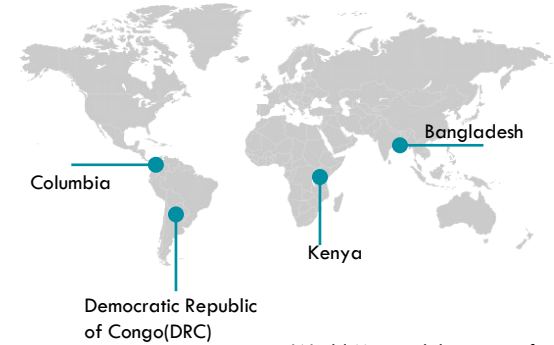
- Nairobi Metropolitan Services has announced free water distribution through water tanker trucks
- Gov has asked not to disconnect water for city residents because of pending bills.
- NGOs are assisting in water truck delivery and set up hand-washing stations

DRC:

- Large water storage containers are being supplied by tanker trucks.
- New handwashing stations in public locations such as densely populated areas and large intersections are financed.
- Community networks are supporting these efforts.

Columbia:

- Government reconnected +200,000 HH with free water that were disconnected due to non-payment.
- Distributed water with new network of hydrants to 9370 families.
- Development banks are offering service providers different credit facilities to cover non-payments from vulnerable households.



World Map with locations of case-studies highlighted

Source: snv.org, ellapad.org | COVID-19 related knowledge, attitudes,practices and needs of households in informal settlements in Nairobi, Kenya Report submitted to WHO

Case Studies - INDIA

Andhra Pradesh

- Authorities are providing **mobile hand wash facility** for slum dwellers
- Fitted a water tanker to a vehicle, with four tap connections and four wash basins.
- Two soap dispensers are also fitted to the installation.
- Awareness campaign in Parvathipuram City



Handwashing stations



Awareness Campaign

Source: IndiaWaterPortal.org

Maharashtra- Mumbai

- MCGM instructed the CBOs(1200) to allow the use of toilets at no cost increasing foot fall by 20%
- MCGM has not waved off electricity and water bills for the toilets and also does not provide essential cleaning materials

Triratna Prerna Mandal (TPM)

- Working with **150 CBOs** to spread awareness about Covid-19 among communities in partnership with CACR with support from **UNICEF Maharashtra Office**
- Distributed **cleaning solutions** like bleaching liquid, liquid hand wash to about 60 CBOs, covering nearly 150 toilet operators and cleaners.
- Provided **No hand touch pedal operated hand washing stations**
- **Training of CBOs and sanitary inspectors** were carried out.
- Leveraging **resources from corporates** for continuous supply of liquid soap, disinfectants

SPARC

- Regular **cleaning and sanitizing of community toilets** monitored by SPARC
- Distributed **soap and sanitizers at large scale, specifically in MUMBAI**

Dharavi Model

- Followed the principle of **4Ts**, i.e., Tracing, Tracking, Testing and Treating
- All the **local practitioners** were provided with PPEs, thermal scanners and finger pulse oximeters.
- **Quarantine/isolation**, facilities were started in **Dharavi** itself encouraging co-operation in getting quarantined and treated.
- **80% of the population in Dharavi depended on community toilets.**
- Local public toilets were sanitized **at least 3 times a day** and strict containment and control of movement of people was ensured.
- Nearly **1,800- plus sanitation workers** were deployed to clean community toilets, pick up solid waste and sweep the area.

COVID-19 IN DHARAVI

NGO RNisarg Foundation

The NGO's initiative supported 1800 plus sanitation workers employed in Dharavi by three interventions:

01

Immediate Need

- Provision of PPE
- Education for protection/prevention to a sanitation worker
- Distribution of hand sanitizer and Sodium Hypochlorite

02

Build Morale And Immunity

- Distributed Ayurvedic medicines. Distributed Homeopathic medicines.
- Distribution of Parle Glucose biscuits

03

Long term measure to help screen COVID suspects

- Provision of Pulsoximeters: 26 Chowkies of G North

Source: <https://futuremedicineindia.com/dharavi-an-unlikely-role-model/>, <https://rnisargfoundation.com/>

Government Advisories for Sanitation Workers

March
2020

Ministry of Health
and Family Welfare
Guidelines on rational use
of Personal Protective
Equipment

- 1 Details on Components of PPE
- 2 Rational use of PPE for sanitation according to the activities the workers are involved in

April
2020

National Safai Karamcharis Finance
& Development Corporation
Ensuring Health and Safety of
Sanitation Workers and Waste-
pickers in the wake of spread of
COVID-19

- 1 Guided ULBs to prepare SOP for Mandatory orientation and key precautionary measures
- 2 List of Do's and Don'ts during work Providing PPE
- 3 Providing appropriate Personal Protective Equipment's, which may include masks, gloves, gumboots, jackets etc. and hand sanitizers, soaps for their safety.

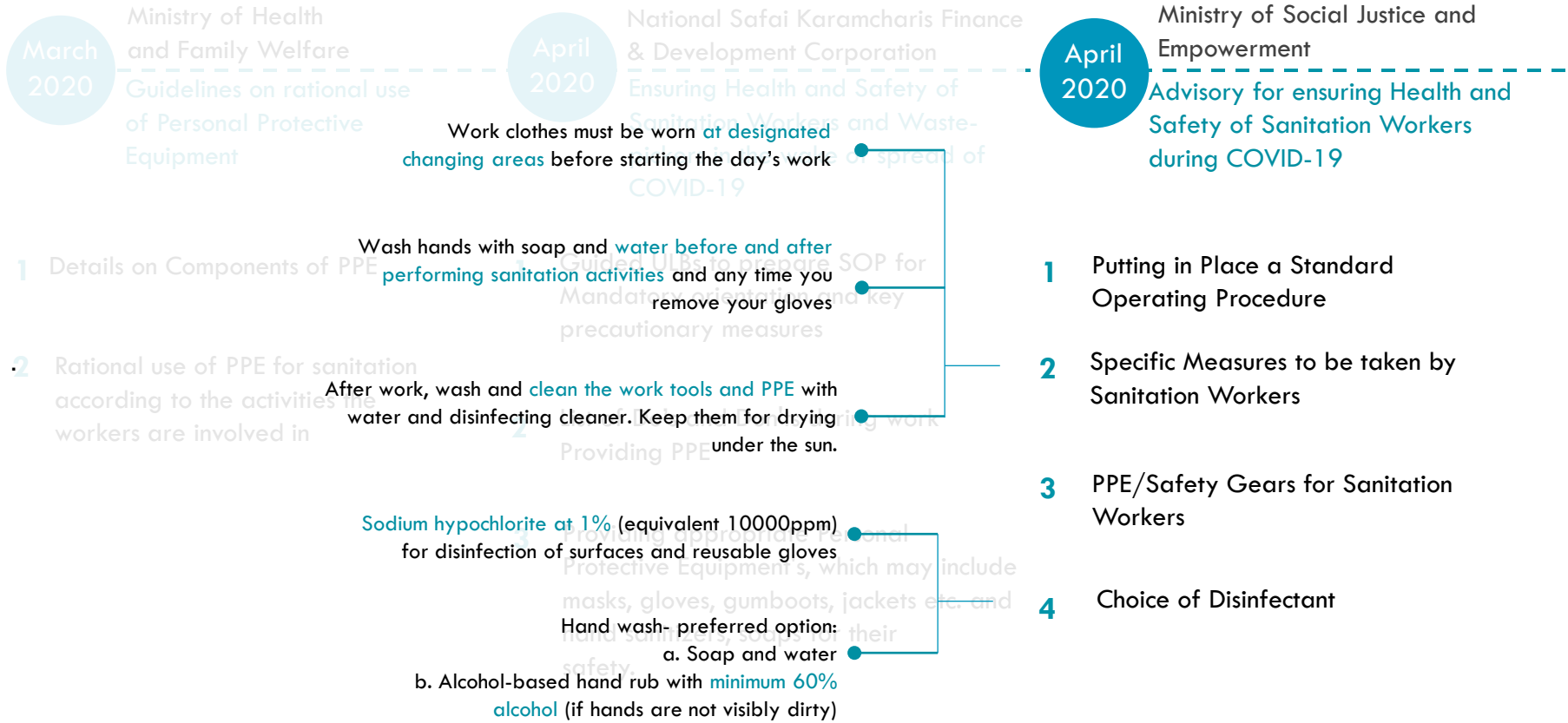
April
2020

Ministry of Social Justice and
Empowerment
Advisory for ensuring Health and
Safety of Sanitation Workers
during COVID-19

- 1 Putting in Place a Standard Operating Procedure
- 2 Specific Measures to be taken by Sanitation Workers
- 3 PPE/Safety Gears for Sanitation Workers
- 4 Choice of Disinfectant

Source: <https://scbp.niua.org/sanitation-workers-safety-and-handwashing/>

Government Advisories for Sanitation Workers



Source: <https://scbp.niua.org/sanitation-workers-safety-and-handwashing/>

Pradhan Mantri Garib Kalyan Package 2020

Newspaper article



The announcement was part of a slew of measures announced by the finance minister under the Pradhan Mantri Garib Kalyan Package.

| COVID-19 CASES | | Confirmed | Deaths |
|----------------|-------|-----------|--------|
| India | World | 673,165 | 19,268 |

The government today approved the insurance scheme for **health workers** fighting the novel coronavirus. Finance minister **Nirmala Sitharaman**, on March 26, announced a Rs 50 lakh insurance cover per person for frontline health workers involved in managing the **Coronavirus** (COVID-19) outbreak. The announcement was part of a slew of measures announced by the finance minister under the Pradhan Mantri Garib Kalyan package.

"The medical insurance scheme would include sanitation staff, doctors, Asha workers, paramedics and nurses. These professionals are not considering their own health risks and have been attending to

Official Document from MOHFW

Who all are covered under the scheme

- **Public healthcare providers** including community health workers who may have to be in direct contact and care of COVID-19 patients
- **Private** hospital staff and retired /volunteer /local urban bodies/ **contracted /daily wage/**adhoc/outsourced staff requisitioned by States/ Central hospitals etc.

The New India Assurance is providing the insurance and they aren't notified to consider Sanitation workers at all till now.

Press Interview

- The press interview by Finance Minister mentions sanitation workers in government hospitals only.

Source: <https://economictimes.indiatimes.com/> | <https://www.mohfw.gov.in/>

Government Interventions



TELANGANA

- Provisions of MoHUA and MoHFW advisory for sanitation followed by ULB
- Workers Monthly performance incentive of INR 500 to top 20 workers.
- One time monetary benefit Rs.5000-7500.
- Hand sanitizer (500 ml) provided to all sanitation workers.
- Regular orientation and on-the-job training provided to the sanitation workers through sanitary jawans.



MAHARASHTRA

- Maharashtra Government Extended **Rs. 50 Lakh Insurance** Cover To Contractual Workers, Daily Wagers which did not include sanitation workers.
- They were included only after the protest by MNS leaders and sanitation workers.



AMRITSAR

- HDFC Bank in collaboration with Municipal Amritsar Corporation opened **zero balance and savings account for each employee**
- Rs30 lakh would be insured in case of accidental death
- Rs3.25 lakh in case of natural death



GUJARAT

- Paid leaves and INR 10,000 if a sanitation worker falls ill(permanent employees)
- **Compensation in case of death: 25lakhs**



RAJASTHA

- State order for Rs1000 per worker for PPE
- Supervisors **shared information** with sanitation workers during **regular work discussions**
- No formal training session acc to UMC survey

Source: <https://hnews.in/> | Health, Safety and Livelihoods Challenges of Sanitation Workers in COVID-19 context Report, UMC, WaterAid India | <https://twitter.com/>

Key Findings

Urban Slums

- Toilet should be **cleaned and disinfected** at least twice daily by a trained cleaner wearing PPE
- Co-manage and maintain handwashing stations with communities.
- Use of **local leaders for communicating** prevention and control measures
- Rapid, low-cost water service provision for communities
- Investments in strengthening infrastructure, risk assessments, early warning systems, linkages across agencies.

Sanitation Workers

- List of Do's and Don'ts during work
Providing PPE
- **Rational use of PPE** for sanitation according to the activities the workers are involved in.
- **Raise the profile of sanitation workers** and acknowledge their importance as frontline warriors.
- Resident Welfare Associations (RWAs) should ensure that sanitation workers who work in their localities have proper PPE.

Table of Contents

01

Context

Introduction and
Methodology



Defining
Vulnerability

Impact of COVID
on vulnerable
groups

02

COVID and Urban slums

Impact on access
to basic services



Relation between
COVID cases and
slums of Pune, Surat

03

COVID and Sanitation
workers

Challenges faced
by Sanitation
workers



Telephonic surveys
of workers from
Pune, Sinnar

04

Response to COVID

Government
Advisories and
Global
Organization's
Recommendations



Best Case
Practices-
National and
International

05

Proposed
Recommendations

Recommendations for
Urban Slums



Recommendations
for Sanitation
Workers

Proposed Recommendations – Urban Slums



HAND HYGIENE

- Install **foot operated handwashing stations** with adequate hand washing soaps and running water
- Encourage **local residents and vendors** to come up with innovative manufacturing and assembling of models
- Monitoring the use of hand washing stations by **SHGs and community leaders**.
- Employer should provide hand washing stations and clean-disinfected public toilets in the **resuming work areas**.



TOILET HYGIENE

- Disinfect toilets **thrice a day** specifically the **points of human contacts** like door handles, taps, buckets
- Caring **individual bucket** to the toilet may help in reduction of human contact.
- **Alternate solution for using buckets** should be explored e.g. foot operated flush
- Open up public toilets from **nearby public institutions** to avoid overcrowding with migrants returning post Lockdown



COMMUNITY AID

- Hygiene Awareness campaigns through **illustrations and videos** by **community leaders** as a first step to imbibe behavioral change.
- **Capacity building** of SHGs and CBOs assist and monitor the **implementation of guidelines**

Proposed Recommendations – Urban Slums

Strengthen access to individual water supply and toilet construction

With the help of data prioritize the settlement based on its vulnerability and provide the deficient services. Focus on providing all the required basic services instead of rolling out individual schemes at macro-level.

01. Individual water connection with adequate clean water supply should be taken care off



02. Individual Toilets should be constructed wherever possible

Systematic

functioning of toilet

Operational
Maintenance

Carrying waste water through adequate conveyance system

Treatment and re-use of treated water

03. Shared toilets among three households can be proposed to overcome space constraints

Shared toilet will help in proper functioning and cleaning of toilets as it will be the responsibility of the families using it



04. Constructing or upgrading community toilets in high density areas where individual/shared toilets aren't an option

1. Relook the norm of 1:50 seats per person ratio
2. Continuous water supply in the toilets should be a mandate.
3. Minimize human contact with foot operated hand washing stations and flush
4. Adequate hand washing soap and use of appropriate disinfectant for cleaning toilets is essential.

05. Empower SHGs and CBOs to maintain the toilets

1. Involve SHGs and slum dwellers from the initial stage of construction
2. Ownership of toilet to imbibe sense of belonging in the community
3. Financial support to SHGs/CBOs to fight shocks
4. Capacity building and training of SHGs/CBO

Proposed Recommendations – Urban Slums

Strengthen access to individual water supply and toilet construction

With the help of data prioritize the settlement based on its vulnerability and provide the deficient services. Focus on providing all the required basic services instead of rolling out individual schemes at macro-level.

01. Individual water connection with adequate clean water supply should be taken care off



02. Individual Toilets should be constructed wherever possible

Systematic functioning of toilet

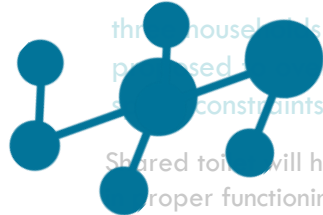
Operational Maintenance



Treatment and re-use of treated water



03. Shared toilets among three households can be preferred to overcome space constraints



Shared toilet will help proper functioning and cleaning of toilets as it will be the responsibility of the families using it



04. Constructing or upgrading community toilets in high density areas where individual/shared toilets are not possible

Interlinkages are key!

1. Relook the norm of 1:50 seats per person ratio
2. Continuous water supply in the toilets should be a mandate.
3. Minimize human contact with foot operated hand washing stations and flush
4. Adequate hand washing soap and use of appropriate disinfectant for cleaning toilets is essential.



05. Empower SHGs and CBOs to maintain the toilets

1. Involve SHGs and slum dwellers from the initial stage of construction
2. Ownership of toilet to imbibe sense of belonging in the community
3. Financial support to SHGs/CBOs to fight shocks
4. Capacity building and training of SHGs/CBO

Proposed Recommendations – Sanitation Workers

Sort Term Measures

1. Provision, and replacement of PPEs according to the requirements of work profile
2. Training of workers to reuse/dispose PPEs
3. Monitoring of usage of provided PPEs
4. Provide Life and Health insurance to all types of sanitation workers.
5. A clause should be added in contract of contractual employees regarding paid sick leave and health insurance.
6. Announcing small monthly grants or incentives for top performing wards or individuals.
7. Handwashing stations should be installed at work places and sites.
8. Providing Immunity boosters to uplift the morale.
9. Daily thermal screening of the workers so that the suspects are identified at initial stage.
10. Counselling session to boost mental strength and release fear in minds of workers.

Long Term Measures

1. Create awareness and educate them on importance of health insurance.
2. Central assistance to the Insurance providers may encourage them to roll out short term policies with incentives.
3. A clause should be added in contract of contractual employees regarding paid sick leave and health insurance.
4. Organization of health camps at regular intervals.

- **Capacity building** of ULBs and Sanitation workers through webinars, digital posters, to deal with shocks and implement protocols and guidelines.
- **Public awareness** on dignity of workers and acknowledgment through media, digital posters, social media campaigns



You are absolutely right! I am scared of going to the community toilet. Wish I had constructed an individual toilet

Please consider constructing individual toilet! Using community toilet isnt safe anymore!!

Inadequate access to basic services like water and sanitation or lack thereof make urban slum dwellers extremely vulnerable to the pandemic. Community toilets are rarely disinfected and usually overcrowded making them unsafe for regular use. Hence construction of individual household toilets must be prioritized.

Source: www.shutterstock.com



अगदी बरोबर! मला सार्वजनिक शौचालयात जाण्याची भीती वाटते. मी स्वतंत्र शौचालय बांधले असते तर बरे झाले असते.

स्वतंत्र शौचालय बांधण्याचा विचार कर जरा. सार्वजनिक शौचालय वापरणे आता सुरक्षित नाही

पाणी आणि स्वच्छता यासारख्या मूलभूत सेवेची अपुरी उपलब्धता किंवा त्याअभावी शहरी झोपडपट्टीवासीय साथीच्या आजारासाठी अत्यंत असुरक्षित बनतात. सार्वजनिक शौचालय क्वचितच निर्जंतुकीकरण केले जातात आणि अति गर्दीमुळे ते नियमित वापरासाठी असुरक्षित बनतात. म्हणूनच वैयक्तिक घरगुती शौचालयांच्या बांधकामाला प्राधान्य देणे आवश्यक आहे.

THANK YOU

snehal.pg190958@cept.ac.in