COVID-19 Appropriate Behaviors Surveillance Survey

For the Ministry of Health and Family Welfare, Government of Delhi

Breaking the cycle of complacency

National Center for Disease Control and UNICEF India

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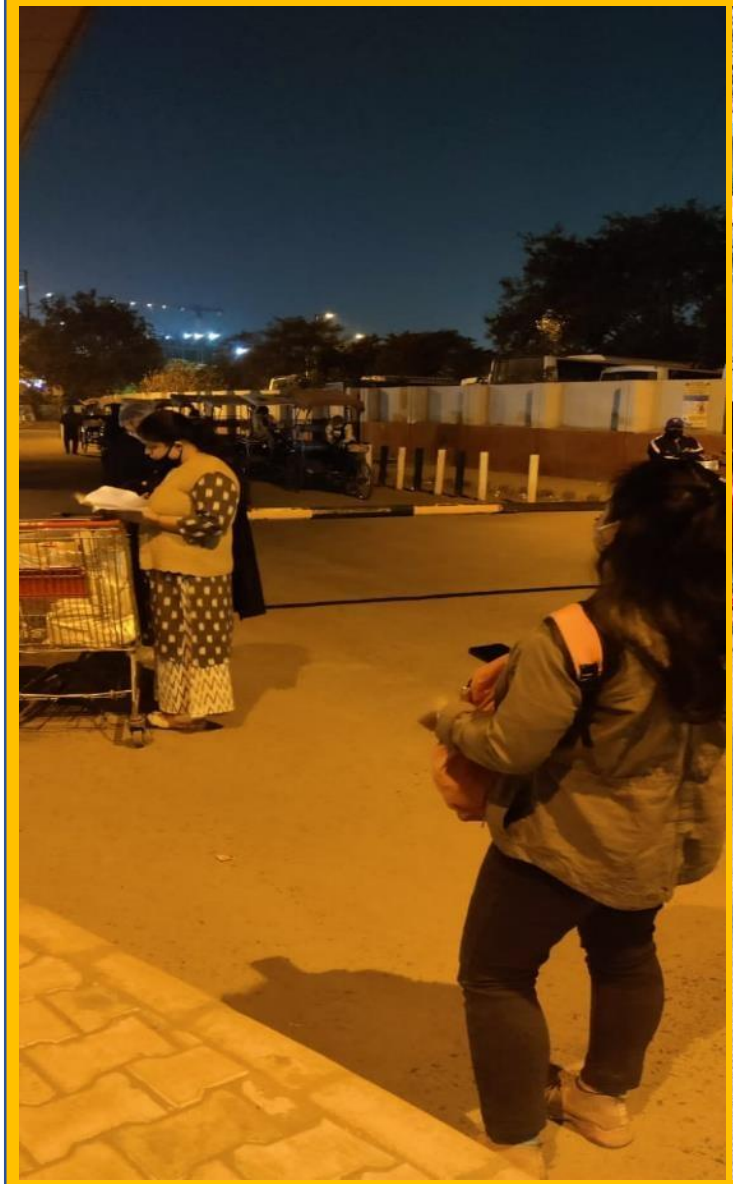
Developed with the support of:

- Envisions Institute of Development
- Doctors for You

Breaking the Cycle of Complacency is a report of a Behavioral Survey conducted by National Center of Disease Control (NCDC) to support Government of Delhi). While this report outlines the emerging key behavioral issues, it also shares process used for planning and implementation of the survey which could guide the institutionalization of the Behavioral Surveillance on COVID-19 and other infectious diseases under NCDC in future. The findings from this survey will also help to re-programme COVID-Risk Communication and Community Engagement (RCCE) initiatives, identify issues that are making populations more complacent with harmful practices and guide forthcoming policies intended to curtail the COVID-19 transmission.

Acknowledgments

UNICEF India Communication For Development team would like to thank National Centre for Disease Control, the Director, Department of Epidemiology and IDSP; and Government of Delhi in their guidance to conceptualize and roll-out India's first COVID-19 Behavioural Surveillance Survey. Special thanks are also due to our partners Doctors for You and Envisions Institute of Development for their expertise in data collection, analysis and reporting key findings to the government and NCDC.



Abbreviations & Acronyms

AIIMS- All India Institute of Medical Sciences

BSS- Behavioural Surveillance Survey

COVID-19 - Corona Virus Disease 2019

CAB- COVID-19 Appropriate Behaviours

IEC- Information, Educational and Communication

MOHFW- Ministry of Health and Family Welfare

NCDC- National Centre of Disease Control

RCCE- Risk Communication and Community Engagement

SOP- Standard Operating Principle

USA- United States of America

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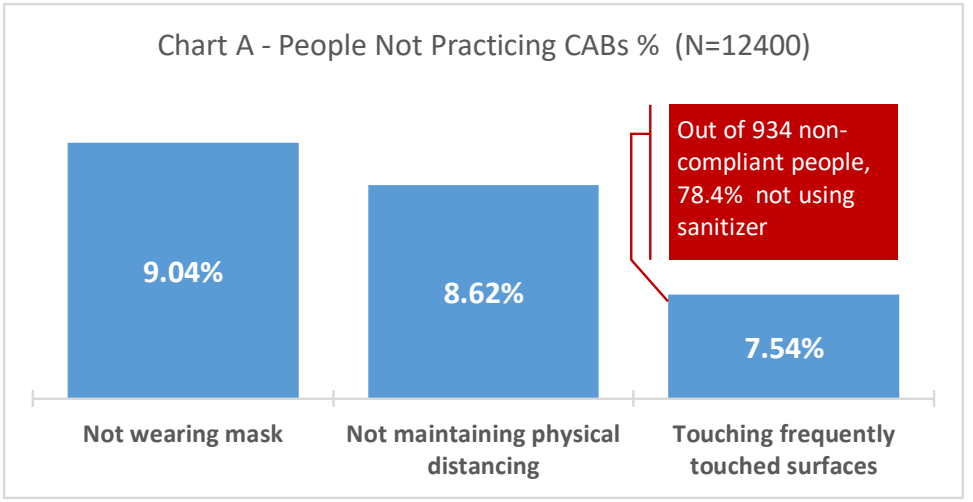
Executive Summary

This report presents the findings from a survey on COVID appropriate behaviours in Delhi. A sample of 13008 comprising of 12400 observations and 608 interviews was collected across all eleven districts in Delhi. Sample was collected from metro stations, railway stations, bus stands in transport category, malls, open markets, religious places, and gyms and food courts in the malls. There were 54% males and 46% females in the observed sample. About 30% children, 36% youth and 35% adults comprised the sample. So, the sample was representative of gender and age profile. COVID appropriate behaviours in this report are discussed under two heads: (I) Impacting CAB – those behaviours which are 'all time crucial' and have a direct impact on transmission and (II) Impelling CAB – those behaviours which could be 'situational' but they drive the practice of impacting behaviours.

Impacting CABs

Incorrect Wearing of Masks: Data showed that about 9.04% (Chart A) of the subjects were not wearing mask correctly. Non-compliance was lower (47%) among women than men (53%). Adults are better with least non-compliance (32%) followed by youth (33%) and children (35%). It is observed that:

- Highest percentage of people not wearing masks properly was in the public transport (11%), and the
- Lowest non-compliance on this impelling CAB was in malls (6%).



Most common reason for incorrect wearing of mask was, ***"My ears start paining due to elastic band"***.

Low compliance to SoPs as per the unlocking guidelines was visible across all key locations and points. Facilities to dispose masks and face covers were more provided at the entry and less at other points of interaction like money counter, exit, and spots which are the main point of action (i.e. where individuals are expected to spend time such as in exercising, purchasing, or ordering food or worshiping). While there is a need to over-all scale-up provision of facilities at all points, priority to be given to the points of activity and exit area.

Not Practicing Physical Distancing: 8.62% (Chart A) of the people observed were not practicing physical distancing. Either they were standing too close (8%), or a crowd of 2 or 3 standing together (7.7%) or not standing or sitting in designated places (6%). Women (48%) are less non-compliant than men (52%). Youth are slightly more non-compliant (35%) than adults (32%) and children (33%) on maintaining physical distancing.

- Highest non-compliance (9.5%) is observed at the public transport locations, and the

- Lowest (6.5%) at the malls.

Most common reason cited for non-compliance on this CAB is, ***"We were too busy talking to each other. Did not realize."***

Nearly six months after the first unlock guidelines, the SOP compliance levels appear to have been relaxed. For example, physical distancing signage were not found at nearly 16-19% of entrance points across locations. Even where signs like circles on the floor were available there was no enforcement thereof.

Touching of frequently touched surfaces and hand hygiene: About 934 subjects (7.54%) were found to be touching various frequently touched surfaces. While this was the lowest non-compliant CAB, 78.4% of non-compliant people were observed not using sanitizer (Chart A). For this CAB too, women (52%) were more compliant than men (48%). Youth at 34% are marginally more on-compliant than adults and children – both at 33%.

- In public transport, highest percentage of people (90.7%) were observed to touch frequently touched surfaces compared to other places.
- Lowest non-compliance 4.3% was in open / organized markets. In religious places, only 6.81% people were observed to touch the frequently touched surfaces.

While overall use of sanitizer after touching a surface was 22% (78% non-compliance), the non-compliance was:

- Highest 92% at the public transport;
- Least 30% at the religious places.

Most common reason cited for non-compliance was, ***"I wash my hands with soap on reaching home / office."***

Low compliance to SoPs as per the unlocking guidelines is visible across all key locations and points. The availability of hand sanitization facility at the Entry point is only 22% in organized and open markets, 16% in Gyms etc., and 19% at the religious places.

Impelling CABs

CAB such as respiratory etiquettes, provision of services including availability of IEC materials and screening facilities that are contributing in limiting and controlling of the COVID-19 transmission further.

- ***Maintaining respiratory etiquettes while sneezing and coughing:*** Over all, 20% of the total respondents (12,400) were observed for this behaviour and witnessed low compliance across key parameters such as coughing in fold arm (22%), using of tissue (22%), disposing of used tissue in dustbin (20%), spiting in open (18%) and touching of t-zone (4.6%).
- ***Availability of IEC materials and screening facilities:***
    - Thermal screening and checking the status of Arogaya Setu: Under the Compliance of SoPs for unlocking guidance both these important services were observed across the organized and open markets, gyms/saloons/yoga centers, food outlets, places of the worship and metros, bus and railway station.

- Display of IEC materials at public transport is: exit (7%), escalator (8%) and at elevator (9%) and inside the coach / bus (10%). It needs to be improved.

'Not wearing of mask' has emerged more of a structural and communication issue, bringing out challenges populations are facing in wearing them regularly or for a longer period of time. The first barrier identified was 'My ears starts paining due to elastic band', and it was followed by people feeling difficulty in breathing/suffocated and itching/irritation on their nose. Masks with flexible strings are available but people are not aware of it. Masks with skin friendly and non-irritating materials are also available but awareness is low. A combined approach of appropriate communication and solving structural issues of production and distribution of masks for longer wearing time will help in overcoming this barrier.

Low adherence to maintaining of physical distancing could also be due to low compliance on MoHFW guidelines. SoPs for unlock guidelines were issued in May 2020. Data collected in the last week of November – after about 6 months of unlock guidelines show that signage for physical distancing are inadequate. More signage at vantage points will provide a nudge to act.

Hand hygiene can be improved by (1) enhancing threat perception vis-à-vis COVID-19 especially 'COVID-19 could be transferred from 'high contact places' and transmission could be prevented through hand washing with soap/sanitizing, (2) expanding the availability of economical and easy to carry liquid soap/sanitizers.

Chapter 1

Background, methodology and respondent profile

This chapter provides background and rationale for COVID-19 Appropriate Behavioral Surveillance Survey facilitated by National Center for Disease Control, its methodology and participant profile.

Chapter 1 – Background and Methodology

The ongoing COVID-19 pandemic is recognised as a large-scale outbreak with a high burden of morbidity and mortality, worldwide. Although it has led to dramatic loss of human life globally, the impact of COVID-19 has been broad, affecting general society, economy, ecology, politics and other areas. India too continues to be one of worst-hit countries in the world with more that 97,00,000 COVID-19 confirmed cumulative cases and 141,000 deaths so far. India has left no stone unturned to implement strategies to combat threat to life and livelihood.

The Ministry of Health and Family Welfare (MOHFW) in close collaboration with National Centre for Disease Control (NCDC), Government of Delhi and other departments, key line Ministries, Public Institutions, UN agencies, Donors and Civil Society have implemented many visionary measures to mitigate disease at the initial stage itself. These measures covered lock down of the country, risk communication and community engagement (RCCE) interventions and campaigns, improving testing and healthcare capacities, reaching to the most affected populations (migrants and people living below the poverty line) and introducing economic and safety net measures for their revival. Several ministries and their national programmes have joined hands to support this critical endeavour of the nation.

Noteworthy efforts have been also made to advance availability of the vaccine to the priority target groups in the country, yet a sizeable section of the population will not be vaccinated and hence remains vulnerable to the threat of the COVID-19. Battling the current pandemic strongly relies on how well the population at large follow COVID-19 appropriate behaviours (CAB) including wearing of mask and respiratory hygiene in public places; physical distancing rules; adhering local restrictions and engaging in effective personal hygiene. Evidence generated worldwide corroborate with the broad adoption of even relatively ineffective face masks and its use may meaningfully reduce community transmission of COVID-19 as well as decrease peak hospitalizations and deaths[i]. Similarly, another study in USA observed that the higher physical distancing was associated with a 29% reduction in COVID-19 incidence and a 35% reduction in COVID-19 mortality.

Yet, India has become the major epicentre of COVID-19 and continues to report ample number of infections and deaths; with 60% of cases accounted from six states- *Maharashtra, Andhra Pradesh, Tamil Nadu, Karnataka, Uttar Pradesh and Delhi.* Ten months into the pandemic, lack of compliance to the CAB is being witnessed across the country. Recent studies[ii] have also shown that low risk perception and a high degree of prevalence of comparative optimism-where people believe COIVD-19 (negative events) is more likely to happen to others than themselves.

There is a need to understand better prevailing risk perceptions; take deep-dive on the complex interplay of changing epidemiology, media attention and pandemic control measures; and assess factors that influence individual protective behaviors as paradoxically, how people perceive risk is not necessarily correlated with the actual risk.

NCDC has been working closely with MOHFW and other key line ministries and departments, UN partners in envisaging the risk communication programs, developing appropriate messages and content for various stakeholders for the rapid and widespread behavior change needed for COVID-19 appropriate behaviors in the community. They are also extending support to high impacted states included Delhi through assessment

of behaviors among sub-populations who are at high risk for contracting the COVID-19 or other infectious diseases using the behavioral surveillance surveys (BSS). The findings from BSS will help provide timely information to the decision makers for re-strategizing the policies involving the core variables of risk communication and community engagement.

A study on COVID-19 appropriate behavioral surveillance (BSS-CAB) has been facilitated with the support of UNICEF and its implementing partners Doctors For You and Envisions Institute of Development. The study is conducted in Delhi and the findings from it will be used to inform similar studies to be conducted at various other sites of Delhi, across the country and guide the planning, programming and implementation of forthcoming policies intended to curtail the COVID-19 transmission.

Methodology**:** For the survey, Delhi metro and areas around it were selected. Locations were identified across all districts of Delhi state to ensure a fair representation of the population and to cover the socio-economic status as well as the points of commercial activity.

Seven categories of public sites were identified and included such as *Transport* (Metro stations, local bus stands, railway stations); *Markets* (Organized, Open, Malls/Supermarkets); *Cinema Halls* (Single screen & Multiplex); *Religious places* (Temple, Mosque, Gurudwara & Church), *Food Outlets* (Restaurants/pubs, Street-side outlets & outlets in places of public transport); *Gyms and Saloons*.

Study Design: BSS-CABs are intended as an observational cross-sectional survey. This survey was used for the purposive sampling technique for the selection of metro stations and other public places. Efforts are taken to ensure representation.

The survey used a mixed method approach, which included Observation checklists, Verification of SOPs and Social Experiments. The Social experiments have been carried out to understand the reaction of the communities on CAB and the barriers that they face in adopting or adhering to the behaviours. Observation checklists and verification of the SOPs are conducted to gaze at the availability of the COVID-19 prevention services at public places and understand implementation/ adherence to the unlocking policies and guidelines issued by Government of India.

Sampling Strategy: Purposive sampling technique was utilized for the selection of metro stations and other public places. Efforts were taken to ensure wider representation of population groups and demographic profiles. Average daily footfall of Delhi Metro after re opening during post – COVID-19 unlock was considered and the minimum sample size for fair representation of the commuting population was calculated as 6000.

As more number of commuters were stepping out on weekends compared to the weekdays, the sample size was equally distributed between weekdays and weekends. Additionally, a combined sample of 400 was observed at seven categories of public sites - Local Bus stands, Railway stations, Organized markets, Open markets, Malls/Supermarkets, Single screen theatres, Multiplexes, Temples, Mosques, Gurudwaras and Churches. A further distilled sample size of 400 from various locations was used to conduct social experiments.

Data collection approach at the metros stations and other locations: Table 1A gives the break-up of locations, sites and the target population for conducting CAB surveillance survey in Delhi.

For metro stations, a sample of 600 from each metro station (including coaches) (300 during weekdays and 300 during weekends) was taken. People at various observing points were observed for "not wearing masks properly (covering both - nose and the mouth), not maintaining physical distancing (2-meter distance/ as per the physical distancing markings, if present), touching frequently touched surfaces with bare hands, sanitizing their hands using own hand sanitizers after touching frequently touched surfaces, maintaining respiratory etiquettes and touching facial T zone. Two key Observing Points were identified and (1) boarding - covering Entry, Ticket counter, Elevator/escalator and Platform and (2) travel - Inside the coaches, and Exit.

Inside the coach, all commuters at a given point were observed (considering the physical distancing markings inside a coach) and all of them from each commute were included in the survey. At the boarding platform of each metro station; 10 subjects each from the observing points (i) Entry, (ii) Ticket counter, (iii) Elevator/escalator (iv) Exit were observed from each station for 4-5 minutes at each point.

Table 1A: Locations, sites and the target population for conducting CAB surveillance survey

Location		Number/ Name of sites	Target population
Public Transport	Metro stations	10	General public - *Observation, social experiments, perception survey* Administrative staff/vendors/service providers - *Observation, verification of SOPs*
	Local Bus stands	3	
	Railway stations	3	
Markets	Organized	3	
	Open	3	
	Malls/Supermarkets	3	
Cinema Halls	Single screen	3	
	Multiplex	3	
Religious places	Temple	6	
	Mosque	3	
	Gurudwara	3	
	Church	3	
Food outlets	Restaurants / pubs	1 in each MCD	Administrative staff/vendors/service providers - *Observation, verification of SOPs*
	Street-side outlets	2 in each MCD	
	Outlets in places of public transport	Metro stations, Local bus stands, Railway stations - 3 each	
Others	Gyms	2 in each MCD	
	Salons	2 in each MCD	
Target Population	6000 from metros and 400 from each of the other 16 mentioned sites		

For other locations-all seven categories of the public sites (Local Bus stands, Railway stations, Organized markets, Open markets, Malls/Supermarkets, Single screen theatres, Multiplexes, Temples, Mosques, Gurudwaras and Churches), samples for observations were distributed equally between rush hours vs non-peak hours, and between weekends vs weekdays.

Availability and display of communication (Information Education and Communication-IEC) materials were also observed across these locations. Social experiments were conducted at various sites to assess communities existing practices related to CAB- (1) wearing of masks; (2) practicing Physical Distancing; (3) carrying out frequent hand sanitization; and (4) reaction towards spreading of awareness

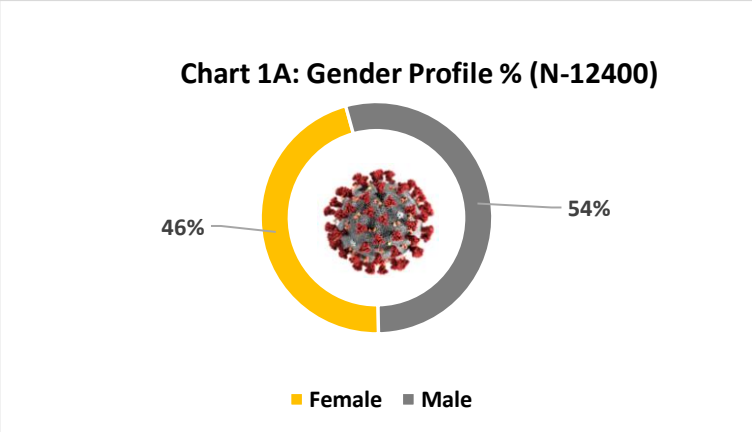
Study Duration, Analysis and reporting: The BSS-CAB has been conducted over two weeks and included data collection for 5-6 days (covering weekdays and weekends) in the month of November 2020 followed by data analysis, inferencing and reporting.

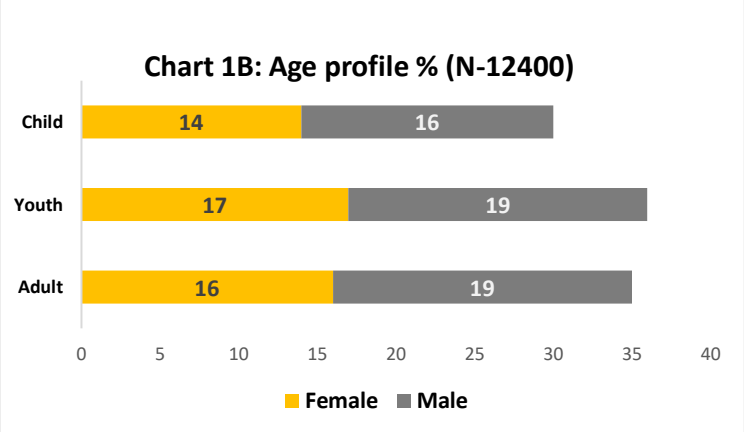
- Chapter 1 of the report presents the background and methodology of the survey.
- Chapter 2 of the report includes key findings covering comparative analysis of all districts of Delhi, gender profiles and risk indexing based on barriers identified for localization of strategies.
- Chapter 3 provides detailed recommendations needed for making strategic shifts for behavioural compliance and reducing COVID-19 transmission.

Participant Profile

Total Participants* Observed: 12,400 + Interviewed: 608

Table 1B: Participants' Breakup						
Participants	13008	Public Transport	Malls	Religious Places	Open Markets	Total
Observed at location		6800	2400	1600	1600	12400
Interviewed	Public	People interviewed at public places				297
	Admin.	Administrators interviewed at public places				311





*By the virtue of the sites selected, more males (**Chart 1A** – Males 54%) were observed compared to females during the course of the assessment. Youth (Young people) comprised the maximum number of observed respondents at 36%, marginally higher than adults (35%), while the children were the lowest part of the group at 30% **(Chart 1B)***

**Reference Table 1B: There are two types of participants in this study: those who were observed from a distance (12400) and those who were interviewed (297 from the public and 311 from administrators)*

Chapter 2

Complacent attitudes and behaviours: Key findings

This chapter brings together findings CAB wise from Observation Checklists, Verification of the SOPs and Social Experiments. Behavioural Insights profiles are developed to highlight where is the risk (deep-diving geographically for CAB), who is more non-compliant (gender and age profiles) and what are the barriers to the compliance of CAB

Chapter 2 – Key Findings

Because of the COVID-2019's unique disease aetiology (asymptomatic and super spreading events), lack of definitive treatment and availability of vaccine to general population, preventive behaviours have become increasingly important for individuals, especially those who are vulnerable and find the only way to overcome the disease. The behavioural surveillance survey, as a cross-sectional study brought out perspectives on the prevalence of the behaviours with a rigour as well as attention on the multi-dimensional barriers that are influencing uptake of the CAB.

For decision-makers and effective internalization of new perspectives and emerging trends, the findings are presented below holistically behaviour wise. This section is divided into

(I) Impacting CAB – those behaviours which are 'all time crucial' and have a direct impact on transmission and

(II) Impelling CAB – those behaviours which could be 'situational' but they drive the practice of impacting behaviours.

For each COVID-19 appropriate behavioural component under Impacting CAB section is further divided into an over-all gender and age wise perspective, deeper-dive on geographic locations (at the public transport, malls/gyms/saloons, religious places and markets), compliance on SOPs and guidelines issued by MOHFW and barriers to respective CAB.

Note

In a large city like Delhi with fluid and dynamic population, residents travel across the city on a daily basis to meet their work, business, education, medical, and even social needs. Therefore, at any given point of time the population being observed may not belong to the district where it is being observed. For example, Kashmere Gate Metro Station in Central Delhi caters to three different metro lines: Yellow, Red and Violet. A person observed at this metro station as a part of this study is counted in Central Delhi but the person could be a resident of any other district. Therefore, district wise conclusions are not drawn from the data.

Section I: Impacting CABs

Wearing of masks

Wearing of mask is a critical behaviour not only to protect oneself from the COVID-19 infection but also to protect others. Out of 12, 400 respondents observed in the survey, 1,121 (9.04%) are found not wearing masks (Table 2). Incorrect practices of wearing a mask included: *mask under the nose, mask under the chin, mask hanging from one ear, not covering entire nose and chin, mask loose from nose with gaps or improper mask reflecting dirt and shred*.

Non-compliance is highest in public transport – 10.8% and lowest in Malls – 6.3%.

Entrance to public transport areas at 15.9% shows highest non-compliance level. Within the coach / bus 11.4% people were observed not wearing masks. Ticket counters also show a non-compliance percentage (10.9%) which is higher than the overall average for the public transport.

Inside Malls / Gyms higher than average non-compliance is inside the shop areas and at the entrance.

Table 2 : Not Wearing Masks

Public Transport							
	Entry	Ticket Counter	Elevators/ Stairs	Platform	Coach/ Bus	Exit	Sum
Total	680	680	680	1360	2720	680	6800
Not Wearing Mask	108	74	60	126	311	57	736
Percentage	15.9%	10.9%	8.9%	9.3%	11.4%	8.3%	10.8%

Malls / Gyms / Saloons / Cinemas / Restaurants							
	Entry	Shop / inside	Elevators/ Stairs	Food Court	Parking	Exit	Sum
Total	240	780	240	660	240	240	2400
Not Wearing Mask	16	58	14	36	14	12	150
Percentage	6.6%	7.5%	5.8%	5.5%	5.9%	5.1%	6.3%

Religious Places					
	Entry	Worship	Langar	Exit/ Parking	Sum
Total	160	640	640	160	1600
Not Wearing Mask	11	52	46	0	109
Percentage	6.6%	8.2%	7.2%	0.0%	6.8%

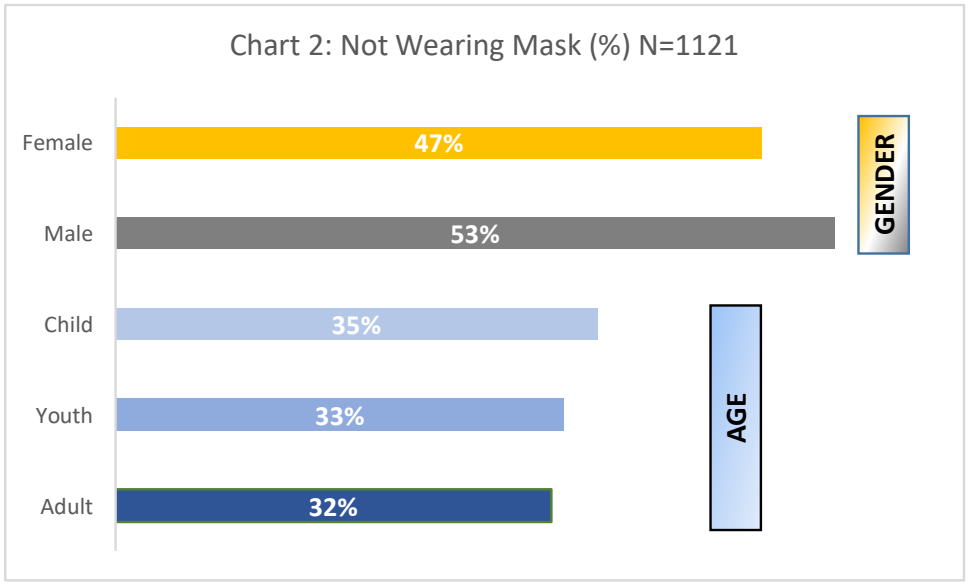
Open / Organized Markets / Street Food Outlets / Food Counters in Public Transport					
	Entry	Purchase	In Street	Exit/ Parking	Sum
Total	160	480	800	160	1600
Not Wearing Mask	17	39	59	11	126
Percentage	10.6%	8.2%	7.4%	6.7%	7.9%

Total All Places	
Sample Size	12400
Not Wearing Mask	1121
	9.04%

Non-compliance at the worship area (8.2%) and langar / wasing area / assembly (7.2%) is contributing more to the overall non-compliance level (6.8%) at religious places.

Entrance (10.6%) and purchase areas (8.2%) in open / organized markets have higher non-compliance. Overall 7.9% people are not wearing masks in the open / organized markets.

Chart 2 gives gender and age-wise break up of non-complaint persons.



Less women (Chart 2) (47%) are wearing masks incorrectly than their male counterparts (53%). So, men are more non-compliant than women. Wearing of masks is higher (53%) among women – which is 6 percentage points higher than men.

Adults (32%) (Chart 2) are found to be marginally better than Youth (33%). Children are most non-compliant at 35%.

Compliance to SOPs for Unlocking Guidance:

In case of mask, this section focused on the proper facility to dispose masks and face-covers. Public places (311) including public transport, places of worship, malls, and organized markets were studied for compliance of SOPs. It may be worthwhile to mention that the administrators at these places were interviewed in the last week of November 2020 – **nearly six months after the release of unlock 1 guideline in May 2020**.

Table 2A: SOP Compliance – Masks (N=311)												
Parameter	Organized & Open Markets			Gyms/Saloons/Yoga Cents			Food Outlets			Place of Worship		
Inadequate facility to dispose masks and face-covers	Entry	While Purchasing	While Collecting Money/Exit	Entry	Exercising	Exit	Entry	While Ordering	While Collecting Money/Exit	Entry	During Worship	Exit
	19%	NA	7%	16%	NA	5%	18%	NA	5%	18%	NA	8%

Low compliance to SoPs as per the unlocking guidelines was visible across all key locations and points **(Table 2A).** Facilities to dispose masks and face covers were more provided at the entry and less at while collecting money or at the exit of markets in the organized and open markets. Compliance at entry points in gyms/saloons/yoga centres, food outlets and places worships is better at the entrance in comparison to spots which are the main point of action (i.e. where individuals are expected to spend time such as in exercising, purchasing, or ordering food or worshiping. Less services were observed at the entry points. While there is a need to over-all scale-up provision of facilities at all points, priority to be given to the points of activity and exit area.

Display of adequate IEC material to facilitate proper disposal of used masks is important across the transport sequence. **Table 2B** presents the data on display of IEC materials. It is on a lower side at the exit points (7%), escalators (8%), elevators (9%) and inside the coach / bus (10%).

Table 2B : SoP Compliance - Masks (N=311)	Transport	Entry	Ticket Counter	Elevator	Escalator	Platform	Coach	Exit
Display of IEC material and posters at strategic locations		23%	14%	9%	8%	13%	10%	7%

Barriers for not using masks

Not wearing mask was the most observed behaviour among CAB (9.04%) - masks were not worn properly or not worn at all. Table 2C presents data on reasons given by a sample from the non-compliant population. As mentioned earlier this data was collected through face-to-face interviews. The four top most reasons for not using masks are related to physical discomfort related to masks as a product-(1) My ears start paining due to elastic band-38%; (2) I face difficulty in breathing/feel suffocated-28%; (3) I feel itching/irritation on my nose-25%; and (4) I remove it while talking-19%.

Table 2C: Barriers Reported by Respondents (N= 297) figs in %								
Not wearing masks properly **(Top 3 barriers marked in RED)**	Child M	Child F	Youth M	Youth F	Adult M	Adult F	Total No.	Total %
My ears start paining due to elastic band Highest 1	46.7	54.5	33.7	33.3	37.5	55.9	114	38%
I face difficulty in breathing /feel suffocated Second Highest 2	13.3	9.1	29.3	27.2	28.1	38.2	83	28%
I feel itching / irritation on my nose Third Highest 3	13.3	9.1	21.7	24.7	29.7	35.3	74	25%
I remove it when talking	20.0	9.1	17.4	18.5	20.3	20.6	55	19%
When I speak with face cover, my voice sounds strange to me	-	-	10.9	12.3	17.2	14.7	36	12%
I get tired of wearing it	13.3	9.1	6.5	7.4	6.3	5.9	21	7%
I forgot to pull it back	13.3	-	5.4	6.2	6.3	5.9	18	6%
I have heard that it can cause carbon di oxide poisoning	13.3	9.1	3.3	3.7	3.1	5.9	13	4.4%
I have very strong immunity	6.7	-	4.3	3.7	3.1	5.9	12	4.0%
I have read that it cannot really protect you	6.7	-	4.3	3.7	1.6	2.9	10	3.4%
I do not think there is anything like COVID	6.7	-	2.2	2.5	3.1	2.9	8	2.7%

Across gender and the age groups, the order of top three barriers remained the same (1) My ears start paining due to elastic band; (2) I face difficulty in breathing/feel suffocated; (3) I feel itching/irritation on my nose; except in children for whom difficulty in breathing and feeling itchy/irritation on the nose were the second priority.

Maintaining physical distance of 2 meters or following the distancing markings[1]

Table 3 : Not Maintaining Physical Distancing (NMPD)

Public Transport							
	Entry	Ticket Counter	Elevators/ Stairs	Platform	Coach/ Bus	Exit	Sum
Total	680	680	680	1360	2720	680	6800
NMPD	95	76	59	110	243	64	648
Percentage	13.9%	11.2%	8.7%	8.1%	9.0%	9.5%	9.5%

Malls / Gyms / Saloons / Cinemas / Restaurants							
	Entry	Shop / inside	Elevators/ Stairs	Food Court	Parking	Exit	Sum
Total	240	780	240	660	240	240	2400
NMPD	14	44	16	54	15	14	157
Percentage	5.8%	5.7%	6.5%	8.2%	6.4%	5.7%	6.5%

Religious Places					
	Entry	Worship	Langar	Exit/ Parking	Sum
Total	160	640	640	160	1600
NMPD	12	58	61	0	131
Percentage	7.3%	9.1%	9.5%	0.0%	8.2%

Open / Organized Markets / Street Food Outlets / Food Counters in Public Transport					
	Entry	Purchase	In Street	Exit/ Parking	Sum
Total	160	480	800	160	1600
NMPD	14	47	59	13	133
Percentage	8.6%	9.9%	7.4%	8.0%	8.3%

Total All Places	
Sample Size	12400
Not maintaining physical distance	1068
	8.62%

The absolute importance of maintaining a distance of approximately 2 metres from another individual cannot be denied in COVID-19 times particularly when there is demonstrative evidence available from past experiences that it results in a marked reduction in transmission of most (flu) virus strains.

Data collected from Delhi (Table 3) shows that about 8.62% of the people observed in public places are not maintaining the required physical distance. Highest non-compliance (9.5%) is observed at the public transport locations and the lowest (6.5%) at the Malls.

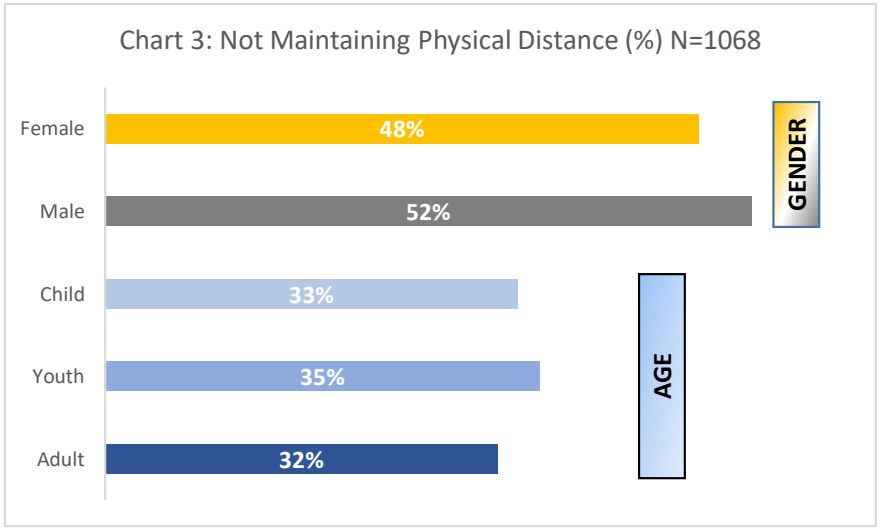
Higher than average non-compliance has been observed at the entrance (13.9%) and ticket counter (11.2%) at the public transport.

8.2% of the people observed at the food courts inside malls were observed to be non-compliant on practice of physical distancing.

At the religious places, practice of physical distancing is low (about 90% - 91%) at worship and langar / assembly / washing areas. In open markets, entrances (8.6%) and purchase areas (9.9%) show higher than average (8.3%) non-compliance.

[1] The terminology Social Distancing is not being used in this document as it has additional social, cultural and economic ramifications on the already marginalized and vulnerable communities. Physical distancing has been chosen and used to describe the 'physical space needed between the individuals'

More males (52%) are not practicing physical distancing measures than their female counter-parts (48%) **(Chart 3).** In the age group category as seen in **Chart 3**, the behaviours related to physical distancing showed that adults were better (32%) than youth (35%) - who were most non-compliant.



Women (52%) are more compliant in maintaining physical distance than men than men (48%).

Youth are most non-compliant (35%). Physical distance is maintained best by adults as 68% of the adults were seen to be practicing physical distancing.

<u>Compliance to SOPs for Unlocking Guidance:</u>

This section provides insights on the implementation of SOPS after lockdowns were lifted and services are provided in the public domain to limit the COVID-19 transmission. Nearly six months after the first unlock guidelines, the SOP compliance levels appear to have been relaxed. For example, physical distancing symbols were not found at nearly 16-19% of entrance points across locations. **Table 3A** presents the findings.

Table 3A: SOP Compliance – Physical Distancing (N=311)												
Parameters	Organized & Open Markets			Gyms/Saloons/Yoga Cents			Food Outlets			Place of Worship		
	Entry	While Purchasing	While Collecting Money/Exit	Entry	Exercising	Exit	Entry	While Ordering	While Collecting Money/Exit	Entry	During Worship	Exit
Directly related to physical distancing												
Physical Distancing symbols or signals	18%	16%	7%	16%	NA	5%	17%	16%	7%	19%	16%	6%
Maximum number of people restricted	14%	13%	4%	11%	11%	2%	12%	15%	3%	15%	12%	5%
Indirectly influencing physical distancing												
Ventilation (in the area of purchasing material/ premises/worship)	17%	11%	NA	NA	16%	NA	NA	19%	NA	NA	21%	NA

Factors directly related to physical distancing: Low compliance to SoPs as per the unlocking guidelines is visible across all key locations and points. Symbols and signs are less available at the entrances, points of purchase, exercise, ordering and during the process of worshiping. Even the maximum number of people that can enter the organized & open markets, gyms/saloons/yoga centres, food outlets and places worships were not capped or monitored properly.

Even when symbols and signs are available, absence of an enforcing person (guard, supervisor, etc.) results in non-compliance. Pictures taken at a historical monument (Picture 1) in Delhi during the survey tell the story: markings for physical distancing can be seen on the ground yet people have formed queues on both sides of the markings and are standing without maintaining the distance.

Picture 1

For factors indirectly influencing physical distance measures also included ventilation and it was not observed at the entrance of gyms/saloons/yoga centres, food outlets and places worships or had low compliance as in the case of organized & open markets. Ventilation was also less observed at the points of purchase, exercise, ordering and during the process of worshiping. (Table 3A)

Physical Distance at Gyms, Saloons and Yoga Centers: Two additional indicators were included to observe physical distance:

- Are all equipment arranged to ensure physical distancing? and
- Is physical distancing encouraged in the locker room areas.

Nothing was observed at entrance and exit points and relatively close to 15% and 16% were not displaying physical distance of the equipment or of the people at the locker rooms.

Food outlets, Restaurants and Street foods: 'Ensure physical distancing during buffet' was observed for food outlets, restaurants and street foods as an additional indicator. Nothing was observed at entrance and exit point and relatively close to 17% were not displaying physical distance at the buffet time.

Place of Worship: 'Availability of choir/signing groups for devotional songs' was observed for the place of worship as an additional indicator. Nothing was observed at entrance and exit point and relatively close to 19% were not displaying physical distance at the while participating in prayers related activities.

On the public transport points, physical distancing measures were poorly supported at the exit points (Ref **Table 3B**). Ventilation was poor at the ticket counters at metro, bus and railway stations. On the other hand, signs and symbols were placed across all points at the stations – there were fewer signages (6%) at the exit point.

Table 3B : SOPs Compliance - Physical Distancing (N=311) Metros, Bus and Railway Stations							
PARAMETERS OBSERVED	ENTRY	TICKET COUNTER	ELEVATOR	ESCALATOR	PLATFORM	COACH	EXIT
Physical distancing symbols or signals	24%	15%	13%	11%	15%	15%	6%
Ventilation at area near ticket counter	NA	25%	NA	NA	NA	NA	NA

Barriers to not practicing Physical Distancing

The top four reasons for not practicing physical distancing **(Table 3C)** are related to low (COVID-19) threat perception and challenge of the space itself: (1) we were too busy talking to each other. Did not realise- 26%; (2) when in hurry, you can't see who is close to you - 24.9%; and (3) I maintained distance-but it is difficult to do so in lifts/escalators/ exits- 24.6%; and (4) I will not transmit to others-9%. Given the issue of threat perception and as it is something that could be addressed through community engagement interventions well, barriers to physical distancing were also deeply analysed against age and gender groups. While the barriers listed above largely resonated across age groups, the prioritization changed. *In case of children,* the order of barriers are - (1) we were too busy talking to each other. Did not realise; (2) I maintained distance-but it is difficult to do so in lifts/escalators/ exits; and I will not get transmission from others; and (3) There is no space around in this market. *Incase of youth*, the barriers are (1) When in hurry, you can't see who is close to you; (2) we were too busy talking to each other. Did not realise and (3) I maintained distance-but it is difficult to do so in lifts/escalators/ exits. *For adults*, the important sited barriers are - (1) we were too busy talking to each other. Did not realise (2) When in hurry, you can't see who is close to you; and (3) I maintained distance-but it is difficult to do so in lifts/escalators/ exits. Among males, the priority barriers are (1) We were too busy talking to each other. Did not realise; (2) I maintained distance-but it is difficult to do so in lifts/ escalators/ exits; (3) When in hurry, you cannot see who is close to you; while among females, (1) we were too busy talking to each other. Did not realise; (2) I maintained distance-but it is difficult to do so in lifts/escalators/ exits; and (3) I will not get transmission from others are the most commonly cited barriers.

Table 3C: Barriers Reported by Respondents (N= 297) figs in %

Not mainatining physical distancing **(Top 3 barriers marked in RED)**	Child M	Child F	Youth M	Youth F	Adult M	Adult F	Total No.	Total %
We were too busy talking to each other. Did not realize. Highest 1	26.7	18.2	20.7	23.5	29.7	41.2	77	26%
When in hurry, you can't see who is close to you Second Highest 2	13.3	9.1	22.8	25.9	26.6	35.3	74	24.9%
I maintained distance, but it is difficult to do so in lifts / escalators / exits Third Highest 3	13.3	18.2	22.8	24.7	25.0	35.3	73	24.6%
1 will not transmit to others	13.3	18.2	7.6	8.6	7.8	8.8	26	9%
There is no space around in this market.	20.0	9.1	6.5	7.4	7.8	8.8	24	8%
We are friends and none of us a COVID positive	6.7	-	7.6	7.4	4.7	2.9	18	6%
The time of contact is too less for the other person to transmit	13.3	-	3.3	3.7	4.7	5.9	13	4%
I will not get transmission from others	-	-	3.3	3.7	1.6	2.9	8	3%
I have very good immunity	-	-	2.2	2.5	1.6	-	5	2%
Is the coronavirus hanging in the air?	-	-	-	-	-	-	0	0%
The whole COVID thing is a conspiracy	-	-	-	-	-	-	0	0%

Touching of Frequently touched surfaces and hand-hygiene

Touching of frequently touched surfaces is a potential source of transmission for SARS Cov2. Handwashing is important as it prevents not only the fomite transmission, but also person-to person transmission. Therefore, washing of hands or sanitizing of hands often is the best way to break the causal chain of infection and protect oneself and others from COVID-19.

Under BSS-CAB, the 'touching of surfaces with bare hands frequently' is covered and includes handrail/escalator/staircase, handles, counter top, vending machine, goods, seats, materials/idols are covered. Additionally, this section further covers both negative and positives responses to sanitization of hands after touching unclean surfaces. Moreover, few more hand-hygiene public service related parameters were also added under the compliance of SOPs for unlocking guidance section.

Table 4 : Touching Frequently Touched Surfaces (TFTS)

Public Transport							
	Entry	Ticket Counter	Elevators/ Stairs	Platform	Coach/ Bus	Exit	Sum
Total	680	680	680	1360	2720	680	6800
TFTS	86	73	60	107	243	59	629
Percentage	12.6%	10.7%	8.9%	7.9%	9.0%	8.7%	9.3%

Malls / Gyms / Saloons / Cinemas / Restaurants							
	Entry	Shop / inside	Elevators/ Stairs	Food Court	Parking	Exit	Sum
Total	240	780	240	660	240	240	2400
TFTS	15	32	13	36	14	8	118
Percentage	6.2%	4.1%	5.2%	5.5%	5.9%	3.5%	4.9%

Religious Places					
	Entry	Worship	Langar	Exit/ Parking	Sum
Total	160	640	640	160	1600
TFTS	11	48	59		118
Percentage	6.6%	7.6%	9.3%	0.0%	7.4%

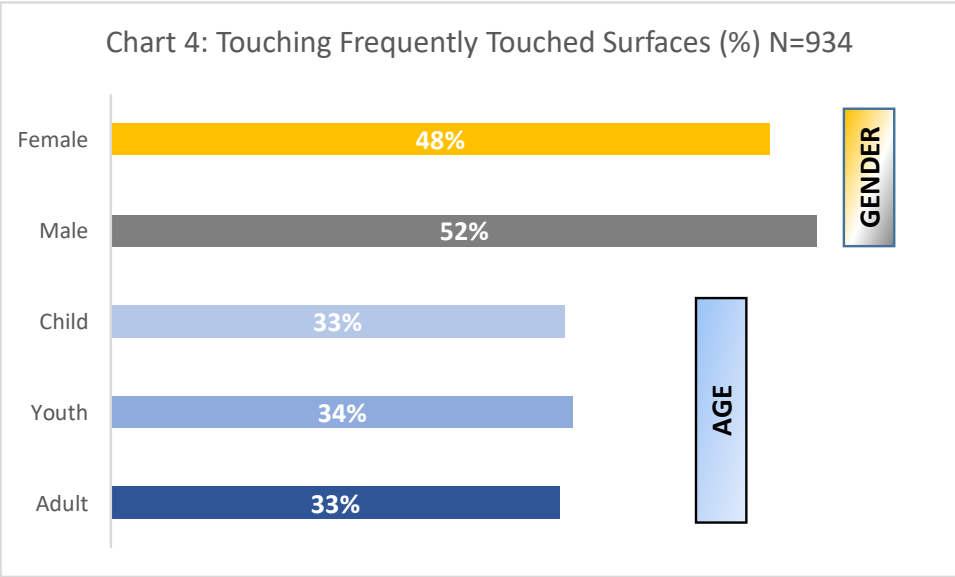
Open / Organized Markets / Street Food Outlets / Food Counters in Public Transport					
	Entry	Purchase	In Street	Exit/ Parking	Sum
Total	160	480	800	160	1600
TFTS	8	24	29	8	69
Percentage	4.8%	5.1%	3.6%	4.9%	4.3%

Total All Places	
Sample Size	12400
Touching Frequently Touched Surfaces	934
	7.54%

Out of 12,400, 934 (7.54%) respondents were observed touching frequently touched surfaces. Handles, Handrail/ Escalator/ Staircase/ Counter Top, vending machine and goods are found to be the five most common surfaces that are frequently touched with bare hands.

Chart 4 presents the gender and age wise break-up of non-compliant persons. Out of 934 persons who were found to be touching various frequently touched surfaces, 48% were women and 52% were men. So, non-compliance is more among men by about 4 percentage points.

Non-compliance levels among adults and children are the same at 33% which is marginally lower than the non-compliance level among youth (34%).



More women practice 'not touching frequently touched surfaces' than men – the difference being of 4 percentage points.

No significant difference was found between various age groups: non-compliance among youth was only marginally higher than children and adults by 1 percentage point.

It was found that more than three fourth (78%) out of 934 non-compliant persons did not use sanitizer after touching a surface. (Table 4A)

Highest non-compliance (92%) on 'not using sanitizer after touching' was observed at public transport locations.

Lowest percentage (30%) of people not using sanitizer was at the religious places. At religious places about 70% of the people who were seen touching a surface were also observed using a sanitizer.

Table 4 A:
People not using sanitizer after touching frequently touched surfaces

	Number of People Observed	Number of People not using sanitizer	% of People not using sanitizer after touching
Public Transport	629	581	92%
Malls / Gyms / Saloons / Cinemas / Restaurants	118	69	58%
Religious Places	118	36	30%
Open / Organized Markets / Street Food Outlets / Food Counters in Public Transport	69	47	68%
Total	934	733	78%

At malls and open / organised markets hand-hygiene practice of using sanitizer was less than 50% - 42% at the malls, and 32% in the open / organized markets.

Compliance to SOPs for Unlocking Guidance related to touching and cleaning of frequently touched surfaces, and hand-hygiene:

This section provides insights on the implementation of SoPs after lockdowns were lifted in May 2020. Infection prevention and control measures are taken in the public domain to limit the COVID-19 transmission.

To reflect on the touching and cleaning and sanitation measures holistically, the BSS tool covered factors that are directly providing insights on the levels of service provisioning across different categories of sites; and additional indicators that collected information on site specific issues and they have been provided separately.

A slide is observed (Table 4B). After six months since lifting of lockdown, the availability of hand sanitization facility at the Entry point is only 22% in organized and open markets, 16% in Gyms etc., and 19% at the religious places. Low compliance to SoPs as per the unlocking guidelines is visible across all key locations and points.

Table 4B : SoP Compliance – Hand Hygiene (N=311)

Parameters	Organized & Open Markets			Gyms/Saloons/Yoga Cents			Food Outlets			Place of Worship		
	Entry	While Purchasing	While Collecting Money/Exit	Entry	Exercising	Exit	Entry	While Ordering	While Collecting Money/Exit	Entry	During Worship	Exit
Directly related to Touching, cleaning and sanitization												
Hand sanitization facility at the shop	22%	NA	8%	16%	10%	2%	20%	NA	8%	19%	16%	6%
Emphasising digital mode of payment	18%	NA	12%	15%	NA	6%	18%	NA	11%	23%	NA	6%

Additional factors for sites on compliance of Touching and cleaning of surfaces and hand-hygiene SoPs

Place of Worship

Six additional indicators were added and they are (1) Allowing footwear in the premises. (2) If yes, separate slot for each individual/family to keep footwear in (3) Touching of statues/idols/holy books allowed; (4) Discouragement of common head cover/prayers mat in the premises, (5) Discouragement of physical offerings (prasad/ holy water, etc.) in the premises and (6) cleaning of the floors multiple times. Lesser compliance was for the services related to foot wear or common head-cover and mat at the entrance. Similarly, physical offerings were less discouraged at entrance or during the time of worshipping. Relatively more compliance was observed at the cleaning of the exit point compared to entrance or prayers premises.

Food outlets, Restaurants and Street foods

'Cleaning of the tables after delivery order' was observed for food outlets, restaurants and street foods as an additional indicator. Nothing was observed at entrance and exit point and relatively close to 17% were not displaying physical distance at the buffet time.

Physical Distance at Gyms, Saloons and Yoga Centers

Two additional indicators included were: (1) Disinfection of all the training equipment after each slot (2) Cleaning of all the training equipment after each slot. Low compliance was observed for both the indicators especially at the point of entrance and where the activity was performed. At the exit points, the services were found to be relatively better.

Metro, Bus and RAILWAY STATIONS

Six additional indicators were added to check the availability, functioning and accessibility of the hand sanitization services which included (1) Hand sanitization machines (2) Hand sanitization machine is working (3) Hand sanitization machine has sanitizer in it (4) all bags sanitized, (5) all surfaces of bags sanitized and (6) frequently touched surfaces regularly sanitized. Lesser compliance was observed at the entry point, escalator/staircase and ticket counter across all six indicators and relatively improved services were seen at platform and exit point. Services for Indicator six were not observed well across any of points at the stations.

Barriers to Hand Hygiene and touching and cleaning of frequently touched surfaces

According to Table 4C, the top four reasons for no hand-hygiene are related to threat perception of COVID-19 (1) I wash my hands with soap on reaching home/office-20%; (2) I get allergic reactions to soaps and sanitatisers-16%; (3) we must clean hands as we can get Coronavirus from surfaces like railings, handles etc-14% and (4) Surfaces which are touched by many people can transmit virus -13%. Interestingly, both (3) and (4) reflect awareness level which – at merely 13-14% reflect a scope for improvement.

Table 4C: Barriers Reported by Respondents (N= 297) figs in %

No hand hygiene **(Top 3 barriers marked in RED)**	Child M	Child F	Youth M	Youth F	Adult M	Adult F	Total No.	Total %
I wash my hands with soap on reaching home / office Highest 1	26.7	18.2	19.6	2.5	28.1	41.2	58	20%
I get allergic reactions to soaps / sanitisers Second Highest 2	6.7	-	19.6	-	26.6	32.4	47	16%
We must clean hands because we can get Coronavirus from surfaces like railings, handles, etc. Third Highest 3	20.0	18.2	18.5	2.5	15.6	20.6	41	14%
Surfaces which are touched by many people can transmit virus.	20.0	27.3	16.3	3.7	14.1	20.6	40	13%
It is impractical to stop and clean hands	13.3	9.1	14.1	1.2	12.5	8.8	28	9%
Soap or a bottle of sanitizer is expensive	6.7	9.1	8.7	1.2	9.4	8.8	20	7%
I purchased sanitizer but it got over	6.7	9.1	7.6	1.2	6.3	5.9	16	5%
I have very strong immunity	-	-	6.5	-	7.8	5.9	13	4.4%
I don't touch surfaces so my hands are clean.	13.3	-	3.3	-	4.7	8.8	11	3.7%
The whole COVID thing is a conspiracy of rich nations to earn money	-	-	3.3	-	3.1	5.9	7	2%
I am wearing gloves	-	-	3.3	-	1.6	-	4	1%

In case of children, the order of barriers are-(1) Surfaces which are touched by many people can transmit virus; (2) we must clean hands as we can get Coronavirus from surfaces like railings, handles etc. and (3) I wash my hands with soap on reaching home/office. ***In case of youth***, the barriers are (1) I wash my hands with soap on reaching home/office and I get allergic reactions to soaps and sanitisers; (2) we must clean hands as we can get Coronavirus from surfaces like railings, handles etc. and (3) Surfaces which are touched by many people can transmit virus. Less of youth female were observed to practice the hand hygiene. ***For adults,*** the important sited barriers are-(1) I wash my hands with soap on reaching home/office (2) I will get allergic reactions to soaps and sanitisers; and (3) we must clean hands as we can get Coronavirus from surfaces like railings, handles etc.

Two of the top three barriers among women and men are common. 'I wash my hands with soap on reaching home/office' is the most quoted reason by both men and women. Second most quoted reason by women is 'Surfaces which are touched by many people can transmit virus' and by men it is 'I get allergic reactions to soaps and sanitisers'. Third most quoted by both men and women is the same, 'we must clean hands as we can get Coronavirus from surfaces like railings, handles etc.'

Section II: Impelling CABs

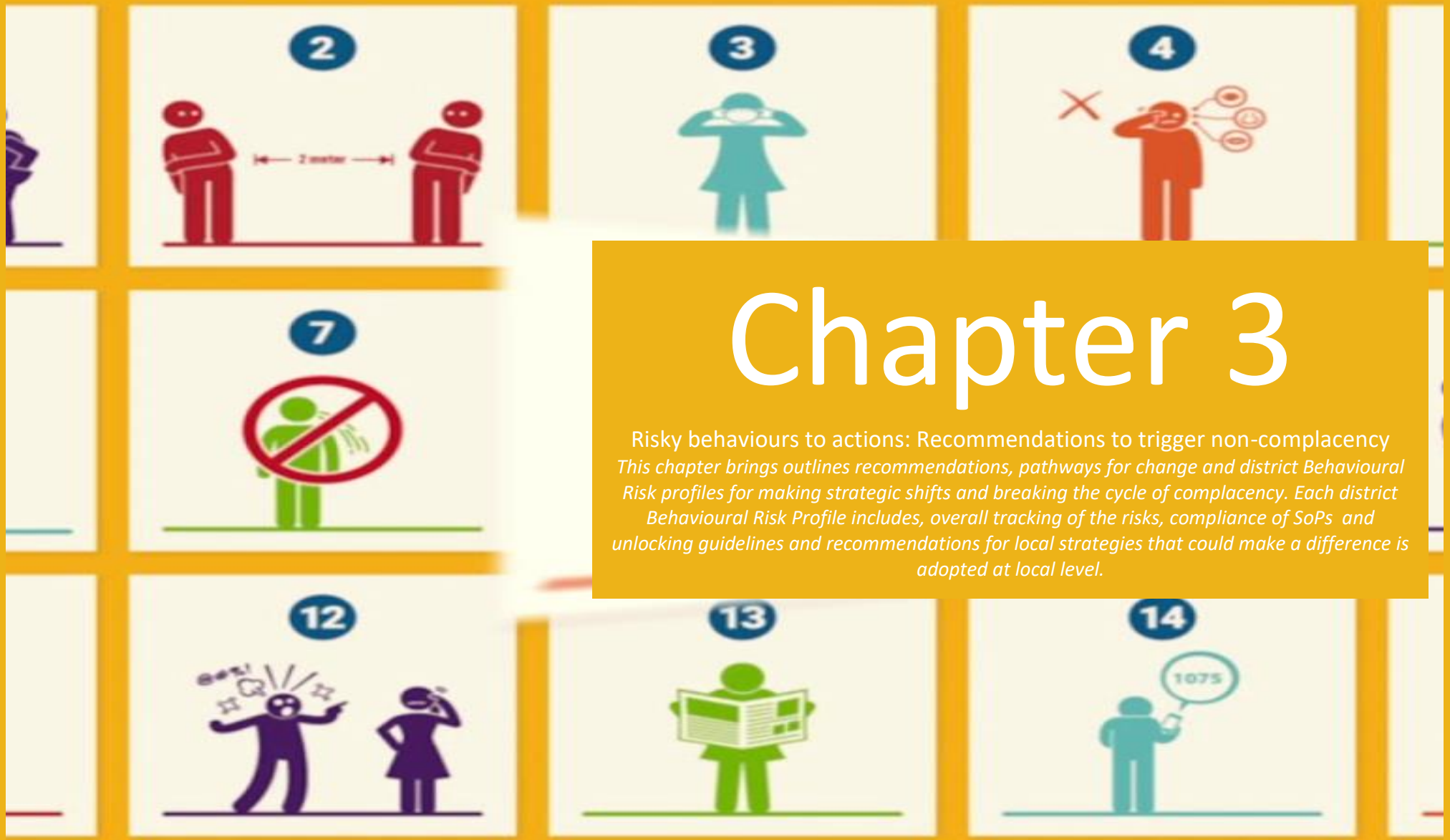
COVID-19 transmission is ongoing due to lack of compliance of 3 impacting behaviours-wearing of masks, maintaining of 2 meters of physical distance and avoiding touching of most contacted surfaces (on the presumption, that India in many parts still have droplet/formite transmission) and hand-hygiene. There are other CAB such as respiratory etiquettes, provision of services including availability of IEC materials and screening facilities that are contributing in limiting and controlling of the COVID-19 transmission further. The following section shares some valuable insights on these 'Impelling CABs':

- *Maintaining respiratory etiquettes while sneezing and coughing:* Over all, 20% of the total respondents (12,400) were observed for this behaviour and witnessed low compliance across key parameters such as coughing in fold arm (22%), using of tissue (22%), disposing of used tissue in dustbin (20%), spiting in open (18%) and touching of t-zone was (4.6%).
- *Availability of IEC materials and screening facilities* (Thermal screening and checking the status of Arogaya Setu): Under the Compliance of SoPs for unlocking guidance both these important services were observed across the organized and open markets, gyms/saloons/yoga centres, food outlets, places of the worship and metros, bus and railway station. Table 5 provides detail information on these three services across categories.

Table 5: SoP Compliance Impelling CABs (N=311)

Parameters	Organized & Open Markets			Gyms/Saloons/Yoga Cents			Food Outlets			Place of Worship		
	Entry	While Purchasing	While Collecting Money/Exit	Entry	Exercising	Exit	Entry	While Ordering	While Collecting Money/Exit	Entry	During Worship	Exit
Availability of posters and other IEC materials	18%	13%	5%	13%	11%	5%	17%	13%	5%	16%	14%	5%
Thermal screening at the shop, premises, religious place	21%	NA	NA	17%	NA	NA	21%	NA	NA	22%	NA	NA
Checking of Arogaya Setu status	14%	NA	NA	15%	NA	NA	16%	NA	NA	17%	NA	NA

Low availability of IEC materials across key points. However, it needs to be improved at the point of actions (exercise, shopping, ordering food and worshipping) and at exit. Thermal screening and checking of status was seen across all entry points. In case of metro, bus and railway stations (Refer Table 2B page 23) IEC materials display is: exit (7%), escalator (8%) and at elevator (9%) and inside the coach / bus (10%). It needs to be improved. Thermal screening was available only at the entry and ticket counter. It will be important to include its provision at the exit points, in line with the government guidelines.



Chapter 3

Risky behaviours to actions: Recommendations to trigger non-complacency

This chapter brings outlines recommendations, pathways for change and district Behavioural Risk profiles for making strategic shifts and breaking the cycle of complacency. Each district Behavioural Risk Profile includes, overall tracking of the risks, compliance of SoPs and unlocking guidelines and recommendations for local strategies that could make a difference is adopted at local level.

Chapter 3 - Recommendations

Risky Behaviours to Protective Actions: Recommendations

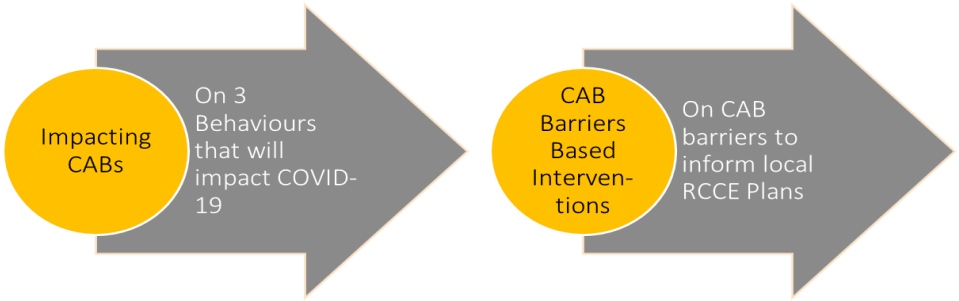
This section first acknowledges the effort of NCDC to support Government of Delhi in understanding COVID Appropriate Behaviour prevalence, identification of the gaps and behavioural informed action to be taken to address the alarming COVID-19 condition in the state. This effort will also help and inform other states that are equally or more impacted by impacted by COVID-19.

Recommendations under this section '*Risky Behaviours to Protective Actions*', is a step towards triggering the much needed social and behaviour change (SBC) that is required to navigate through the pandemic in 2021 especially when the COVID vaccine is being rolled out. Making people to be 'compliant to CAB' needs strategic thinking and thinking differently-especially the way behavioural barriers and enablers are understood and prioritized, prioritized barriers are used to inform the RCCE local plans and implementing partners have harmonized resources, tools and capacities to use the barriers and enablers to drive the change!

COVID-19 Behavioural Surveillance Survey (COVID-19-BSS), under the leadership of Government of Delhi is the first step in the direction to dig deeper in the behavioural complacency issues and take steps cohesively at local level for results that aspire long-term change, both in RCCE governance and sustainability of CABs.

The recommendations are divided into the two strategic components as shown in Picture 2

Picture 2: Risky Behaviors to Protective Action: Recommendations



Strategic Reccommedations-1 Impacting CABs	Covers three critical behaviours that will impact COVID-19 and include wearing of masks, physical distancing and touching of frequently touched spaces with linked to hand hygiene.

1 **Wearing of masks**

Not wearing masks was most non-complied CAB at 9.04%. *The most commonly observed top three incorrect ways of wearing masks, among the non-compliant people,* are -(*1) mask under the nose (21%) (2) mask under the chin/mask loose from nose with gaps (18%) and (3) not covering entire nose/chin and mask loose from chin/nose with gaps (17%)*; across gender, age-groups and districts. Additionally, 'not wearing of mask' has emerged more of a structural and communication issue, bringing out the challenges populations are facing in wearing them regularly or for a longer period of time. The first barrier identified was "My ears start paining due to elastic band', and it was followed by people feeling difficulty in breathing/suffocated and itching/irritation on their nose.

Recommendations:

(1) All these hindrances identified at the basic level could be seen as product related issues and would need to be addressed at manufacturing level especially the elastic band that is used for the ear, the hemming of the mask on the nose with a clip to reduce the gap.

(2) There are masks with flexible strings. These masks, due to absence of elastic bands, do not strain ears. However, awareness of such masks is obviously low. Thus communication about alternate CAB aids like flexible strings masks, masks made from soft fabrics which are non-irritating, masks with nose clips, etc. must be improved. Alternate variants to be promoted at local level and services to be scaled-up.

(3) In view of higher proportion of women and children being non-compliant, the communication should be focussed on these audiences.

(4) All respective guidelines that included provision of safer mask disposal services needs to be reinforced given that these services are abysmally available across all points at the malls (gyms, saloons, yoga centres), open and organized markets, food outlets (restaurants, street food), religious places and metro, bus and railway stations with focus beyond entrance, key common areas and exit points.

2	Maintaining physical distance of 2 meters	'Not maintaining distance of 2 meters has emerged as a classic case of low threat perception level. It is the second most non-compliant behaviour at 8.62%. Among the non-compliant, '*Being too close'* was the most common incorrect practice at 38% and it was followed by *'crowd of three or more standing together'* at 36% and *'not standing/sitting in the designated place'* at 27% place across, gender, age, and sites in the district. Low adherence could be also an issue of low compliance of MOHFW guidelines and SoPs especially limited signs and symbols across all points at the malls (gyms, saloons, yoga centres), open and organized markets, food outlets (restaurants, street food), Religious places and Metro, Bus and railway stations with focus beyond entrance, key common areas and exit points. *Recommendations:* *(1) Enhance threat perception vis-à-vis COVID-19 especially 'not maintaining 2 meters of distance all the time through repetitive communication.* *(2) Due to higher levels of non-compliance women and children should be the audiences in focus.* *(3) All respective guidelines that included signs and symbols, capping of maximum number of people and ventilation needs to be reinforced across all points at the malls (gyms, saloons, yoga centres), open and organized markets, food outlets (restaurants, street food), religious places and metro, bust and railway stations with focus beyond entrance, key common areas and exit points.* *(4) Specifically, at the metro stations in Delhi the steps in escalators could be alternatively painted in red and green with proper signage to encourage passengers to stand only on the green coloured step.* *(5) Communication nudges for maintaining physical distances should be given through scientifically developed IEC* *(6) Metro train dwell timings should be further increased by 10-20 seconds to reduce clutter during disembarkment. This change should be frequently announced inside the trains through the public address system.*

3	**Touching of frequently touched spaces with linkages with hand hygiene**	Lack of hand-hygiene and touching of frequently touched surfaces behaviour was observed under the survey and it was found to be the third most non-compliant behaviour at 7.54%. However, 78.4% of these non-compliant people were not using sanitizer after touching of surfaces. Handles, Handrail/Escalator/Staircase/Counter Top, vending machine and goods are found to be the five most common surfaces that are frequently touched with bare hands. The top four most reasons for not hand-washing are related to low threat perception of COVID-19 (1) I wash my hands with soap on reaching home/office-20%; (2) I get allergic reactions to soaps and sanitatisers-16%; (3) we must clean hands as we can get Coronavirus from surfaces like railings, handles etc. -14%; and (4) Surfaces which are touched by many people can transmit virus -13%. *Recommendations:* *(1) Enhance threat perception vis-à-vis COVID-19 especially 'COVID-19 could be transferred from high contact places' and 'transmission could be prevented through hand washing with soap/sanitizing'.* *(2) Economical and easy to carry liquid soap/sanitizers could be promoted.* *(3) More communication focus on children and women is required as they are more non-compliant.* *(4) All respective guidelines that included availability of hand-washing/sanitization facilities need to be reinforced across all points at the malls (gyms, saloons, yoga centres), open and organized markets, food outlets (restaurants, street food), Religious places and Metro, Bust and railway stations with focus beyond entrance, key common areas and exit points.* *(5) Communication nudges for frequent hand sanitisation and keeping off from touching frequently touched surfaces need to be put in place through visual approaches*

Strategic Reccommedations-2 CAB-Barrier, Target and Location Based Interventions	Extensive use of CAB barriers and survey findings to develop, inform and strengthened local RCCE plan as well as their implementation and monitoring.

Strengthen RCCE evidence informed localized planning process and behaviour specific endeavours.

a. **Enhanced coordination with IEC/RCCE stakeholders on the CAB evidence generation and use for local planning:** The CAB-BSS is providing significant amount of data that could be used by all partners working in Delhi on COVID Behavioural programmes. It is suggested that under the leadership of Govt. of Delhi and NCDC, all partners plan on the use of BSS data, develop programme plans and monitor with obligation of 'complementarity, in role, support and resources-as situation needs more partners on the ground supporting government in their endeavours vs. in duplication of efforts. A RCCE Partners Engagement Framework should be drawn and role of all partners against key interventions including evidence generation, planning, coordination, implementation, monitoring and evaluation, knowledge management and documentation should be stated for clarity & alignment purposes.

b. **Develop District based COVID RCCE plans:** BSS provides district level information on CAB covering prevalence, compliance to SOPs and barriers to behaviours based on the locations identified. Given the situation in high COVID-19 impacted states, states RCCE plans may not be the answer to the local needs, where local issues are required to be identified, and addressed. With BSS district level data, local plans are suggested to be developed and in close coordination with IDSP team, local transmission factors are addressed.

c. **RCCE Coordination group at the District level:** Under the leadership of health department and DC, a small group could be formalized who will supervise the local RCCE planning, implementation, monitoring process based on BSS data. These groups will report to the state and ensure coordination with Epidemiological teams for seamless coordination in control and containment area.

d. **Barrier-based, Target Audience Based and Location Based behavioural campaign or thematic Community Engagement Initiatives:** BSS provides granular information on the CAB and barriers to their practice from gender and location lens. Therefore, this information is suggested to be used by the partners and Government of Delhi to design barriers based campaigns, messages, social experiments, innovations etc.

For more information contact:

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