

COVID-19 Vaccination Penetration in the Urban Poor

Chennai, Mumbai, Ahmedabad, Kochi July 2021





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1. Background

The first phase of India's COVID-19 mass inoculation programme was launched on 16 January, 2021, covering initially the healthcare and front-line workers. On 1st March, 2021, the country initiated the second phase, aiming to cover people above-45 years of age with co-morbidities and the cohort above 60 years of age. This was expanded on 1st April, 2021, to cover everyone above 45 years. On April 28, 2021, the government of India announced that people above 18 years could register for the vaccination.

According to the Ministry of Health and Family Welfare data¹, as of June 15th, 2021, India has administered 262 million doses of COVID 19 out of which 212.7 million are the first dose and the remaining 49.3 million are the second dose. If we go by the population projections by Census for India² in 2021, then as of June 15th, 2021, India has administered the first dose to 15.6% of its citizens and have fully vaccinated (both doses) 3.6 per cent of its total population. If we consider only the 18+ population as a base, by June 15th, India had administered the first dose to 25% of its 18+ citizens, and fully vaccinated 6% of the same target set of population.

The objective of this research was to collect quantitative evidence on aspects around vaccine penetration in the urban poor in four cities; Chennai, Ahmedabad, Mumbai and Kochi. This includes vaccine awareness, uptake, reasons for non-uptake, location of vaccine source and understanding how vaccines were co-ordinated.

2. Methodology

As part of the Jana-Brown Citizenship Index project³, a large-scale, representative, on-ground, household survey was undertaken, as part of which, 11,124 citizens were sampled, recruited, and surveyed in Chennai, Mumbai, Ahmedabad and Kochi in the year 2019. The project seeks to landscape the status of services and infrastructure and aspects of citizenship across citizens from different demographics.

As part of the methodology, households were categorised on the basis of their construction materials and infrastructure to serve as an indication of the socio-economic status of the household. The categorisations were as given below. Full details of the categorisations can be found in Appendix 1.

- Housing Type 1: Informal settlement (shack)
- Housing Type 2: Informal settlement (slum)
- Housing Type 3: Lower middle-class housing
- Housing Type 4: Middle-class housing
- Housing Type 5: Upper-class housing

Citizens from Housing types 1 and 2 (collectively called 'urban poor' for the purposes of this report) formed the basis of the sample for this research. Table 1 shows the number of individuals from each of these household types who were part of the earlier survey in the four cities and therefore formed the sample frame for this research. As can be seen, the majority of citizens available to sample were residing in slum settlements, rather than informal shack settlements, particularly in Kochi.

¹ See: <u>https://www.mohfw.gov.in/pdf/CumulativeCovidVaccinationCoverageReport15thJune2021.pdf</u>

² See: <u>https://nhm.gov.in/New Updates 2018/Report Population Projection 2019.pdf</u>

³ For more information, see: <u>https://www.janaagraha.org/citizenshipindex/</u>



	C	hennai	Ahmeda	abad	Mun	nbai	Kochi		
Citizens from:	n	%	n	%	n	%	n	%	
HT1 (shacks)	255	31	202	20	271	36	71	13	
HT2 (slums)	564	69	803	80	485	64	484	87	
Total	819	100	1005	100	756	100	555	100	

Table 1: Sample frame of available citizens by housing type and city

For the purposes of this research, all citizens as listed in Table 1 were called by phone and the survey was administered over the call to those willing to take part. All interviews were conducted in the local vernacular language, Hindi or English. Table 2 summarises the number of calls made and outcome of the calls, by city. Table 3 shows the breakdown of successful interviews by those calls answered.

Table 2: Call status in the four cities

	Chennai		Ahmedabad		Mumbai		Kochi	
Option	Ν	%	N	%	Ν	%	Ν	%
No Answer	165	14%	162	13%	84	10%	16	3%
No Connection/Switch off/Busy	425	37%	287	23%	318	38%	99	16%
Invalid numbers	121	10%	393	31%	79	9%	125	20%
Phone answered	451	39%	418	33%	365	43%	370	61%
Total Calls	1162	100%	1260	100%	846	100%	610	100%

Table 3: Breakdown of successful calls by those answering the phone

	Chennai		Ahmedabad		Mumbai		Kochi	
Option	N	%	N	%	N	%	Ν	%
Successful interview	299	66%	309	74%	300	83%	273	74%
Did not want to participate	152	34%	72	17%	44	12%	95	26%
Call back later	0	0%	37	9%	17	5%	2	1%
Total	451	100%	418	100%	361	100%	370	100%

Surveys were done between the following dates in each city:

- Chennai: May 6- May 28, 2021.
- Ahmedabad: May 6- May 27, 2021.
- Mumbai: June 1 June 14, 2021.
- Kochi: June 1 June 14, 2021.

3. Results

3.1 Achieved Sample

Between 273 and 309 citizens were interviewed in each of the four cities. Table 4 shows the achieved sample in each city by background characteristics. Except in Chennai, the sample is slightly bias towards males. In Ahmedabad and Mumbai our sample is skewed towards younger citizens. The majority of



citizens in all cities were residing in informal slums rather than informal shacks. This was particularly the case in Kochi.

	Chennai			Ahmedabad			Mu	mbai	Kochi		
Age Categories	Ν		%		N	%		N	%	N	%
equal to or above 45		104		35%	76		25%	58	19%	139	51%
less than 45		124		41%	146		47%	238	79%	133	49%
Did not reveal		71		24%	87		28%	4	1%	1	<1%
Gender categories	Ν		%		N	%		N	%	N	%
Female		146		49%	77		25%	105	35%	116	42%
Male		109		36%	179		58%	195	65%	157	58%
Did not reveal		44		15%	53		17%	0	0%	0	0%
Housing Type	Ν		%		Ν	%		Ν	%	N	%
Informal shack (HT1)		95		32%	84		27%	107	36%	39	14%
Informal slum (HT2)		204		68%	225		73%	193	64%	234	86%
Total		299		100%	309		100%	300	100%	273	100%

Table 4: Achieved sample demographics by city.

3.2 Vaccination Awareness and Penetration

Nearly all urban poor citizens were aware of the vaccination drive for COVID-19; 97% of the total respondents in Mumbai, 100% in Kochi, 98% in Chennai, and 91% respondents in Ahmedabad. In Ahmedabad, there was no consistent pattern of unawareness across gender, age or housing type.

Table 5 shows vaccination penetration by city and a range of background characteristics. In our sample, vaccine penetration was greatest in Chennai with 67% of urban poor citizens reporting having taken at least the first jab.

As would be expected due to the roll-out framework, penetration of the vaccine is higher for those over 45 years of age, especially for the second dose but also the first dose in all cities except Chennai. In Chennai, a larger proportion of women have had the vaccine with this being particularly evident in first dose administration while in Mumbai a larger proportion of women have had both doses as compared with women. There are no consistent patterns across cities for citizens from different housing types with regards to vaccine penetration though Mumbai shows the most equal distribution across the two housing types.

	Overall	Gender				Age	Housing Type		
		Male	Female	Did not	<45	45=>	Did not	HT1	HT2
Chennai				reveal			reveal		
Yes, but only the first dose	57%	50%	61%	59%	60%	61%	45%	66%	52%
Yes, I've had both doses	10%	9%	11%	11%	1%	23%	8%	6%	12%
Ν	299	109	146	44	124	104	71	95	204
	Overall	Male	Female	Did not	<45	45=>	Did not	HT1	HT2
Ahmedabad				reveal			reveal		
Yes, but only the first dose	23%	21%	22%	30%	18%	34%	21%	21%	24%

Table 5: Vaccine penetration by city and background characteristics



Yes, I've had both doses	15%	18%	6%	13%	10%	22%	15%	20%	12%
N	309	179	77	53	146	76	87	84	225
	Overall	Male	Female	Did not	<45	45=>	Did not	HT1	HT2
Kochi				reveal			reveal		
Yes, but only the first dose	20%	21%	19%	NA	7%	33%	0%	8%	22%
Yes, I've had both doses	4%	5%	3%	NA	3%	6%	0%	3%	5%
N	273	157	116	NA	133	139	1	39	234
	Overall	Male	Female	Did not	<45	45=>	Did not	HT1	HT2
Mumbai				reveal			reveal		
Yes, but only the first dose	28%	28%	27%	NA	24%	43%	25%	27%	28%
Yes, I've had both doses	7%	5%	10%	NA	5%	14%	0	6%	7%
N	300	195	105	NA	238	58	4	107	193

As can be seen in Figure 1, penetration of the vaccine in the urban poor in our sample is higher than for each respective city and state except in the case of Kochi. In the case of Chennai, the proportion who are vaccinated in the urban poor is particularly high.

Figure 1: Vaccination penetration in urban poor vs. city-wise (18 years +) – at least first jab^4



3.3 Reasons for Not Taking the Vaccine

3.3.1 Not taking the First Dose

In terms of reasons for not taking the vaccine at all yet, the two most dominant reasons cited by citizens in all cities were lack of time and concerns over side effects (see Figure 2). Additionally, in Kochi, not being able to secure a slot was a particular issue. Lack of slots was also the main concern in Mumbai along with non-availability of the vaccine when citizens went for an appointment. In Ahmedabad, it's important to remember that 9% of citizens were not aware of the vaccination drive at all. There was almost no concern around not having the money to pay for the vaccine; across the sample only seven

⁴ Whole city and relevant state data taken from the Cowin Dashboard for data up to and including for June 11th, 2021 to match the cut off data of our survey. <u>https://dashboard.cowin.gov.in/</u>. The base populations were taken from the census projections as per the national commission of population. The proportion of 18+ population for each city were computed from 2011 census database and using the same proportions, the base population figures for 18+ in each city were computed.



citizens mentioned this as a barrier to taking the vaccine (across both 1st/2nd jabs). Likewise, lack of a laptop/smart phone to register for the vaccination was not the predominant concern in any city though was more of an issue in Kochi than other cities.



Figure 2: Main reasons for not taking the vaccine at all yet – by city

3.3.2 Not Taking the Second Dose

The main reason for having not taken the second dose of the vaccine yet was simply because it was not due as seen in Figure 3. This was the case across the cities. Non-availability was an issue mentioned by some citizens in both Ahmedabad and Chennai.



Figure 3: Main reasons for not taking the 2^{nd} dose of the vaccine yet – by city

3.4 Source and Organisation of Vaccine

The majority of the urban poor in the sample, in both Kochi and Mumbai, received the vaccination at a government hospital/institution as can be seen in Table 6. Since these institutions do not charge for the vaccination, this may help explain why money was not a predominant barrier in vaccine uptake.

Source	Kochi	Mumbai
Government hospital/institution	87%	76%
Private hospital/institution	12%	17%
Other	1%	8%
Total	100%	100%

Table 6: Source of vaccination by city

*This question was not asked in Chennai or Ahmedabad.

In terms of how citizens' vaccinations were organised, it can be seen in Figure 4 that most urban poor citizens visited a hospital or vaccination centre without an appointment. This may explain why access to a smart phone or laptop was not a barrier to get the vaccination, as mentioned above. The next most common method was through one of the designated apps while in Kochi, area corporators//MLAs/MPs helped to arrange the vaccine for many citizens. In Mumbai, just over 10% of citizens reported that their employer arranged the vaccination for them.





Figure 4: Organisation of vaccination – by city (Kochi & Mumbai only)

4. Discussion

Overall awareness of the vaccination drive for COVID-19 is very high across the four cities. Penetration of the vaccine of the urban poor in our sample is higher than city and state averages (for over 18-year olds) in all cities except Kochi where it is a little lower. This needs further exploration along with Chennai's particularly high vaccine penetration.

Where the urban poor have traditionally been marginalised when it comes to access to services, this is not the predominant narrative across the cities of study here. However, time-poverty certainly seems to be a predominant reason for non-uptake of the vaccination by many urban poor citizens as well as concern over side effects by some. While time needs to be spent to have the jab, side effects can possibly compromise more time if they prevent citizens from working for example. The urban poor may face loss of wages and will need to consider this viz a vis the benefits of vaccination. These concerns reign highest among the urban poor in this study's sample along with non-availability of slots and vaccines in some cities. Money was not a top-of-mind concern to taking the vaccination and neither was ability to access the apps on phones/computers. Many citizens have been able to walk into vaccination centres without a prior appointment to be vaccinated while, yet others have been supported by elected representatives and employers in accessing vaccines.



Appendix 1

Category 5 Dwellings (HT-5): Upper-Class Housing



- Independent house or apartment building.
- Often constructed using materials such as wood and glass in addition to metal and concrete.
- If house, multiple rooms, one family or joint family lives there. Generally, not multiple independent units of unrelated families within one house. Can assess this by single mailbox on the outside, single address marked doorway entrance.
- Usually has surrounding wall with gate in front of house.
- If apartment building will also have wall and gate with security guarding entrance.
- Often apartment complexes/gated communities. Amenities such as a swimming pool, shopping mall, gym, will be inside of complex.
- Size of individual apartments will be large.
- Multiple balconies for one apartment.
- Large windows.

Category 4 Dwellings (HT-4): Middle-Class Housing



- Independent house or apartment building.
- If independent house and large (more than three BHK) often a shared dwelling between independent family units which can be indicated by multiple mailboxes and diff event entrances.
- There may be a gate but usually no high wall present around house.



- Apartment buildings often have outdoor staircases, may have a gate entrance to building but generally not part of a complex or gated community.
- Often mostly concrete but some have additional materials such as glass/wood/brick, etc.
- Apartments often have private balconies

Category 3 Dwellings (HT-3): Lower Middle-Class Housing



- Apartments and houses are most often made only of concrete.
- Windows are often smaller.
- Houses are small, often two-three rooms with concrete roofs.
- Often in neighbourhoods containing Housing Type 2s and Housing Type 1s.
- Sometimes Interspersed with commercial shops/denser neighbourhoods.
- Apartment buildings may often be above small shops, often no gate around apartment building.
- May often have shared balconies across units.
- JNNURM social housing built for slum relocation; these buildings are often green and white with JNNURM printed
- on the side. Small concrete open windows/no glass, inside staircases, community bathrooms.

Category 2 Dwellings (HT2): Slums-informal settlements



- One-room pukka row house.
- Corrugated metal roof.
- Dwellings are densely packed.
- Often not located on a main street, instead located behind buildings and in narrow streets/gullies.



- Few windows, small windows, often shutters not glass.
- One entrance opening directly onto the street/gully

Category 1 Dwellings (HT1): Shacks- Informal Settlements



- Self-built dwelling often made from: reclaimed wood, fabric, tarpaulin, corrugated metal, sackcloth.
- Located on street-fronts, in vacant lots, behind buildings, on sidewalk, road medians, small green spaces, large slums, under overpasses, construction sites.
- Can be two floors or one floor.
- Can be a family living inside a larger vacant and abandoned/under-construction non-self-made structure, but often using self-made materials within that building (tent, etc.).