

COVID-19 Vaccination & Migrants:

Leaving No One Behind

Research Report

June 2022



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COVID-19

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Foreword

During the pandemic, we have rediscovered the value of migrants in society and the national economy. Hence, holistically addressing the issues of migrants' health is a priority for all of us, ensuring their inclusion in the vaccination programme. And, since the pandemic may have long-lasting consequences, we must devise innovative initiatives towards ensuring that they remain safe and healthy. Their status and mobility across the country in diverse regions make them more vulnerable to such challenges.

While appreciating the success of the national COVID-19 vaccination programme, IOM (in partnership with UNFPA) recognised the need to carry out a country-wide study identifying the key factors behind the hesitancy, acceptance, and accessibility of the vaccines amongst the migrants across the country. Through this study, we hope to have a more robust collective understanding of the ways to get the migrants included in the ongoing vaccination drive. While the pandemic has disrupted mobility patterns and stressed the public health systems, it has also offered opportunities to build better management frameworks.

Migration is a social determinant of health that can impact the overall well-being of individuals and communities. The social and economic impacts of the pandemic have disproportionately affected women because of existing and exacerbated inequalities. Hence, migrant-sensitive and gender-responsive communication strategies and interventions are necessary to ensure easy access to life-saving resources. Further, in alignment with the 2030 Agenda on Sustainable Development Target 3 related to 'Good Health & Well-Being,' there is a need to develop a more comprehensive and long-term vision for addressing the health of migrant workers, including immunisation and psychosocial health and well-being.

Sanjay Awasthi

India Head of Office

International Organization for Migration

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Acronyms

Acronym	Definition
ANM	Auxiliary Nurse Mid-wife
ASHA	Accredited Social Health Activist
COVID	Coronavirus Disease
FSU	First Stage Unit
GCC	Gulf Cooperation Council
IMN	India Migration Now
IOM	International Organization for Migration
NCR	National Capital Region
OPD	Outpatients Department
OTC	Over the Counter
OTP	One Time Password
PDOT	Pre-departure Orientation trainings
PAO	Pre-Arrival Orientation
RAT	Rapid Antigen Test
RT-PCR	Reverse transcription polymerase chain reaction
UNESCO	United Nations Educational, Scientific and Cultural Organization

Definitions

Terms	Definitions
Awareness	Awareness is defined through the following three questions: 1. Have you heard of a disease called COVID-19? 2. If yes, do you know the symptoms of COVID-19 infection? 3. Do you know how COVID-19 infection spreads and how to protect yourself?
Self-employed worker	Persons who are engaged in independent trade, professions or occupations rather than working for an employer are considered self-employed.
Regular salaried worker	Regular salaried employees are hired workers on a permanent payroll from their employers. They are usually skilled workers and are entitled to all types of social security benefits.
Casual wage labour	Casual wage labour means working for daily wages or on a periodic work contract.
Household work	Regular or daily work in a household or on a farm, that is integrated with care work, either on a paid or unpaid basis.
Feature phone	A mobile phone that incorporates features such as the ability to access the internet but lacks the advanced functionality of a smartphone.
Smart Phone	A mobile phone that performs many of the functions of a computer, typically having a touchscreen interface, internet access, and an operating system capable of running downloaded apps.
Infodemic	According to the WHO ¹ , an infodemic is too much information including false or misleading information in digital and physical environments during a disease outbreak.

¹ https://www.who.int/health-topics/infodemic#tab=tab_1



Executive Summary

India rolled out one of the world's largest vaccinations drives to immunise people against COVID-19. As of June 2022, after over a year since rolling out the world's largest COVID-19 vaccination drive, 70% of the total population of ages 18 and above in India has been fully inoculated against SARS-CoV-2 and 64% vaccinated with at least one dose.

Human mobility has been drastically impacted since the announcement of the first COVID-19 lockdown in March 2020, as measures were put in place to respond to the rising caseload and the identification of newer variants. The impact of the lockdowns has especially been harsh on the informal sector, which accounts for the largest proportion of employment in India. Mobility restrictions imposed in 2020 and 2021, particularly affected migrant workers relocating back and forth between their communities of origin and destination.

India rolled out one of the world's largest vaccinations drives to immunise people against COVID-19. As of June 2022, after over a year since rolling out the world's largest COVID-19 vaccination drive, 70% of the total population² of ages 18 and above in India has been fully inoculated against SARS-CoV-2 and 64% vaccinated with at least one dose. The multi-sectoral approach and public-private partnerships, along with the use of technology and robust monitoring systems contributed to reaching the last mile population for inoculation. However, despite proactive communication and mobilization by the Union and State governments, a range of individual and systemic barriers affect the motivation and ability to access vaccines. India's migrant workers are some of those who have been significantly affected by the COVID-19 pandemic and face preventable barriers while accessing protective resources.

About the Study

The study, titled "COVID-19 Vaccination & Migrants – Leaving No One Behind", attempts to explore the migrant-specific nuances that ascertains the extent of access to the COVID-19 vaccines. The study captures the attitudes, knowledge and perceptions that influence migrant workers either towards vaccine hesitancy or acceptance. The study predominantly covers internal migrant workers whose place of origin and destination are within the country's borders. A small cohort of international migrant workers who returned to India due to the mobility restrictions and regulations were also surveyed to understand the determinants that deter optimal vaccination coverage for them.

A total of 2,189 internal migrant workers were surveyed from 10 million-plus migrant-receiving cities (i.e., those having more than a million population as per Census 2011) across India. The cities included Bengaluru, Delhi, Hyderabad, Kanpur, Kochi, Kolkata, Ludhiana, Pune, Surat, and Tirupur. A list of migrant-dense localities (clusters) within the selected cities were mapped using local knowledge from a network of grassroots organizations and native enumerators. Within each cluster, a combination of systematic random sampling with snow-balling technique was applied to identify the respondents. A mobile-based survey using Kobo Forms Application was used for data collection.

² https://ourworldindata.org/covid-vaccinations?country=OWID_WRL

Anticipating a high dropout rate, around 650 international migrant workers were identified and contacted through a network of recruitment agencies.

Data from a sample of 303 international migrant workers were collected over the telephone as well. Anticipating a high dropout rate, around 650 international migrant workers were identified and contacted through a network of recruitment agencies. The surveys were conducted over a period of 2 months (December 2021 to January 2022) amid the rampant third COVID-19 wave. The same survey tool was used for both internal and international migrants survey.

This report is structured into six chapters and an Annexure. The first chapter gives a brief overview of the current COVID-19 scenario as of January 2022. The second chapter delineates the methodology, sampling design and key research questions. The third and fourth chapters present the key findings of internal and international migrant workers, respectively. The fifth gives a summary of the key observations from the findings, which serves as basis for the migrant-specific recommendations in chapter six to ensure that this vulnerable population fully benefits from the National COVID-19 Vaccination programme. The survey tool and consent forms used for the study are provided in the Annexure.

Key Findings & Recommendations

Key findings and observations are presented below which provide the basis for migrant-specific recommendations and advocacy to ensure migrant workers fully benefit from the National COVID-19 Vaccination programme.

KEY FINDINGS

Internal Migrant Workers

Background characteristics

- Over three-fourth of the respondents were men (78%), with two-thirds (64%) falling between the ages of 25 to 44 years.
- Among the 22% of women respondents, about two-third fall between the ages of 25 to 44 years.
- One-third of the women (32%) had never attended school, with the same among 23% of men.
- Most women worked in the garment industry (44%), while most men worked as casual wage labourers (36%).
- Only 17% of the men were on a regular payroll under a contract, which was very low for women at 8%.
- Close to a third of the men had set up their own businesses and considered themselves to be self-employed.
- Only 10% of men had no access to a feature or smart mobile phone, whereby 26% of women has no access to mobile phone.

Awareness about COVID-19 Vaccination

- 91% were aware of the COVID-19 vaccination programme and 49% got their information from the television.
- Most women (40%) sought information from their family and friends.

- 21% of both women and men also resorted to informal channels such as social media and web-based searches.
- However, 17% reported not being able to access information in the language of their preference.
- A majority of the respondents (86%) had knowledge on the location of the nearest vaccine administering facility.
- About 92% knew that that COVID-19 vaccines were available free of cost.

COVID -19 Vaccination Administration

- 91% received their first dose of the COVID-19 vaccine as of February 2022.
- Of those who received their first dose of the COVID-19 vaccine, 37% were self-motivated to take the vaccine.
- Among women, discussions with family members (20%) influenced their decision to get the COVID-19 vaccine.
- Employers played a role as well in motivating people to get them registered and vaccinated against COVID-19 (8%).
- 44% preferred to directly approach the COVID-19 vaccination center to get a shot without prior registration.
- Only 16% (13% of women and 17% of men) had registered online via the CoWIN application.
- Over 42% found the nearest government-run facility to be within walking distance, as compared to 27% who could walk to private facilities within their area of residence.
- 80% of the respondents reported that all eligible women in their family got at least one dose of the COVID-19 vaccine.
- 68% believed the COVID-19 vaccine to be effective and about 75% of the respondents had confidence in health care professionals administering the COVID-19 vaccine.

COVID-19 Disease Awareness

- 98% of the surveyed migrant workers were aware of the ongoing COVID-19 pandemic.
- Regarding the symptoms, 91% knew about fever, followed by cough (83%) and around half of them identified breathing difficulties as one of the symptoms when infected with COVID-19.
- More than half of them (52%) access their COVID-19 related information from local television news channels.
- 49% of women migrant workers relied on family and friends for pandemic-related information, while 45% of men resorted to information received over their mobile phones.
- About 17% of the respondents did not know where and how to access COVID-19 related information
- 45% felt that they were at any risk of getting infected by COVID-19.

COVID-19 Appropriate Behaviours

- A majority of the respondents (84%) wore masks to protect themselves against the virus.
- 62% of women wore masks always while only 40% of men did the same.

- 94% reported practicing COVID-19 appropriate behaviour to protect themselves against the virus.
- 80% of the respondents spent money out of their own pockets on face masks and hand sanitizer for themselves and their families.
- About 10% reported receiving limited communication on the different protective measures, particularly at their place of work.
- Due to the crowded nature of their work, about 11% also stated to not having the liberty to maintain adequate distance between their colleagues.

COVID-19 Diagnosis and Incidence

- Half the respondents had undergone either the Rapid Antigen test or the RT-PCR test and among them, half (51%) had only taken it once, while 33% took the tests twice and rest took the tests more than two time.
- The reasons for getting a COVID-19 testing include voluntarily tests upon showing symptoms (23% women and 17% men); around a third of them said that testing was mandatory at their workplace and 27% percent were subjected to a COVID-19 test at district and state border checkpoints during intra-state and inter-state travel.
- 96% reported testing negative for COVID-19.
- About 12% reported to knowing a close associate or family member who tested positive for COVID-19.

Barriers to Vaccination

- Some barriers that delayed their vaccination include the cost (about 10% paid out of pocket) and the requirement for identification documents (14%).
- About 22% found it difficult to understand instructions on vaccine administration at the centres, including reading and filling out forms, following directions etc.

Vaccine Hesitancy

- Close to 19% reported to delay vaccine administration due to concerns over the manifestation of adverse effects post administration.
- Among those who had not taken the first and/or the second dose of the vaccine, 68% believe the COVID-19 vaccine to be effective, while about 23% are not sure on the same and 8% had no confidence in the effectiveness of the COVID-19 vaccine.

International Migrants

- 8% of international returnee migrants reported to have been tested positive for COVID-19.
- 66% of the respondents mentioned that the internet was their major source information about the vaccination programme, followed by family and friends (62%).
- Hospitals and health centres were also major sources of information (48%).
- Almost all respondents had registered online for the COVID-19 vaccination.
- More than 90% did not face any barrier while getting vaccinated.
- Among those who faced barriers, internet connectivity issues and problem with identification documents were cited by them.

Key Recommendations

Based on the findings of this study, the following key recommendations and action points for a migrant-sensitive and inclusive approach to improve the COVID-19 vaccination reach and coverage amongst the most vulnerable mobile groups in India are highlighted:

- **Enhance risk communication and community engagement** through migrant-specific and gender-sensitive interventions. A two-pronged strategy may be adopted – in the localities where migrant population reside and through potential employers for outreach and to mobilize the demand for COVID-19 information and vaccination. Use of appropriate and preferred languages of migrant population should be used to enhance last mile reach.
- **Women and gender-diverse migrants** require attention to understand their health decision agency, circumstances during movement, extent of participation socio-economically, the changing role of women in the family and community and the dynamics of kinswomen in migrant households, thereby informing communication strategies necessary to promote easy access to vaccination.
- **Orientation of relevant stakeholders on migrant sensitive services**, especially among health functionaries at all levels, employers, recruitment agencies and private sector stakeholders in migrant-receiving states. This will mitigate the stigmatization of migrant workers, create a deeper understanding of various cultural and social needs, as well as build migrant's trust in the health and vaccination systems to improve vaccine confidence and acceptance.
- **Leveraging the strengths of the Civil Society Organizations** is important as they played a significant role in supporting migrants during the lockdowns and hence can further improve vaccine information and vaccine coverage.
- **Conduct Population Mobility and Vulnerability Mapping** of migrant population at destination states and cities to understand the subtleties, dynamics and patterns of the mobility continuum, thereby supporting migrant-inclusive resource allocation and strengthening the design and implementation of migrant-specific public health interventions.
- **Develop a deeper understanding** on the perceived risks and benefits, the social processes and norms that drive and inhibit vaccination, precarity and exclusionary factors, and practical factors (availability, ease and extent of access, service quality, respect from providers etc) that influence decision-making.
- **Returning migrants from overseas locations** should not be left behind in the COVID-19 vaccination outreach efforts. Awareness on credible sources of information on COVID-19 vaccination mandates and national programmes in target host countries should be made part of the reintegration and resettlement initiatives.



Introduction

The onset of the COVID-19 pandemic affected the lives of people across the world on a scale previously unimaginable. The pandemic reshaped the world as we know it to be, and challenged public health systems, social protection programming, employment structures, border management and human mobility.

COVID-19 Vaccination And Migrants

The onset of the COVID-19 pandemic affected the lives of people across the world on a scale previously unimaginable. The pandemic reshaped the world as we know it to be, and challenged public health systems, social protection programming, employment structures, border management and human mobility. The impact of the lockdowns has especially been harsh on the informal sector, which accounts for the largest proportion of employment in India. The mobility restrictions imposed throughout 2020 and 2021 (Figure 1), particularly affected migrant workers who had to relocate back and forth between their communities of origin and destination.

The COVID-19 pandemic triggered rapid development, emergency use authorization, and unprecedented collaborative efforts between various stakeholders. Integrated control and facilitation centres were set up in almost all states to provide all types of COVID-19 related interventions and data. Collaborations and partnerships has thus proved to strengthen the government's efforts

in the fight against the pandemic. However, mid 2021, compounded by the rapid, incessant and fatal waves of the pandemic, the already overwhelmed public health system was confronted with the urgency to vaccinate as many people as possible.

The government of India constituted a National Expert Group on Vaccine Administration for COVID-19 (NEGVAC) to provide guidance on all aspects of COVID-19 vaccine administration in India³. The multi-sectoral approach and public-private partnerships, along with the use of technology and robust monitoring systems contributed to reaching the most-hard-to-reach. WHO, UN agencies, and USAID developed training programmes for various groups on COVID-19 vaccine administration, management, psycho-social counselling, etc. More than 1,80,000 doctors, nurses, paramedics, pharmacists, sanitary workers, police, frontline health workers, and volunteers were trained with the help of these agencies, thus expanding coverage and reach to interiors and rural areas within the country, as reported by NITI Aayog⁴.

³ Kumar, V.M., Pandi-Perumal, S.R., Trakht, I. et al. Strategy for COVID-19 vaccination in India: the country with the second highest population and number of cases. *npj Vaccines* 6, 60 (2021). <https://doi.org/10.1038/s41541-021-00327-2>

⁴ <https://www.niti.gov.in/role-indian-innovation-ecosystem-fighting-pandemic>

Figure 1: COVID-19 stringency index

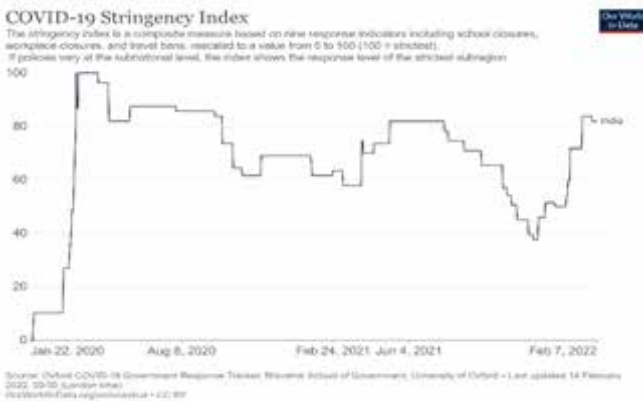
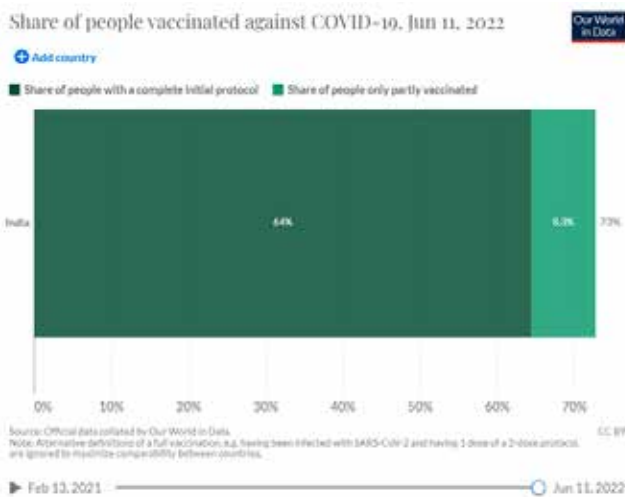


Figure 2: COVID-19 vaccination rates in India (as of February 12, 2022)



India thus rolled out one of the world’s largest vaccinations drives to immunise people against COVID-19. As of June 2022, after over a year since rolling out the world’s largest COVID-19 vaccination drive, 64% of the total population⁵ of ages 18 and above in India has been fully inoculated against SARS-CoV-2 with 73% vaccinated with at least one dose (Figure 2). The fact that about 30% of the adult population remain unvaccinated despite all efforts, indicate that greater focus should be highlighted on the barriers vulnerable migrants face in bringing the pandemic one step closer to its containment.

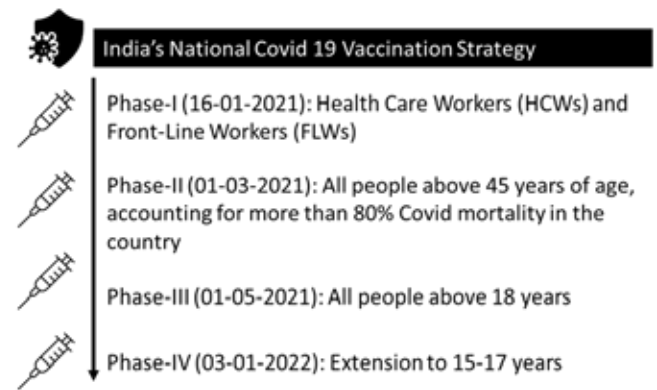
⁵ https://ourworldindata.org/covid-vaccinations?country=OWID_WRL

⁶ <https://www.mohfw.gov.in/pdf/GuidelinesforCOVID19VaccinationofChildrenbetween15to18yearsandPrecautionDosestoHCWsFLWs&60populationwithcomorbidities.pdf>

⁷ <https://selfregistration.COWIN.gov.in/>

India’s national vaccination drive has had three phases, with each progressive phase encompassing larger segments of the population based on their vulnerability to the disease. The roll-out started with front-line workers and those 60 years of age and above, and then gradually encompassing people over 18 years of age⁶ and as of 2022, to those over the age of 15. To meet the burgeoning demand of its population, India’s strategy has been a mix of indigenous vaccine development and manufacturing, as well as procuring vaccines externally⁷. The different phases of the drive are presented in Figure 3.

Figure 3: Phases of India’s COVID-19 Vaccination Drive



Source: <https://www.mohfw.gov.in/pdf/RevisedVaccinationGuidelines.pdf>

As migration trends continue to evolve with time, the need of the hour is to formulate evidence-based practices that ensure migrant and mobile populations are being protected in this fight against the pandemic. The healthier migrants are and remain, the more positively they can contribute to the socio-economic development of the country. With an enhanced understanding of behavioural and factorial nuances, comprehensive and inclusive vaccination and protection measures can be formulated starting with a tailored migrant-specific outreach strategy, thereby leaving no one behind.

Internal Migrants

According to the Indian Census data of 2011, close to 500 million people were classified as internal migrants⁸, with women representing 68% of this mammoth number. Most internal migrants in India move short distance, either within or between nearby districts. The most prevalent stream of migration is rural to rural (62%), followed by the rural to urban stream (20%), urban to urban (13%), and urban to rural migration (5%)⁹ ¹⁰. Push and pull factors for migration to urban centres due to better prospects within both formal and informal sectors, be it manufacturing, construction, hospitality, textile or transportation, contribute to occupying about 46% of urban spaces by migrant workers¹¹. Rural to urban migration is thus integral to the economy of urban spheres across India.

A report published by the Parliamentary Standing Committee on Labour (August 2021) stated that around 11,430,000 migrants returned to their home state following the announcements of a country-wide lockdown during the first wave of COVID-19 between March to May 2020.¹² The states which recorded the highest number of returning migrants to their native rural communities were Uttar Pradesh, Bihar and West Bengal.¹³

In 2021, as the vaccination programme was beginning to roll out, lack of easily accessible and accurate information on the vaccine significantly contributed to COVID-19 vaccine hesitancy amongst migrant workers. Apart from misinformation leading to misperception, fear of wage cuts, language barriers and the digital divide as

well as religious and cultural notions against the vaccine affected motivation and ability to get immunized for many migrant workers¹⁴.

The unanticipated reverse migration to migrant workers' rural households revealed gaps in the provision of health, economic and social security programmes, while also highlighting their scant presence in existing statistics. The portability of ration cards and provisions of accommodation for transiting migrant workers facilitated by the central and state governments were important steps towards their protection during the lockdowns. Nevertheless, a range of individual, social and physical barriers have and continue to affect the reach and agency of migrant workers to life-saving resources.

International Migrants

The international Indian workforce also faced similar perils during the initial few months of the pandemic. With drastic and immediate measures such as the suspension of international travel, closure of borders, revised visa, and entry requirements, as well as mandatory internal restrictions imposed to reduce COVID-19 transmission, a cascade of negative impacts followed, endangering the lives of millions of emigrants¹⁵. Prior to the pandemic, India's diverse labour profile enjoyed a healthy migration outflow across the globe, contributing to the largest diaspora population in the world with an estimated 18 million Indians living outside their homeland in 2020¹⁶. India is a significant source of low and semi-skilled workers, as well as white-collared professionals, particularly in healthcare and information

⁸ IOM defines internal migration as the movement of people away from their place of habitual residence but within the boundaries of their own country, who establish new temporary or permanent residence in a new place.

⁹ Rajan, S. I., & Bhagat, R. B. (2021). Internal migration in India: integrating migration with development and urbanization policies. Policy Brief, 12, 59.

¹⁰ Agrawal, T., & Chandrasekhar, S. (2015). Short term migrants in India: Characteristics, wages and work transition.

¹¹ Rajan, S. I., & Bhagat, R. B. (2021). Internal migration in India: integrating migration with development and urbanization policies. Policy Brief, 12, 59.

¹² "Amid lockdown, digital divide left migrants' kids out in the cold,(2022)"|Hindustan Times, Retrieved from: https://vk.com/doc623586997_629077330?hash=cf09427d588af0afe7&dl=20ba41a673553b07fe

¹³ Ibid

¹⁴ "Vaccine hesitancy in migrant communities: a rapid review of latest evidence,(2021)"|ScienceDirect, Retrieved from: <https://www.sciencedirect.com/science/article/pii/S0952791521000674>

¹⁵ https://www.iom.int/sites/g/files/tmzbdl486/files/default/pp_cross-border_human_mobility_amid_and_after_covid-19_policy.pdf

¹⁶ International Migration 2020 Highlights. https://www.un.org/development/desa/pd/sites/www.un.org.development.desa.pd/files/undesa_pd_2020_international_migration_highlights.pdf

technology sector¹⁷. The United Arab Emirates, United States and Saudi Arabia are the top three receivers of emigrants from India.

The Government of India's Vande Bharat mission repatriated over 7 million Indians from over 100 countries amidst the pandemic. State governments have since stepped up proactively to provide distress relief and robust reintegration measures to harmonize their resettlement¹⁸. Remittances accrued from Indians living abroad stood at USD 87 billion in 2021, constituting roughly 4.6% of the country's GDP¹⁹. The Indian emigrant population is thus both extremely crucial to the Indian economy as well as massive contributors to the host nation's infrastructure. Many continue to provide essential services on the frontlines of the COVID-19 crisis in their destination countries.

Emigrants in general have limited access to social security systems and support networks in host countries, which left them in debilitating situations when the number of COVID-19 cases increased. The lack of host-country language proficiency also hampered their access to vital and accurate information on COVID 19. Many host nations began prioritizing specific mobile groups due to their potential heightened vulnerabilities, such as low-income migrant workers for COVID-19 vaccination. With nations, including India, mandating vaccine administration prior to entering the country, most returning migrant workers eventually saw it upon themselves to get immunized, paying out of pocket. Towards the end of 2020, it became evident that excluding migrants and mobile populations from COVID-19 response and recovery only undermined public health efforts and threatened the wellbeing, stability, and security of societies globally.

Objective and Scope

This study "COVID-19 Vaccination & Migrants – Leaving No One Behind" explores the key drivers that influence vaccine accessibility, hesitancy and acceptance among

No one is safe until everyone is safe. This means that now more than ever, migrant-inclusive approaches are absolutely paramount – particularly with the COVID-19 vaccination programmes – in order to ensure that no one is left behind in this fight against COVID-19.

migrant workers in India. Accessibility being a crucial determinant for vaccine uptake is also explored, with a closer look at the gender gaps that further perpetuate complex barriers when deciding to get inoculated against COVID-19. The implementation of the nationwide COVID-19 vaccination initiative has demonstrated the need for enhanced understanding of such behavioural and factorial nuances. Comprehensive and inclusive vaccination and protection measures can hence be formulated starting with a tailored migrant-specific and migrant-sensitive outreach strategy to reach the most marginalized segments of the Indian population.

No one is safe until everyone is safe. This means that now more than ever, migrant-inclusive approaches are absolutely paramount – particularly with the COVID-19 vaccination programmes – in order to ensure that no one is left behind in this fight against COVID-19.

¹⁷ STEM: Science, Technology, Engineering and Mathematics.

¹⁸ <https://www.livemint.com/>

¹⁹ <https://www.worldbank.org/en/news/press-release/2021/11/17/remittance-flows-register-robust-7-3-percent-growth-in-2021>



HILFIGER

Methodology

The sampling method consisted of a sample frame of localities where high densities of migrant workers within the city were first mapped using local knowledge from network partners and enumerators.

SAMPLING, SAMPLE SIZE, SAMPLE PROCEDURE

Quantitative data was collected from migrant workers predominantly working in the informal sector. Since most migrant workers in India are drawn to urban centres for better economic prospects, this study focused on India's urban centres. Million-plus cities (i.e., those having more than a million population as per Census 2011) that attract thousands of migrants from across the country were therefore targeted. A purposive selection of the cities was done, which included Bengaluru, Delhi, Hyderabad, Kanpur, Kochi, Kolkata, Ludhiana, Pune, Surat, and Tiruppur. Note that there is representation from each of the geographical zones in the sample cities covered (Table 1). Tiruppur district (Tamil Nadu) – despite not falling under the million plus category – was selected since it is a booming textile town which houses approximately 450,000 migrant workers predominantly hailing from the northern and eastern states of India, according to the 2011 Census.

The study followed an in-person survey method for migrants whose destination and origin are within India (referred to as “internal migrants”, in this study) and a telephonic survey method for returnees from GCC countries (referred to as “international migrants”).

Sample Size

A total sample of 2,100 was planned for (300 internal migrant workers from Kolkata and 200 internal migrant workers each from the other nine cities). However, to account for no-response, in each town about 5-10 additional respondents were surveyed. After data cleaning, the realised sample size was 2189 (Table 1). Data from a sample of 303 international migrant workers

were also collected over the phone. Anticipating a high dropout rate, around 650 international migrant workers were identified and contacted through a network of recruitment agencies.

Sampling procedures

The sampling method consisted of a sample frame of localities where high densities of migrant workers within the city were first mapped using local knowledge from network partners and enumerators. These localities form the clusters or first-stage units (FSUs), referred to as “area frame”. Within each FSU, migrant workers were surveyed through a combination of systematic random sampling (using a skip rule and a random start) and snowballing technique. The details of the sampling exercise are as follows:

Step-1: Sample Frame and Sampling of First Stage Units: Since detailed sample frames on migrant workers were unavailable for each city, a list of migrant-dense localities was created utilising local knowledge from network partners and enumerators, forming the first stage units (FSUs) for the survey.

Step-2: Selection of respondents within each cluster

Within each cluster, the snowballing method was used to identify the respondents within each locality through enumerators scoping the area for potential respondents. When similar types of migrant workers were encountered in an area, a skip rule was used following the first willing respondent to spread out the sample. In many cases, the survey enumerators combined subjective assessment with instructions from local sources; hence, strict adherence to a random sampling approach was not adhered to.

Enumerators were instructed to identify a potential respondent after ascertaining the following:

- The potential respondent is an adult (above 18 years of age)
- The potential respondent is a migrant (the Census definition of migrant by place of birth, i.e., a person’s current place of residence is different from her/his place of birth, was used)²⁰

Note: Although, an attempt was made to cover an equal number of male and female respondents in the sample, the prevailing gender composition encountered in the field dictated the actual ratio. It also relied on enumerators receiving permission to conduct the interviews from a potential respondent. Therefore, it was not possible to maintain gender balanced sample from each city. Overall, about 22% of the sampled respondents were female.²¹

Step-3: Survey of respondents

Once a potential respondent was identified, they were informed on the purpose of the survey and following consent, the survey commenced. A mobile based questionnaire using Kobo forms/COLLECT Application was used for data collection for both internal and international migrants.

The Application had a number of features which helped in ensuring that high quality data was collected, such as:

- Validation checks: Field properties for questions were assigned and only valid responses could be recorded.
- Skip rules: The App allowed for skipping of questions based on responses (relative rules), making canvassing the questionnaire efficient.
- Capture of start/end time and locational coordinates: The App recorded start/end time and this allowed checking of time taken for the survey and deviations to be identified. In addition, the App also recorded latitude/longitude information, which ensured that respondents could be plotted and tracked.
- From the sample frame, certain clusters (FSUs) were chosen based on local knowledge of enumerators. Three considerations were used to sample the clusters. The first consideration was the subjective assessment of the density of migrant workers in the area. Secondly, it was ensured that the type of occupations covered would be as diverse as possible. Third, it was seen to that the clusters sampled are as spread out within the city as possible to ensure ample representation.
- The sampled clusters for each city are given in Annex-2

The surveys were conducted over a period of 2 months (December 2021 to January 2022) amid the third COVID-19 wave.

Table 1: Sample cities and size

Sl. No.	Zone	City	Sample size
1	North	Delhi	206
2		Ludhiana	219
3		Kanpur	209
4	West	Pune	198
5		Surat	213
6	South	Hyderabad	211
7		Kochi	204
8		Tiruppur	211
9		Bengaluru	201
10	East	Kolkata	318
Total			2189

²⁰ Additionally, enumerators also ascertained that the respondents’ native place (village) is different from their current place of residence/the city they were surveyed in.

²¹ The detailed gender decomposition is given in the section on descriptive statistics.

Figure 4: Sample Distribution



Sampling procedure for international migrants

To survey international migrants via telephone, contact details of 600 migrants who travelled to GCC nations in the last one year were collected through India Migration Now’s (IMN) recruitment partners. Another 100 more

were collected from IMN’s repository of international migrants. Consent was taken from the respondents over the call and the enumerators were trained to proceed accordingly.

KEY RESEARCH QUESTION COVERED IN THE STUDY

In this subsection, the key research questions considered for the study are discussed (Table 2).

Table 2: Key Research Questions

SI. No.	Key Research Questions
1.	<p>Awareness about COVID-19, its symptoms and sources of information</p> <ul style="list-style-type: none"> • How many migrant workers surveyed were aware of COVID-19? • How many migrant worker surveyed could identify the COVID-19 symptoms correctly? • What are the key sources of information for COVID-19?
2.	<p>COVID-19 appropriate behaviour among migrants</p> <ul style="list-style-type: none"> • How many migrant workers practiced COVID-19 appropriate behaviour? • What are the key COVID-19 appropriate behaviour practiced among the respondents?
3.	<p>Awareness about vaccination programme</p> <ul style="list-style-type: none"> • What is the level of COVID-19 vaccination programme awareness among the respondents? • What are the key sources of information to access the COVID-19 vaccination programme?
4.	<p>Incidence of COVID-19 among migrants and close associates</p> <ul style="list-style-type: none"> • What is the incidence rate of COVID-19 among the surveyed respondents? • What is the incidence rate of COVID-19 among the family members of the surveyed respondents?
5.	<p>Vaccination coverage among migrants</p> <ul style="list-style-type: none"> • How many migrant workers surveyed received their first doses? • How many migrant workers surveyed received their second doses?
6.	<p>The willingness of vaccination among migrants</p> <ul style="list-style-type: none"> • How many migrant workers surveyed were willing to get the vaccination?
7.	<p>Accessibility of the registration and vaccination centre</p> <ul style="list-style-type: none"> • How many respondents registered for the vaccination? • How many respondents knew where to get the vaccination? • How accessible are the government and private vaccination centres, in terms of distance from home?
8.	<p>Resistance of vaccination and reasons for not getting vaccination</p> <ul style="list-style-type: none"> • What proportion of migrant workers believed the COVID-19 vaccine was effective? • What are the key reasons stated by the respondents for not getting the vaccination?

CERTAIN METHODOLOGICAL LIMITATIONS

A few methodological limitations of the study are listed in Table 3.

Table 3: Methodological limitations

Sl. No.	Methodological limitations
1.	<p>Study Design:</p> <ul style="list-style-type: none"> • This a rapid study to generate a preliminary understanding of vaccine accessibility, acceptance and hesitancy among migrant workers. Therefore, the findings of the study are not to be taken as statistically representative of the population estimates. • The study only looks at demand-side factors, namely, from the point of view of migrant workers. It does not look at the supply side.
2.	<p>Sample Frame:</p> <p>There is no comprehensive sample frame of the population of migrant workers available. This results in three key limitations of the study:</p> <ul style="list-style-type: none"> • Representativeness: In the absence of a sample frame and population estimates, it is challenging to implement a representative sample survey design. The sampling design used in this study demonstrate limitations on the distribution of the key characteristics. • Drawing a random sample: It is not possible to implement random sampling without a comprehensive sample frame. The study tries to overcome this limitation by creating partial area frames using local knowledge and using systematic random sampling of respondents wherever possible. Still, in most cases, it was a combination of snowballing and subjective sampling. • Drawing a gender-balanced sample: It was challenging to ensure a gender-balanced sample without a sample frame. Enumerators sampled respondents based on the gender composition of the field and consent of the respondents to be surveyed.

ETHICAL CONSIDERATIONS

Ethical considerations were maintained throughout the study. The rights, dignity, health, safety and privacy of all the respondents surveyed were protected. Informed consent was verbally taken at the beginning of each interview, with respondents being briefed on the aim and objective of the study as well as the issues and questions to be covered. Before the survey, permission to conduct the survey was obtained from the respondent.

Further, respondents were informed of their freedom to refuse to answer any questions or could withdraw at any time during the interview. COVID-19 appropriate protocols such as maintaining physical distancing and wearing masks at all times were strictly followed by the field investigators.



Internal Migrants

Employment is the most important reason for migration, particularly among men migrant workers in India, however, this reason is being increasingly cited by women who relocate as well

DEMOGRAPHIC CHARACTERISTICS

This section details the demographic characteristics of the surveyed migrant workers, such as age, sex-ratio, educational qualification, marital status, location, employment and work status, and access to mobile phone and mobile internet services. The descriptive analysis is given in Table 4. It is observed that over three-fourths of the internal migrants interviewed are males (78.1%), and a majority of them (64.5%) fall between the ages of 25 to 44 years. Seventeen per cent were found to be young men below the age of 25 years, with the rest of this cohort were over the age of 45 (18.2%). Among the 21.8 % of women migrants surveyed, over two-thirds of them fall between the ages of 25 to 44 years. However, comparatively fewer younger women (14.3% below the age of 25 years) and middle-aged women (16.1% over the age of 45 years) were captured in this study.

Most men and women migrant workers (72.1% and 77.2%, respectively) were married at the time of the survey. Over 8% of the surveyed women reported being separated or divorced. Furthermore, only 5.3% of the total sample surveyed were college graduates. Among the respondents, 7.3% of women carry a college degree compared to their male counterparts (4.6%). About half of the women migrant workers had little (19.0%) to no education (32.4%). A quarter of the men surveyed (27.1%) attended primary school only, and 22.5% remained uneducated. Overall, most women and men respondents had at least a secondary school education.

Employment is the most important reason for migration, particularly among men migrant workers in India, however, this reason is being increasingly cited by women who relocate as well²². It is seen that more women work in the garment industry (43.7%), while most men work as casual wage labourers (36.4%). However, apart from this, it may be interesting to note that 17.3% of the men are on a regular payroll under a contract of hire, compared to the 7.7% of their regular salaried female counterparts. Furthermore, close to a third of the men have set up their businesses and considered themselves to be self-employed. At the same time, only 6.4% of the female respondents represented this employment category. Household work, which implies the work performed by domestic helpers, homemakers and those working in the household enterprise sector, including farm and non-farm activities, tailoring, weaving etc., that may or may not be paid, is observed to be occupied more by women (16.9%) than men (3.3%), according to this study.

The lockdowns and mobility restrictions imposed to curb COVID-19 transmission, drove people towards the digital arena. This shift rapidly coursed through all social and economic aspects of human life, including booking slots for the COVID-19 vaccination²³. Hence, since the online registration process is one of the two available ways of ensuring access to the COVID-19 vaccines, the study investigates the distribution of mobile phone owners and mobile internet users. Overall, close to 14% had no access to a mobile phone. Amongst the

²² Bhagat, R. B., & Keshri, K. (2020). Internal migration in India. In *Internal migration in the countries of asia* (pp. 207-228). Springer, Cham.

²³ Nikore, M., & Uppadhyay, I. (2021). India's gendered digital divide: How the absence of digital access is leaving women behind. Observer Research Foundation. Retrieved September, 15, 2021.

female respondents, a quarter of them did not own a mobile phone (26.1%), while only 10.5% of the male migrant workers surveyed lacked access to the device. While amongst those who owned a phone, smart

phones seemed to be the popular choice compared to its predecessor, with 95% of both men and women having access to internet connectivity.

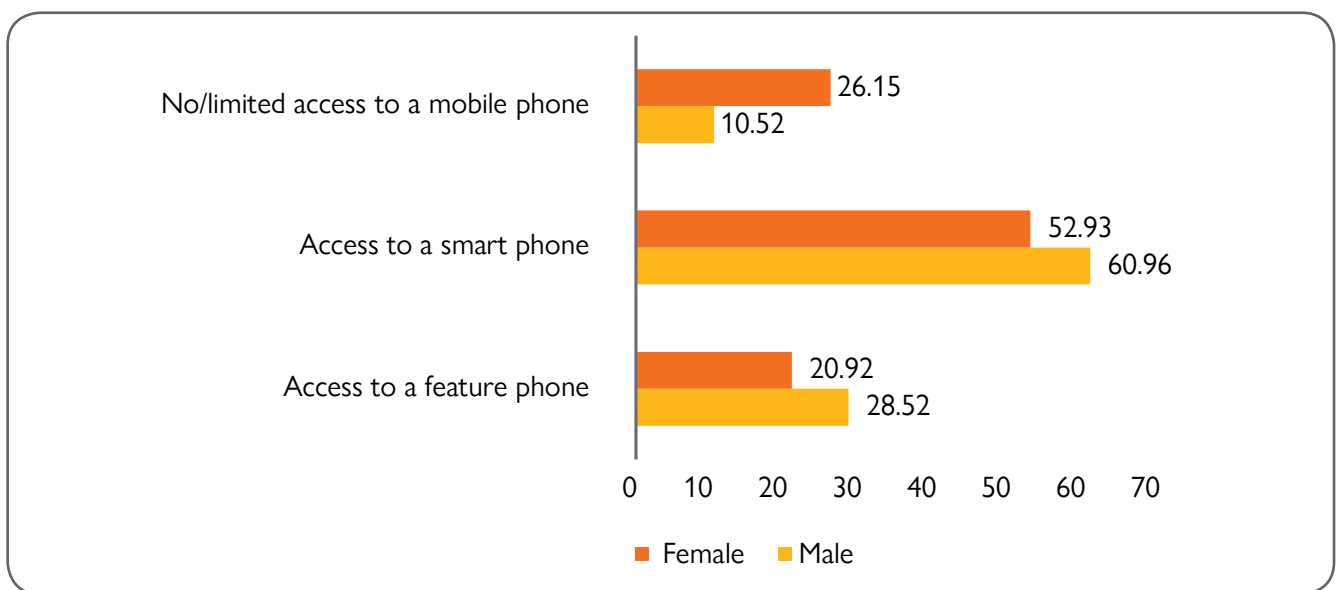
Table 4: Percentage of migrants according to socio-economic and demographic characteristics

Descriptive characteristics	Female (%)	Women (%)	Total (%)
Age			
< 25	17.3	14.3	16.7
25 – 34	36.8	35.8	36.6
35 – 44	27.7	33.8	29.0
45 – 59	17.0	15.0	16.6
60+	1.2	1.1	1.2
Total	100.0	100.0	100.0
Marital Status			
Married	72.12	77.2	73.23
Separated / Divorced	0.82	8.37	2.47
Single	27.06	14.44	24.3
Total	100.0	100.0	100.0
Educational Level			
No education	22.5	32.43	24.67
Primary	27.12	19.04	25.35
Secondary	36.24	35.77	36.14
Higher secondary	9.47	5.23	8.54
College Graduate	4.68	7.53	5.3
Total	100.0	100.0	100.0
Employment & Work Status			
Regular salaried worker	17.36	7.74	15.26
Working in the Garment Industry	11.51	43.72	18.55
Casual wage labour	36.47	22.59	33.44
Self-employed	29.63	6.49	24.58
Household work	3.33	16.95	6.3
Students	0.53	0.63	0.55
Others	0.12	0.63	0.23

Descriptive characteristics	Female (%)	Women (%)	Total (%)
Unemployed/seeking for work	0.76	1.05	0.82
No response	0.29	0.21	0.27
Total	100.0	100.0	100.0

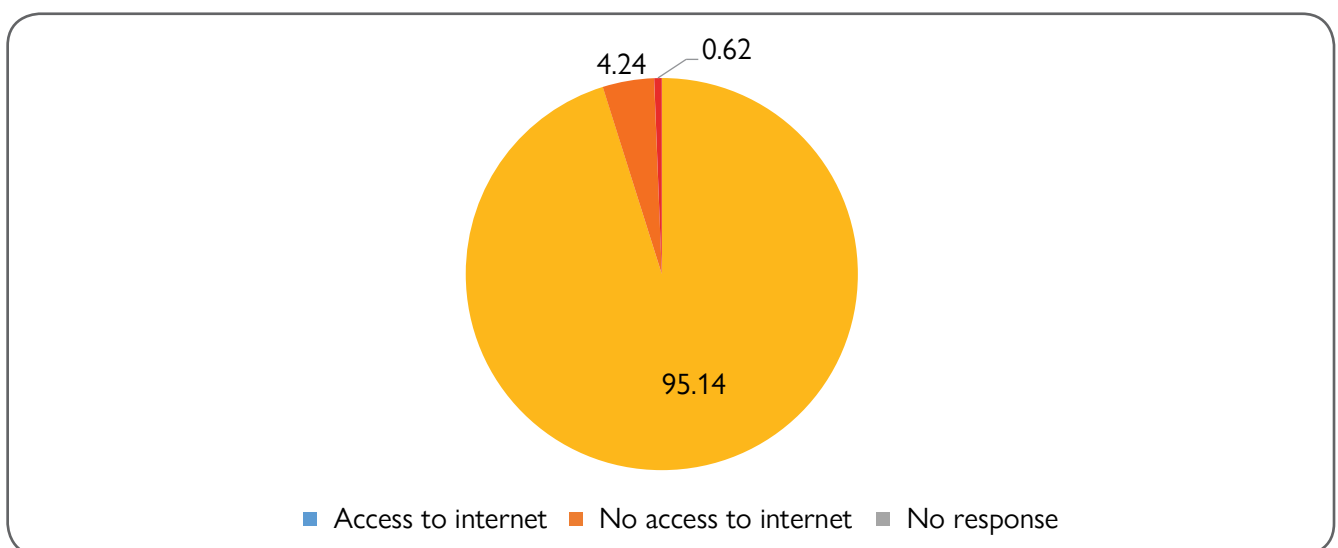
Note: N- 2189 (m: 1711, f: 478)

Figure 5: Access & Type of Mobile Phone



Note: N- 2189 (m: 1711, f: 478)

Figure 6: Internet Use Among Smart Phone Owners



Note: N- 2189 (m: 1711, f: 478)

Geographical Distribution

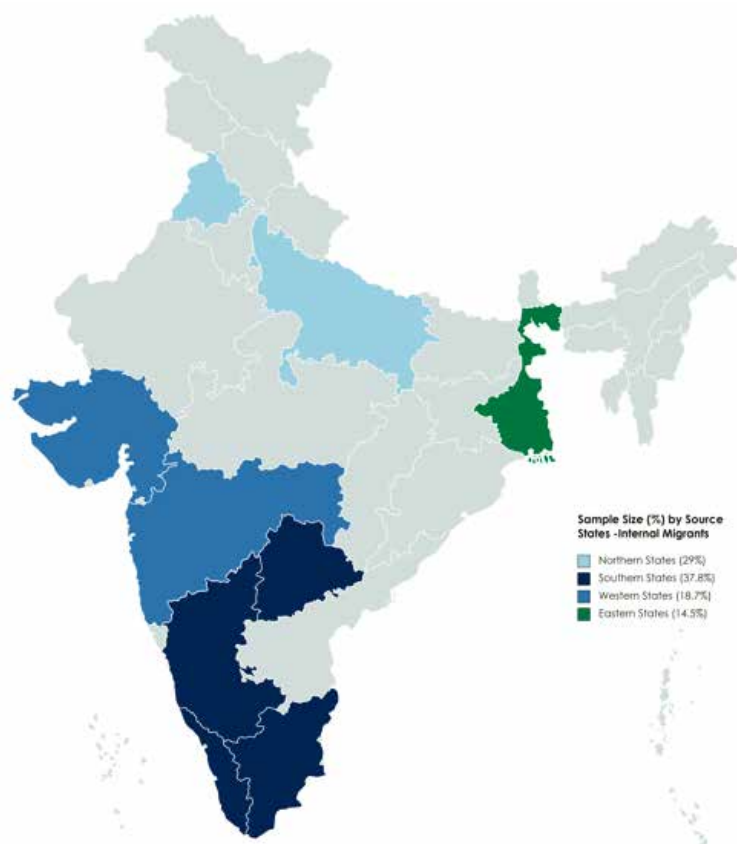
To understand the distribution of migrants by location, two tables have been provided below: one by place of interview and the other, a cross tabulation of origin and destination states. In Figure 5, the distribution of migrants by the place of interview (i.e., place of current residence) is given. This map provides a geographical distribution of the sample. Thirty-eight percent of the respondents were residing in southern states, namely Karnataka, Kerala, Tamil Nadu and Telangana, while 29% resided in the northern states of Delhi, Punjab and Uttar Pradesh. About 19% and 14% were residing in the western and eastern regions, respectively. Table 5 summarises the distribution of migrants by origin and destination states. The distribution²⁴ can be summarised as the follows:

- The state of **Uttar Pradesh** (UP) accounts for the largest number of migrant workers (23% of the overall sample). However, if only inter-state

migration is considered (i.e., discounting intra-state migrants for whom the origin and destination is within UP), this number comes down to 14%.

- The state of **Bihar** is a close second (21%). If intra-state migration is discounted, then Bihar accounts for the largest proportion of migrant workers in the sample.
- **West Bengal** (12.6%) is the next largest contributor (as origin state) with most of the migrant workers being intra-state migrants (7.4%).
- Migrants from **Odisha** came in fourth in terms of the origin state of migrants (7.7%). Most of the migrant workers from Odisha chose Southern or Western states as their destination states.
- Similar to West Bengal, migrant workers from **Karnataka** and **Maharashtra** are predominantly intra-state.

Figure 7: Sample distribution of Internal Migrants by source states (%) (N- 2189)



²⁴ To maintain consistency, the destination states are categorized geographically and whether the migration was intra-state or inter-state.

Table 5: Interstate and intra-state migrants

State of origin	Inter-state Migrants						Intra-state Migrants	
	Eastern (West Bengal)	Northern (UP, Bihar, Delhi)	Southern (TN, AP, Kerala, Karnataka)	Western (Gujarat, Maharashtra)	Total	Place of origin (%)	Total	Place of origin (%)
Andhra Pradesh (AP)	0	0	84	0	84	3.9		
Arunachal Pradesh	0	0	5	0	5	0.2		
Assam	0	0	31	0	31	1.4		
Bihar	106	219	90	45	460	21.4		
Chhattisgarh	0	8	1	9	18	0.8		
Delhi	1	0	4	0	5	0.2	1	0.0
Gujarat	0	1	6	0	7	0.3	45	2.1
Haryana	0	1	2	0	3	0.1		
Jharkhand	5	5	34	2	46	2.1		
Karnataka	0	0	11	7	18	0.8	143	6.6
Kerala	0	1	3	0	4	0.2	1	0.0
Madhya Pradesh (MP)	0	31	2	29	62	2.9		
Maharashtra	0	1	11	18	30	1.4	91	4.2
Mizoram	0	0	2	0	2	0.1		
Nepal	0	0	6	0	6	0.3		
Odisha	4	1	111	48	164	7.6		
Punjab	2	0	2	1	5	0.2	2	0.1
Rajasthan	1	4	9	9	23	1.1		
Tamil Nadu								
(TN)	1	0	43	0	44	2.0	25	1.2
Telangana	0	0	0	41	41	1.9	5	0.2
Tripura	0	2	0	0	2	0.1		
Uttar Pradesh								
(UP)	38	161	88	43	330	15.3	172	8.0
Uttarakhand	0	5	1	1	7	0.3		
West Bengal	0	4	103	2	109	5.1	160	7.4
Total	158	444	649	255	1,506	70.0	645	30.0

KEY RESULTS

COVID-19 Awareness and Knowledge

This study aimed at determining COVID-19 related awareness, knowledge and preparedness among migrant workers. Overall, an overwhelming majority of the migrant workers (97.9%) surveyed were aware of the ongoing COVID-19 pandemic. The respondents were asked in their preferred language the following four questions, to determine the level of awareness on COVID-19:

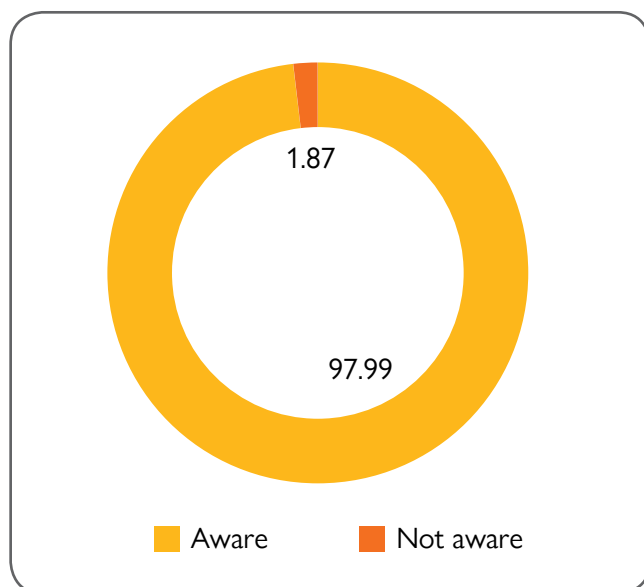
1. Have you heard of a disease called COVID-19?
2. If yes, do you know the symptoms of the COVID-19 infection?
3. Do you know how COVID-19 infection is spread?
4. How do you protect yourself and others against COVID-19?

About 98% reported that they were aware when asked if they knew the symptoms of COVID-19, however, when probed further 15.3% did not know the presenting symptoms of the disease. The most recognized symptoms include fever (91.5%) and cough (83.1%), followed by breathing difficulties, which

was identified predominantly by women (57.9%). It should also be noted that a significant proportion of respondents (18.2%) did not know the symptoms of COVID-19 when asked to specify. About 45% of female and male respondents felt they are vulnerable to the spread of the infection.

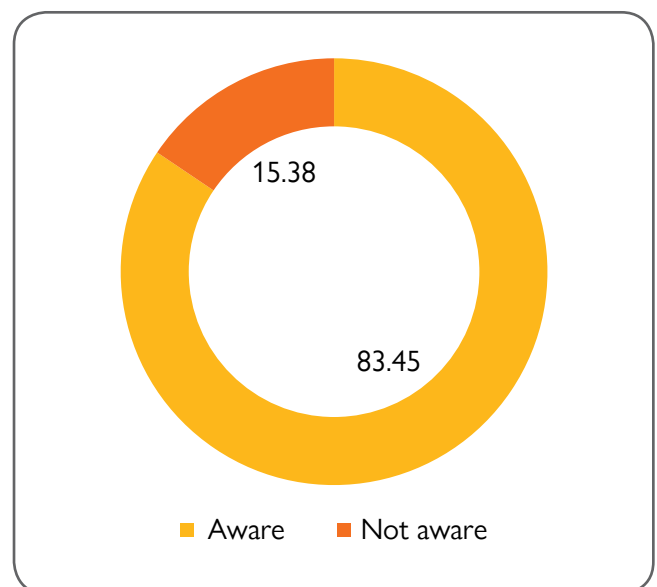
It is observed that respondents relied on multiple information sources that eventually shaped their knowledge on COVID-19. Of the respondents, more than half of them (52.3%) got their COVID-19 related information from local television news channels and public health messages from television commercials. Nearly half of the women migrant workers surveyed (48.7%) reported to have relied on family and friends for important information compared to 43.7% of males. Forty-five per cent of male respondents resorted to messages received on their mobile phones for information on the pandemic. In later sections, the circulation of forwarded messages is explored further. Apart from traditional media outlets (television, newspaper and radio) and peers, social media and internet-based sources (such as search engines and news websites) were also popular choices for accessing information (21.3%). Again, it is important to note that about 17% of the respondents did not know where and how to access COVID-19 related information.

Figure 8: Awareness on COVID-19 Disease



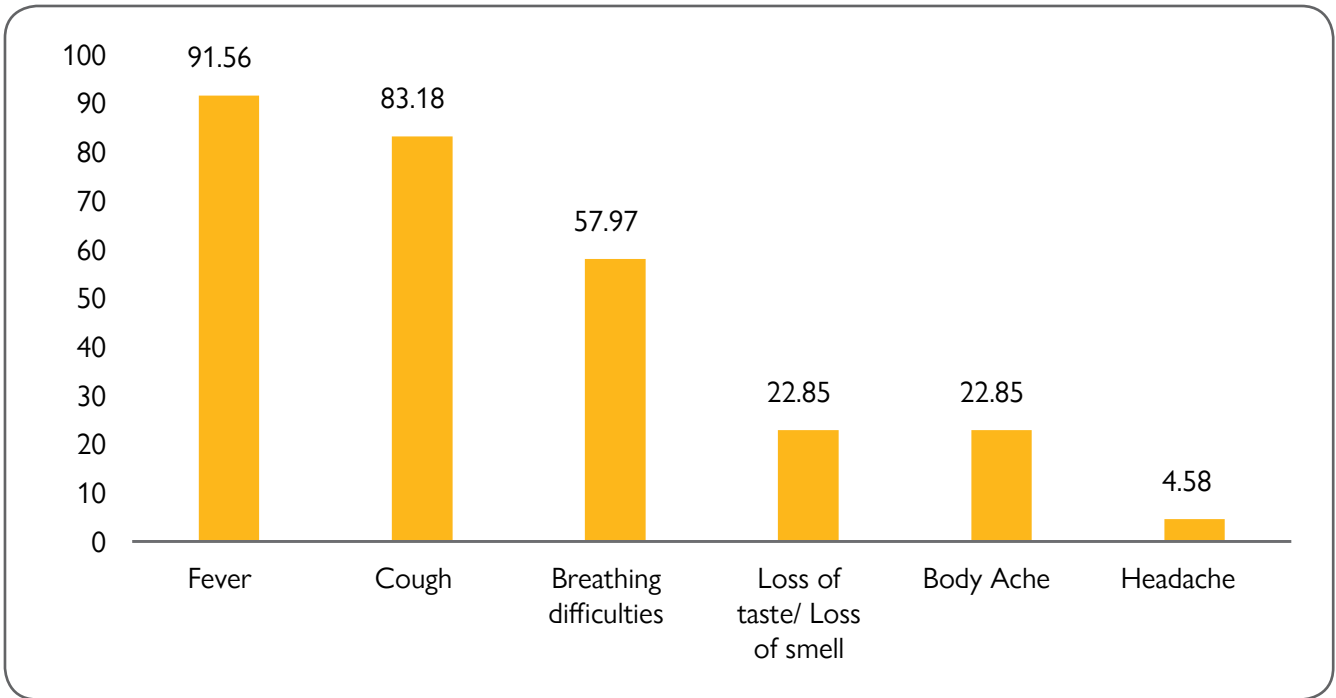
Note: N- 2,189 (f: 478, m: 1,711)

Figure 9: Awareness on COVID-19 Symptoms



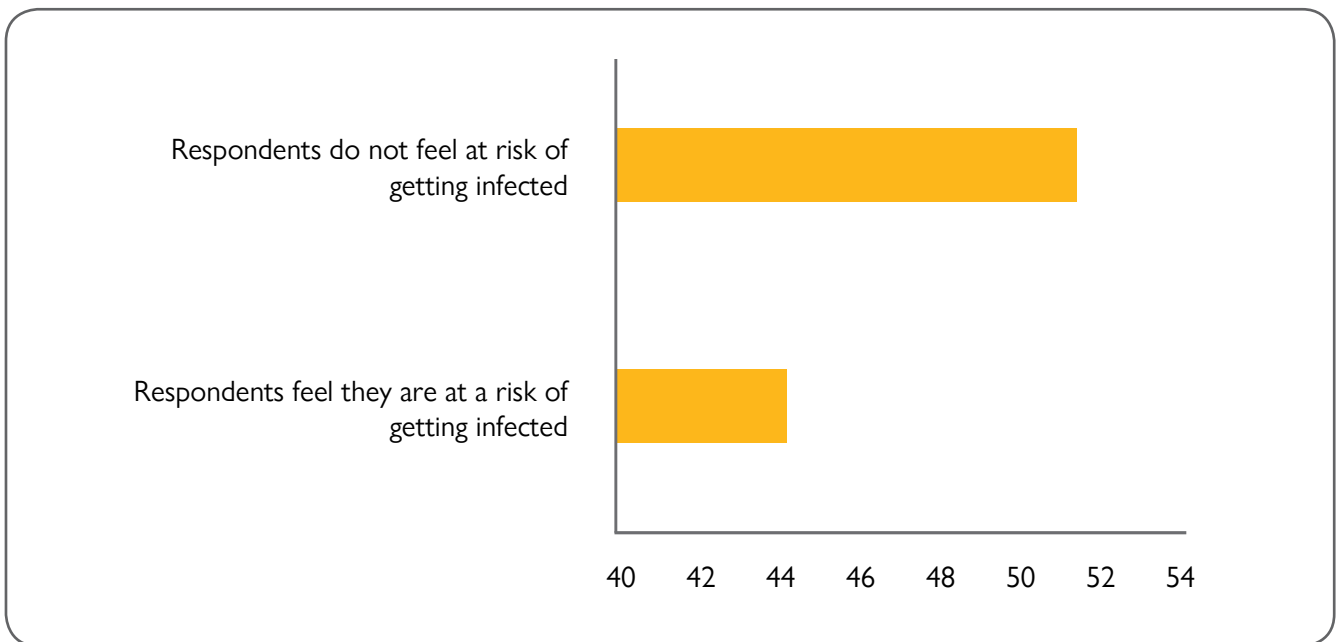
Note: N- 2,145 (f: 471, m: 1,674)

Figure 10: Symptoms of COVID-19 Disease



Note: N- 1790 (f: 414, m: 1,790), *Multiple responses (only 'yes' tabulated here)

Figure 11: Self-perceived threat of getting infected by COVID-19



Note: N- 2,189 (f: 478, m: 1,711), **Missing- 92 (4.2%)

Table 6: Sources of Information

Question	Female (%)	Male (%)	Persons (total %)
Sources of Information*			
From the television	67.4	48.1	52.3
Through the mobile phone	39.5	45.0	43.8
Radio	4.8	9.4	8.4
Newspaper	16.7	17.4	17.3
Social media/internet	17.2	22.4	21.3
Hospitals/Health centres	14.9	7.8	9.3
ASHA/Anganwadi/ANM workers	27.2	11.0	14.5
Family/friends	48.7	43.7	44.8
Do not know where to get information from	16.7	17.4	17.3
<i>Note: N- 2,189 (f: 478, m: 1,711), *Multiple responses (only 'yes' tabulated here)</i>			

Covid-19 Appropriate Behaviour

This study sought to understand respondents' engagement with protective health behaviours against the transmission. During the time of the survey, most of the respondents (83.8%) wore masks or face shields to protect themselves and those around them against the virus. However, when probed further on the frequency of its usage, it can be noted that women wore them more often compared to their male counterparts (40.2%), with 61.7% of women reporting to having worn them always. Close to half of the men (47.8%) reported to wearing a mask only sometimes, as compared to 32.8% of their female counterparts. It is very important to note that 8% and 3% of the male respondents further reported to have rarely or never worn one, respectively.

Forty-three percent of women regularly washed or sanitized their hands, as compared to 27.5% of their male counterparts. Despite stay-at-home mandates imposed to curb transmissions, it is observed that overall, only 20.5% of the cohort stayed indoors. A majority of women (61.9%) also maintained a minimum distance of 6 feet between each other as mandated, while only 48.1% of men complied with this public health measure. And finally, about 6.4% reported to not engaging in any COVID-19 appropriate behaviour against the virus at all.

Half of the female respondents received support from employers at their workplace in terms of access to resources required to protect themselves against the virus. Close to 56% had good access to face masks or face shield, 41.4% to hand soap and water, and 42.0% to hand sanitisers. While on the other hand, close to 26.9%, 40.3% and 19.9% of men were given face masks or face shields, hand soap and water and hand sanitisers from their employers at the workplace, respectively. This stark difference in the access to personal protective equipment may be attributed to the fact that about 66% of men worked as casual wage labourers or were self-employed. Only about 17% were on a regular pay roll and 11% worked in the garment sector, compared to about 44% of women who worked in the garment sector. Overall, close to 20% of male and female respondents stated not receiving any support from their employers to access personal protective equipment.

Furthermore, 80.3% of the respondents still found themselves spending money out of their own pocket on face masks and hand sanitiser for themselves and their families, which was one of the main barriers preventing them from regularly practising COVID-19 appropriate behaviours. About 10% reported receiving limited communication on the different protective measures

imposed, particularly at their place of work. Due to the crowded nature of their work, 10.8% also stated not having the liberty to maintain adequate distance between their peers. About 13% of women reported

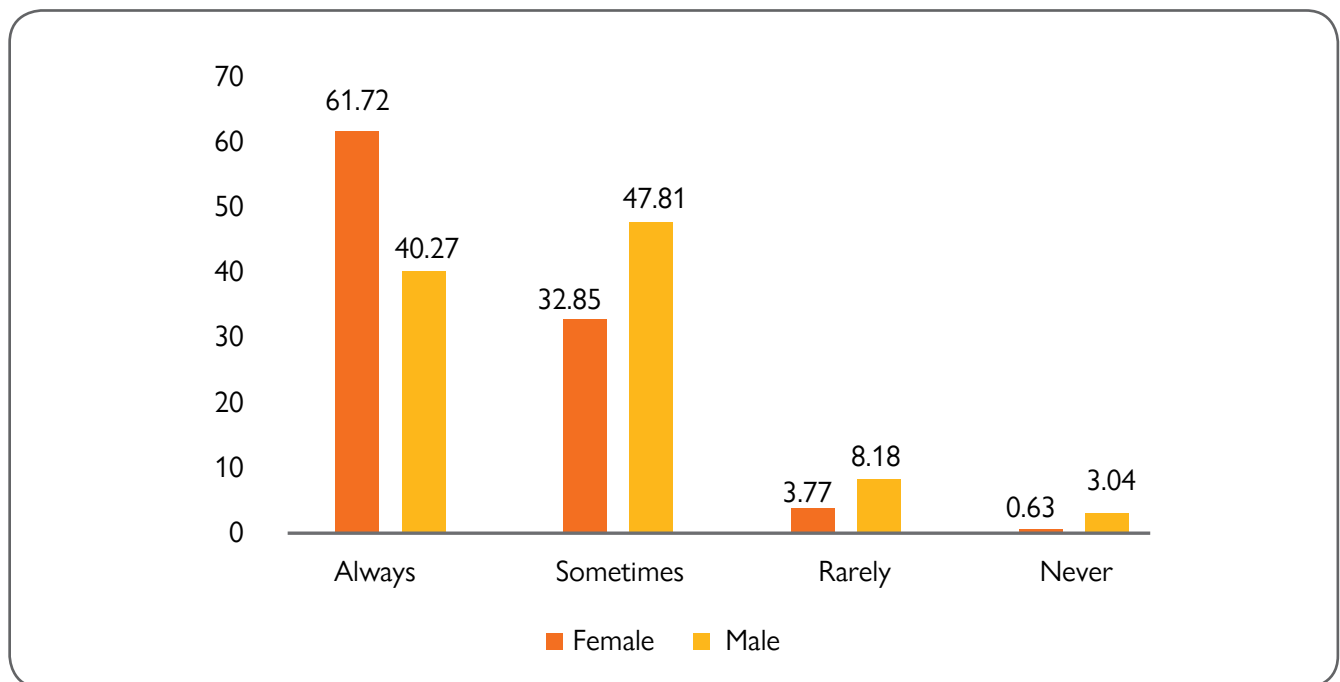
the discomfort felt when continuously using a face mask while working, which stopped them from wearing one at all times.

Table 7: COVID-19 Protective Measures

Question	Female (%)	Male (%)	Persons (total %)
Protective Measures*			
Wear face mask/face shield	90.17	82.12	83.87
Wash hands/sanitize regularly	43.1	27.53	30.93
Maintain social distance	61.92	48.16	51.16
Staying indoors	36.4	16.07	20.51
Do not practice any measures	4.39	7.07	6.49
Others	1.88	3.39	3.06

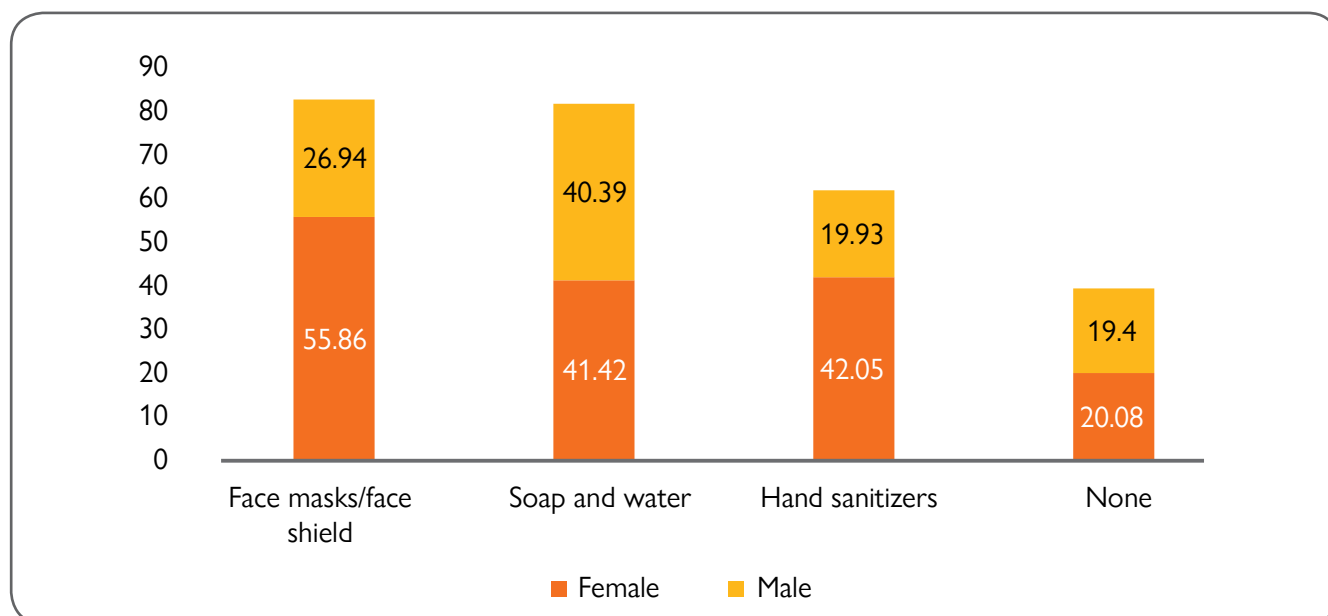
*Note: N- 2,189 (f: 478, m: 1,711), *Multiple responses (only 'yes' tabulated here)*

Figure 12: Frequency of Wearing Face Masks



*Note: N- 2,189 (f: 478, m: 1,711), **Missing- 17 (0.78%)*

Figure 13: Protective Equipment Provided by Employers



Note: N- 2,189 (f: 478, m: 1,711), *Multiple responses (only 'yes' tabulated here)

Table 8: Out-of-pocket expenditure on Protective equipment

Question	Female (%)	Male (%)	Persons (total %)
Spend out-of-pocket	76.78	81.36	80.36
Did not spend out-of-pocket	23.01	17.77	18.91
Total**	100	100	100

Note: N- 2,189 (f: 478, m: 1,711), **Missing- 16 (0.73%)

Table 9: Barriers that prevent the practice of COVID-19 Appropriate Behaviour

Question	Female (%)	Male (%)	Persons (total %)
Lack of awareness at the workplace	12.76	8.71	9.59
Lack of access at the workplace	14.64	3.8	6.17
Inability to maintain social distance at the workplace	12.55	10.34	10.83
Discomfort in continue use of protective equipment	13.18	3.57	5.66

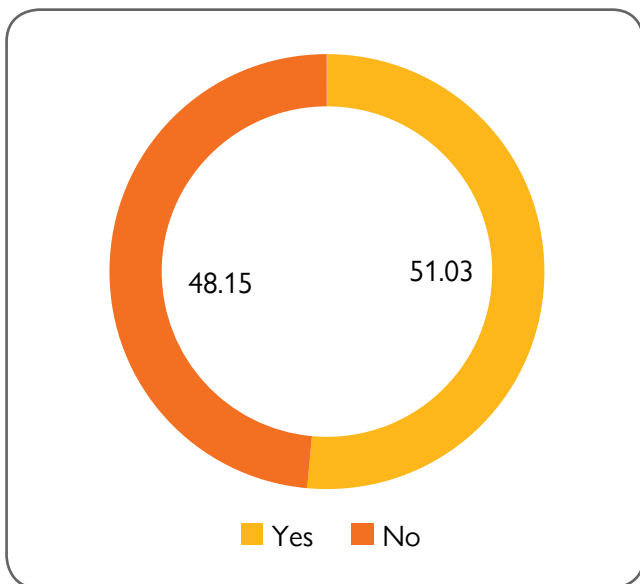
Note: N- 2,189 (f: 478, m: 1,711), Multiple responses (only 'yes' tabulated here)

COVID-19 Diagnosis

Half the surveyed respondents had taken either the Rapid Antigen test or the RT-PCR to assess themselves for COVID-19. Half of them (52.9%) had only taken it once, while 32.6% took the tests twice, 12.2% took the tests between three to five times and close to 2% took the tests more than five times. The reasons for getting a COVID-19 testing done varied between the respondents. About 23% of female respondents reported voluntarily getting tested upon showing

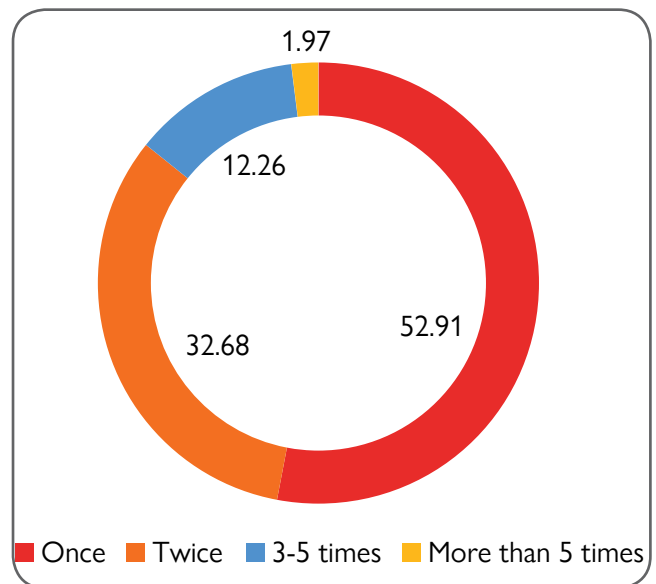
symptoms, compared to 12.7% of men. Close to a third of the women (32.5%) also said that testing was mandatory at their workplace, compared to 29.0% of men who were obliged to get tested at the workplace. Similarly, testing was also mandated at bus and railway stations, where 18.4% overall stood in line for a swab test before setting to travel. Twenty-seven per cent were also subjected to a COVID-19 test at district and state border checkpoints during intra-state and inter-state travel.

Figure 14: Taken a COVID-19 test (RAT and/or RT-PCR)



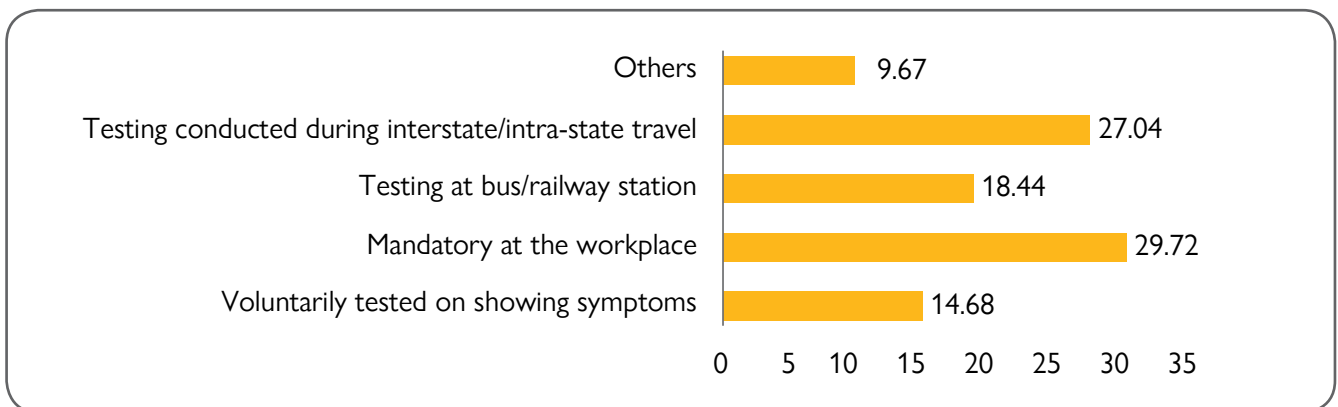
Note: N- 2,189 (f: 478, m: 1,711), **Missing- 18 (0.82%)

Figure 15: Number of times the test was taken



Note: N- 1,117 (f:209, m:908), **Missing- 2 (0.18%)

Figure 16: Reasons for getting tested



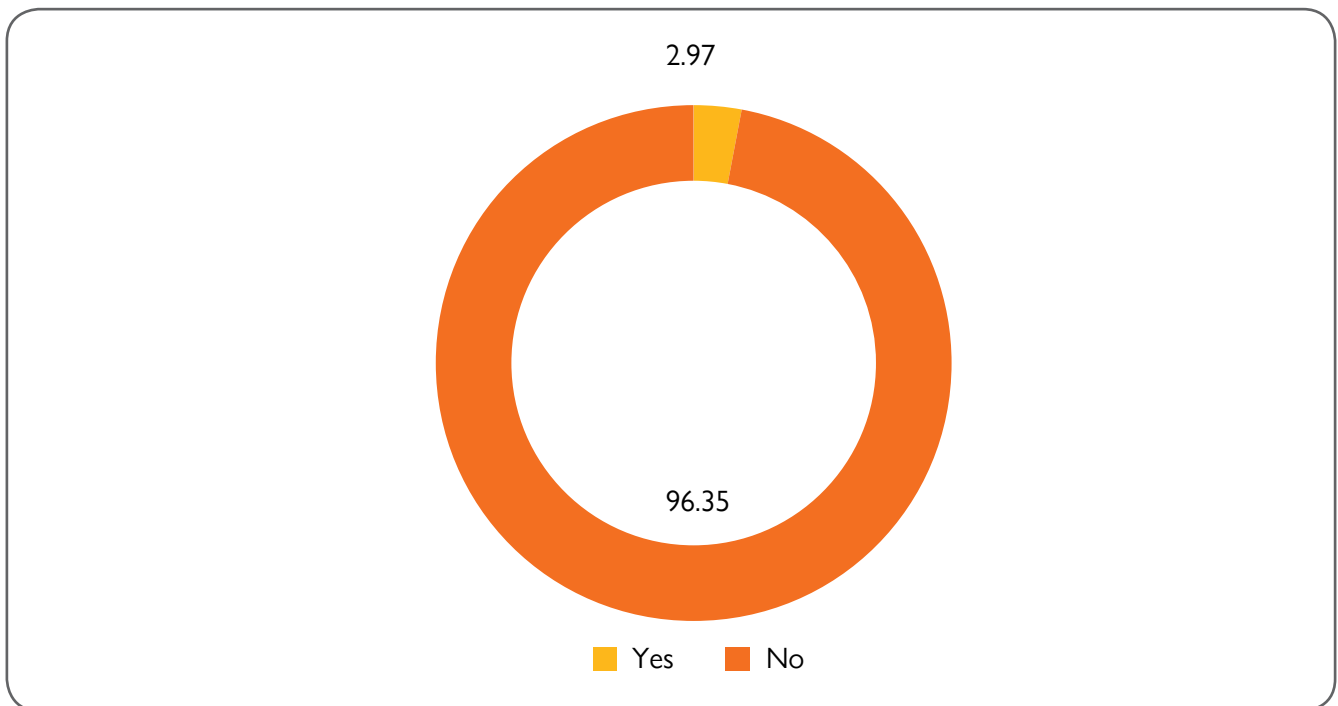
Note: N- 1,117 (f:209, m:908), **Missing- 5 (0.45%)

COVID-19 Incidence

An overwhelming majority of the respondents (96.3%) reported to having tested negative for COVID-19. Only about 3% stated to testing positive for the disease. Further, 12.1% reported knowing a close associate or

family member who tested positive for COVID-19, while 87.0% denied knowing anyone who tested positive for COVID-19. Of the 3% who reported to have tested positive, most of them returned to work after two to three weeks following their diagnosis.

Figure 17: Tested positive for COVID-19



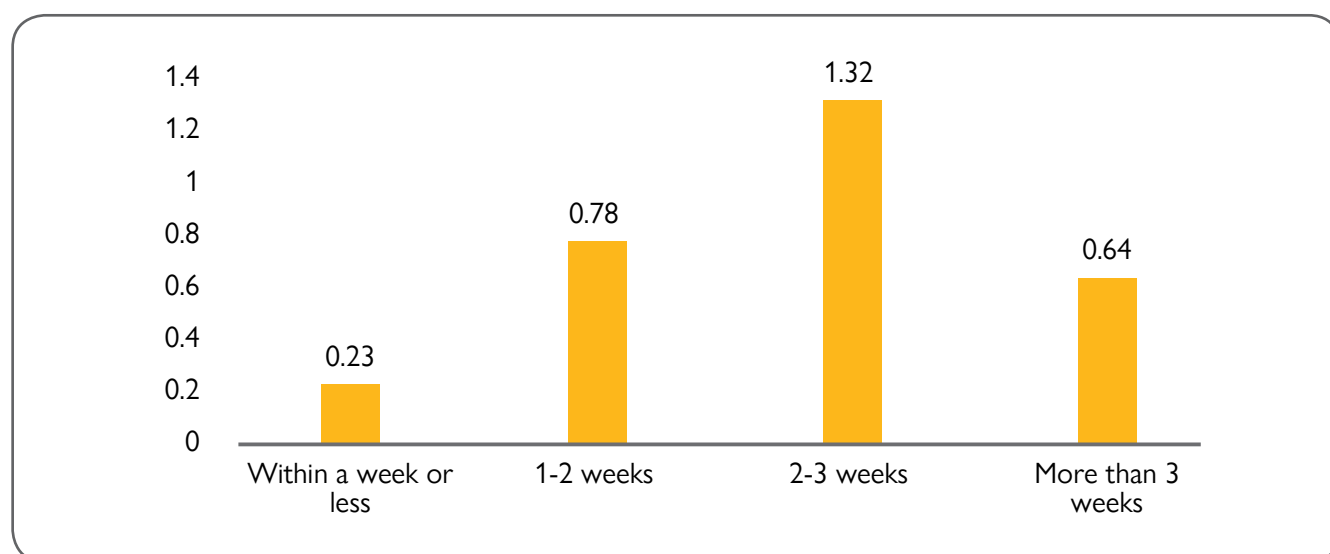
Note: N- 2,189 (f: 478, m: 1,711), **Missing- 15 (0.69%)

Table 10: Close associate/family member tested positive

Question	Female (%)	Male (%)	Total (%)
Yes	16.11	10.99	12.11
No	83.05	88.14	87.03
Total**	100	100	100

Note: N- 2,189 (f: 478, m: 1,711), **Missing- 19 (0.87%)

Figure 18: Back to work following diagnosis



Note: N- 65 (f: 15, m: 50)

Awareness on COVID-19 Vaccination

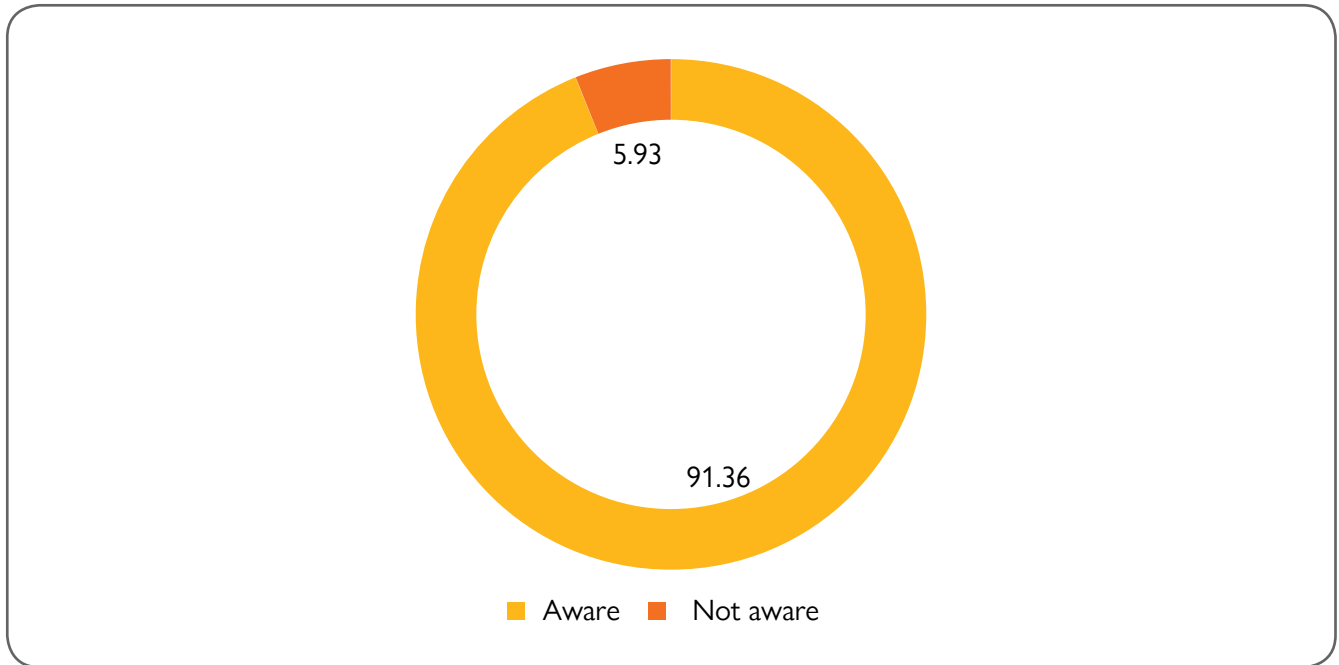
Of the respondents, 91.3% were aware of the COVID-19 vaccination programme. However, when probed further on the details of the programme, their awareness levels varied, which are discussed in later sections. Most of them got their information from the television (48.6%). Most women (40.1%) sought information from their family and friends. About 27% had access to newspapers and government-approved guidance on the vaccination programme. A good proportion of the respondents (23.8%) received information assistance from community health care workers such as ASHA and Anganwadi workers, particularly women (33.2%) which is important to note. Twenty-five per cent of them approached hospitals and health centres directly for queries regarding the immunization programme, while 20.7% resorted to informal channels such as social media and web-based searches for all their COVID-19 vaccination-related information.

Close to 61% of the respondents registered to get vaccinated. However, there is a large difference in the number between the male and female respondents,

with 64.5% of the former having the ability to get registered compared to 48.3% of the latter on the same. Nearly 51% of women reported not being registered at the time of the survey. Despite this, an overwhelming majority (90.8%) had received their first dose of the COVID-19 vaccine as of February 2022. Out of the 90.8%, 66.0% received their second dose as well, as of February 2022. Comparatively, 77.1% of the female respondents completed their COVID-19 vaccination dose, whereas close to 63% of their male counterparts were fully vaccinated at the time of the survey.

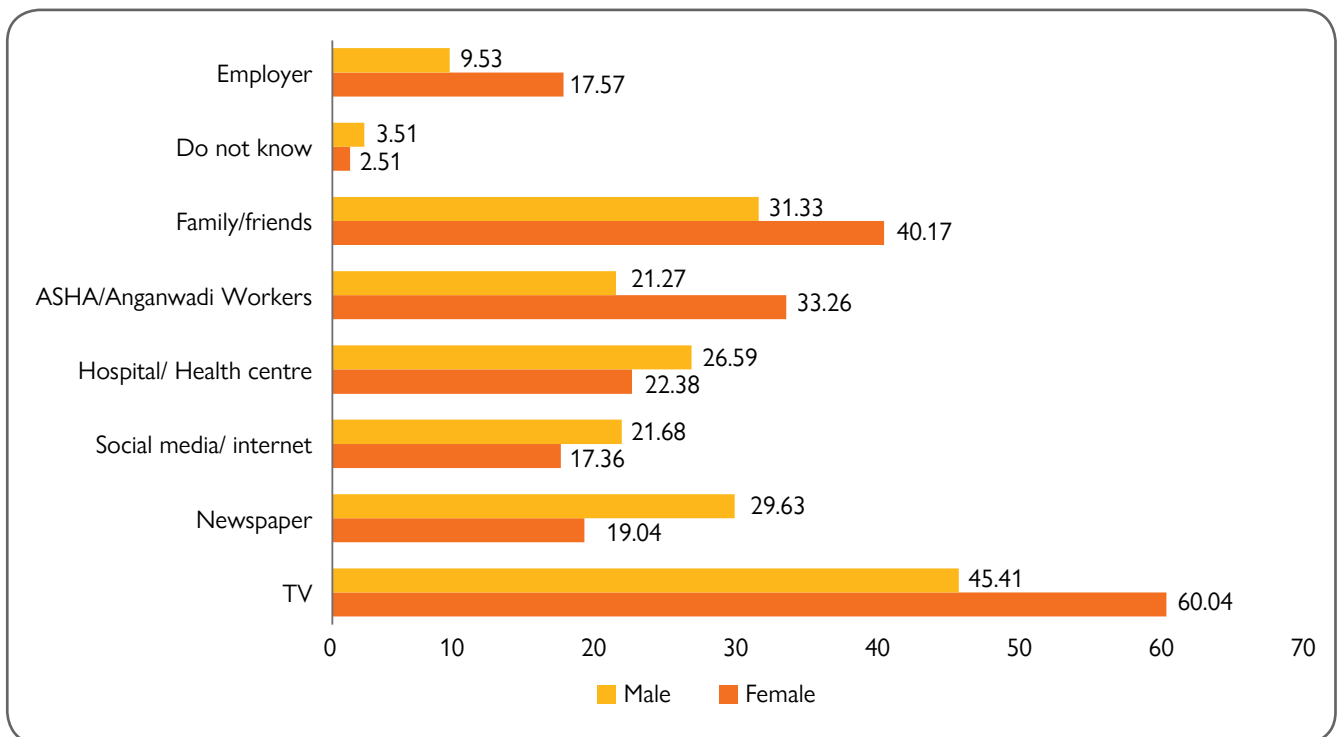
A majority of the respondents (85.7%) knew the location of the nearest vaccine administering facility. It is important to note, however, 12.8% were not aware of the same. About 92% knew that the COVID-19 vaccines were available free of cost. However, about 2% were unaware of this provision and received their respective dosages at a price. Many, particularly among women (23.0%) did not know the eligible age criteria to receive the vaccination, and those who did know there was an age limit set, had varying responses on the age limit. Nearly 80% knew that a vaccination certificate is issued after completion of a vaccine dose.

Figure 19: Aware about the COVID-19 Vaccination programme



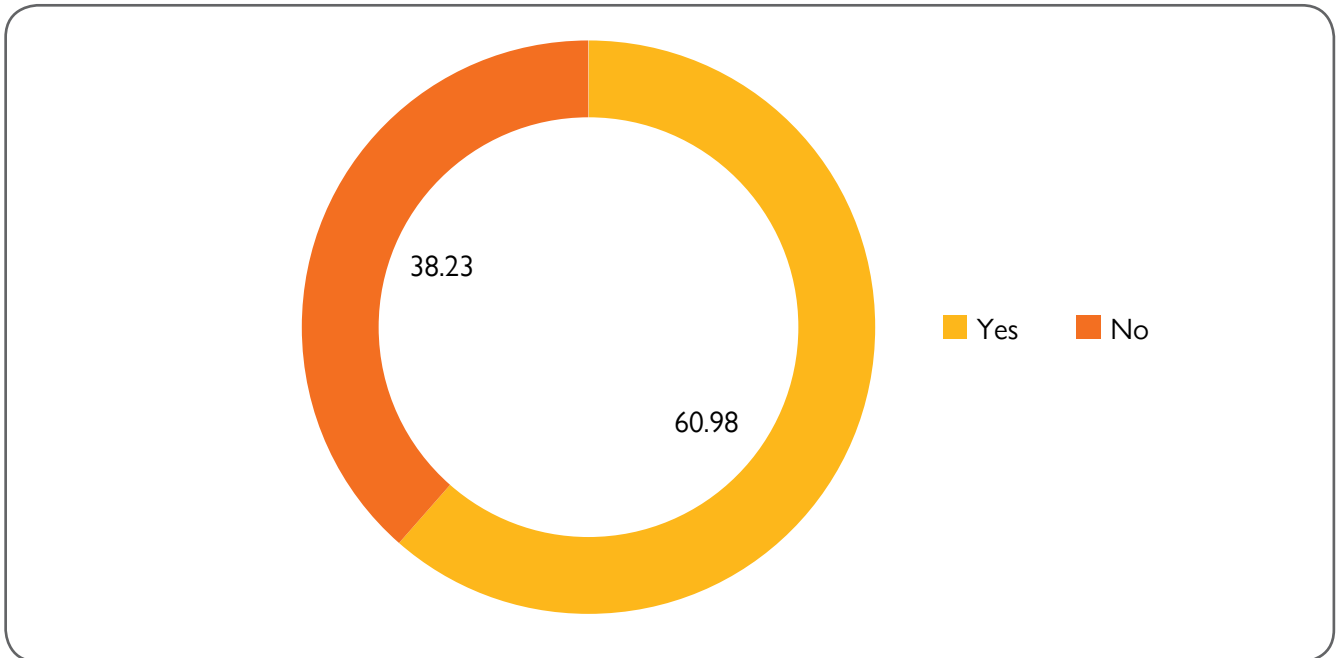
Note: N- 2,189 (f: 478, m: 1,711), **Missing- 59 (2.69%)

Figure 20: Source of information



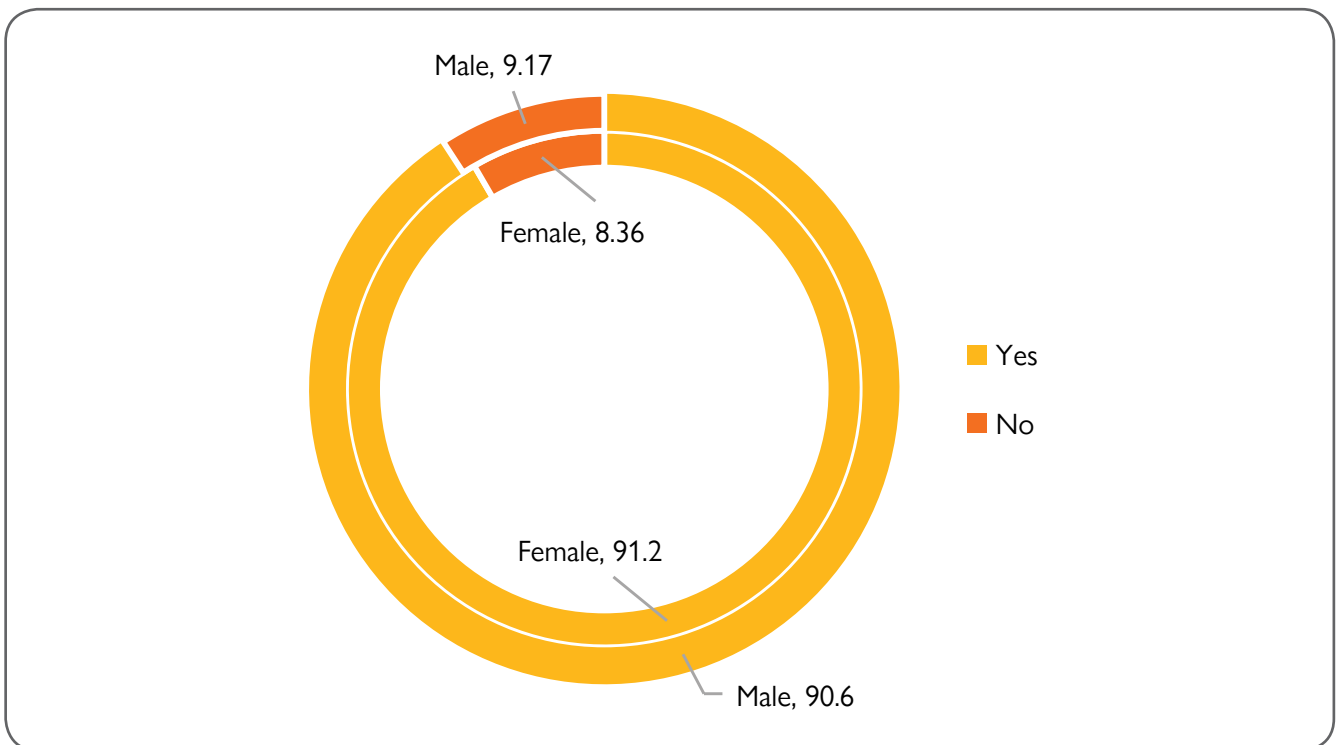
Note: N- 2,189 (f: 478, m: 1,711), *Multiple responses (only 'yes' tabulated here)

Figure 21: Registered to get vaccinated



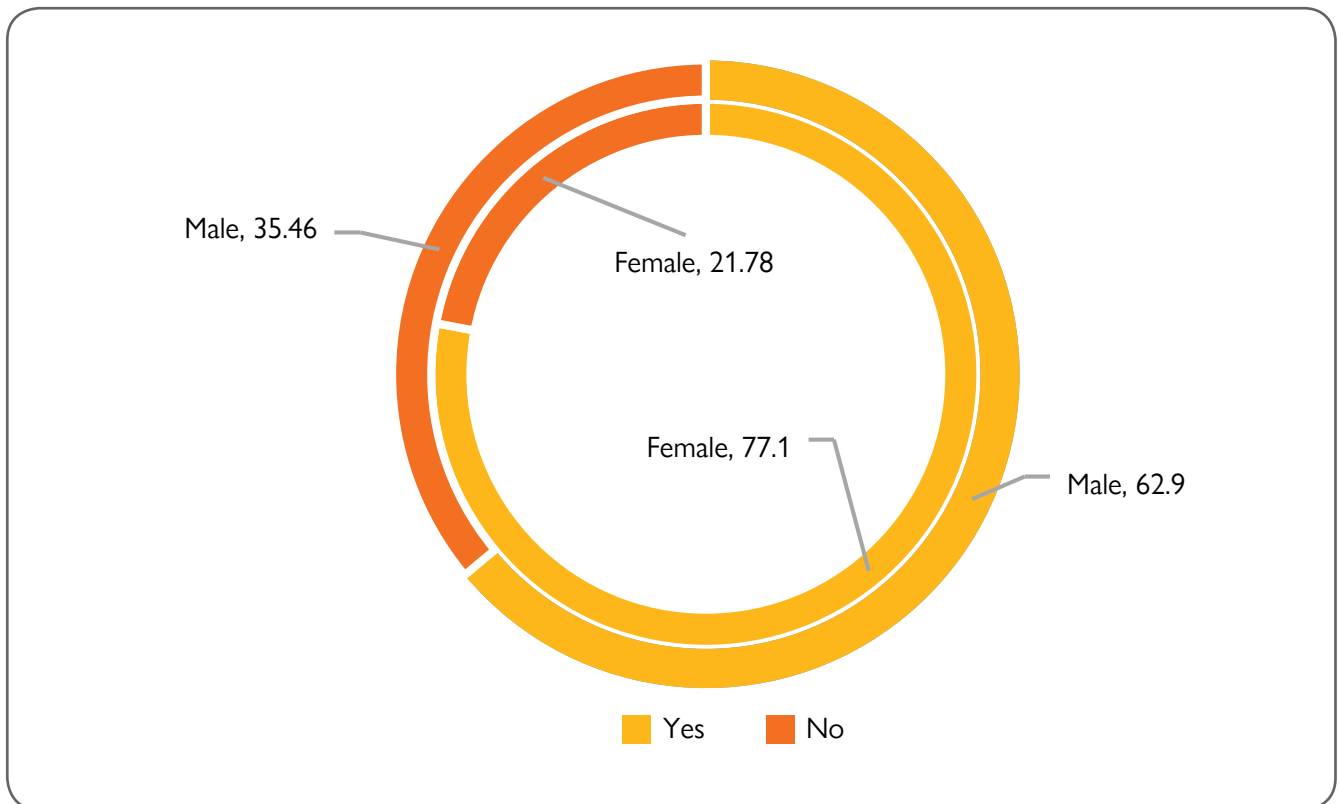
Note: N- 2,189 (f: 478, m: 1,711), **Missing- 17 (0.77%)

Figure 22: First dose of vaccine taken



Note: N- 2,189 (f: 478, m: 1,711), **Missing- 5 (0.22%)

Figure 23: Second dose of vaccine taken



Note: N- 1,987 (f: 431, m: 1,526), **Missing- 30 (1.50%)

Table 11: Awareness of Location of the nearest vaccination centres

Question	Female (%)	Male (%)	Total (%)
Yes	86.4	85.62	85.79
No	11.92	13.15	12.88
Total**	100	100	100

Note: N- 2,189 (f: 478, m: 1,711), **Missing- 29 (1.32%)

Table 12: Awareness of the cost of vaccines

Question	Female (%)	Male (%)	Total (%)
Free of cost	92.67	91.52	91.77
To be charged for a price	2.71	1.69	1.91
Total**	100	100	100

Note: N- 2,189 (f: 478, m: 1,711), **Missing- 138 (6.3%)

Table 13: Awareness of the eligible age to get vaccinated

Question	Female (%)	Male (%)	Total (%)
Yes, it is above 18 years of age	74.26	77.73	76.97
Yes, it is above 21 years of age	1.67	2.74	2.51
Yes, for adults only but not sure of the exact age	0.83	2.16	1.87
No	23.01	16.89	18.22
Total**	100	100	100
Note: N- 2,189 (f: 478, m: 1,711), **Missing- 9 (0.41%)			

Table 14: Awareness of receiving vaccination certificate

Question	Female (%)	Male (%)	Total (%)
Yes	70.08	82.34	79.67
No	29.7	16.59	19.46
Total**	100	100	100
Note: N- 2,189 (f: 478, m: 1,711), **Missing- 19 (0.86%)			

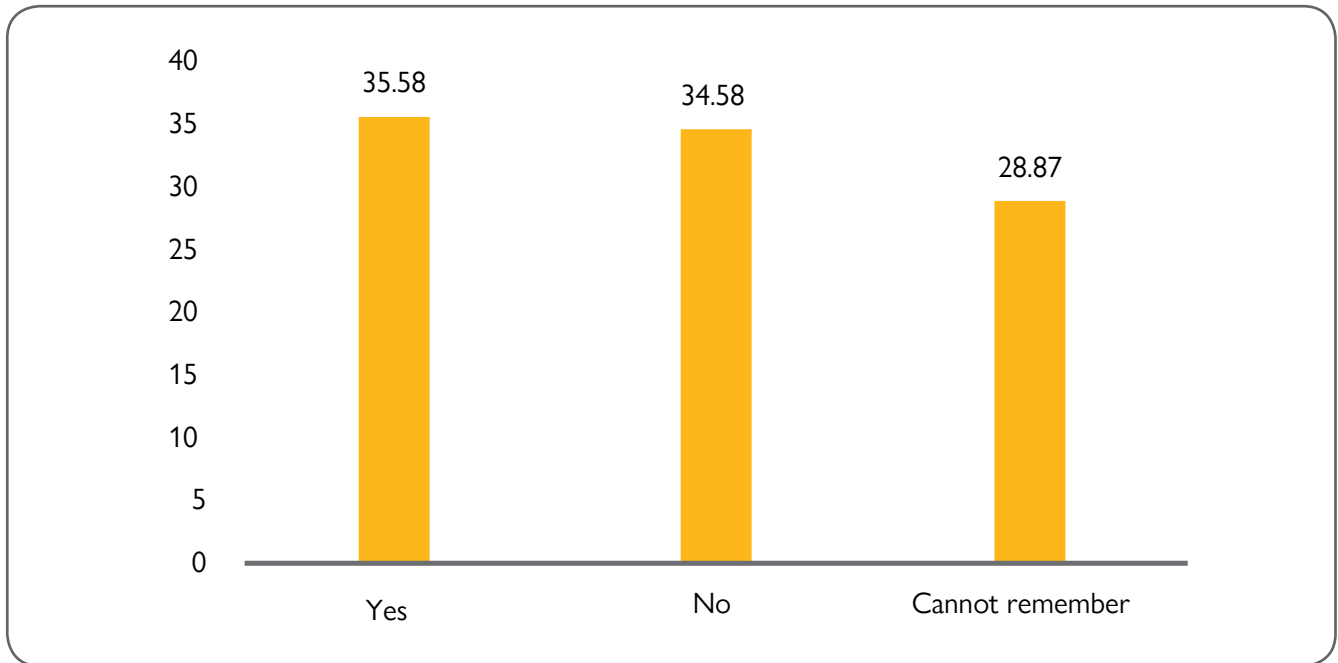
Forwarded messages of information

Respondents were asked further about their trust on information sources that carry COVID-19 related updates. During the pandemic, a wave of fear and panic accelerated worldwide, primarily driven by unfiltered and erroneous information through social media, triggering discrimination and stigma of the disease. There is an urgent need to understand the reactions, perceptions and the roles people play in this “infodemic” of COVID-19²⁵.

A reasonably large number of the respondents (35.5%) relied on the information they received through social media, particularly forwarded messages on messenger platforms through mobile phones. Of these, 62.0% reported having shared the same messages with their friends, colleagues and family on the same platform without evaluating the credibility of the content. Further, about 17% of respondents said they trusted information retrieved from social media, 28.2% reported depending on these sources only partially, while 20.6% did not trust this information at all and deemed them erroneous.

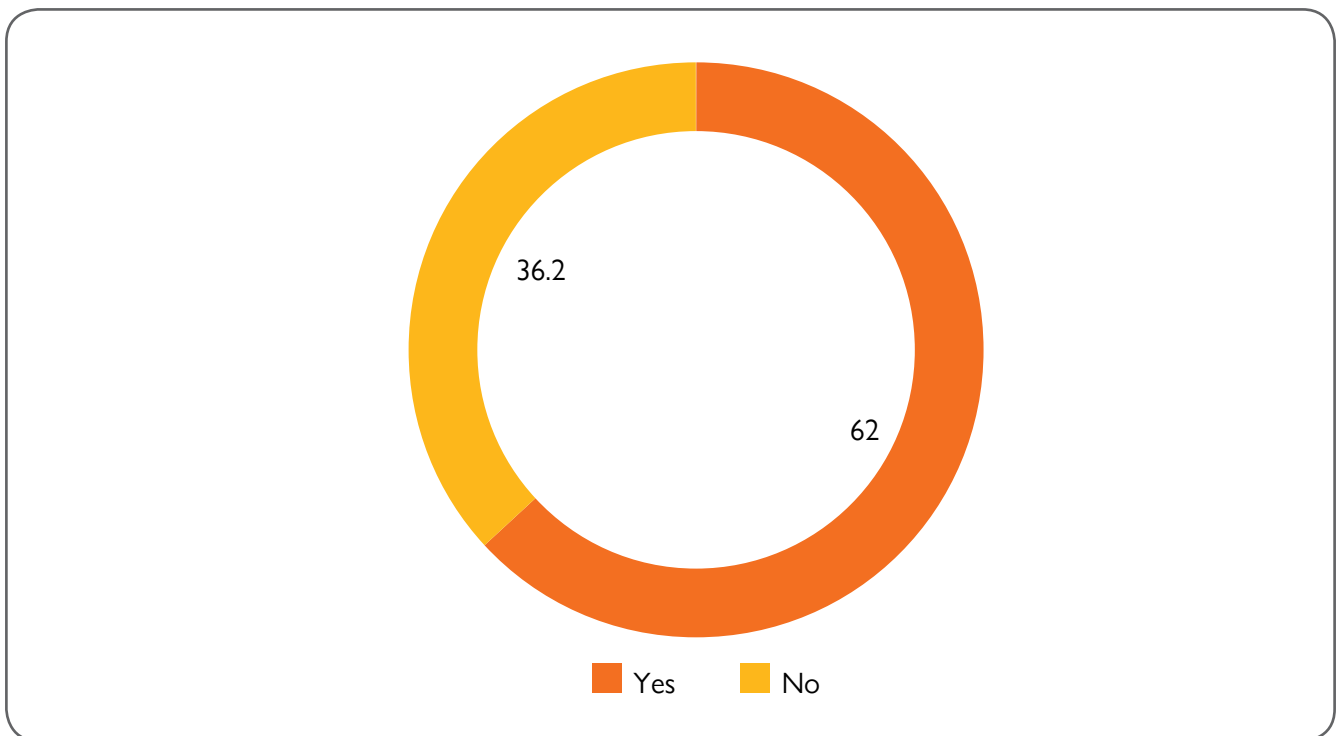
²⁵ Patel, M. P., Kute, V. B., Agarwal, S. K., & behalf of COVID, O. (2020). “Infodemic” COVID 19: More Pandemic than the Virus. Indian Journal of Nephrology, 30(3), 188.

Figure 24: Messages received on COVID-19 on social media



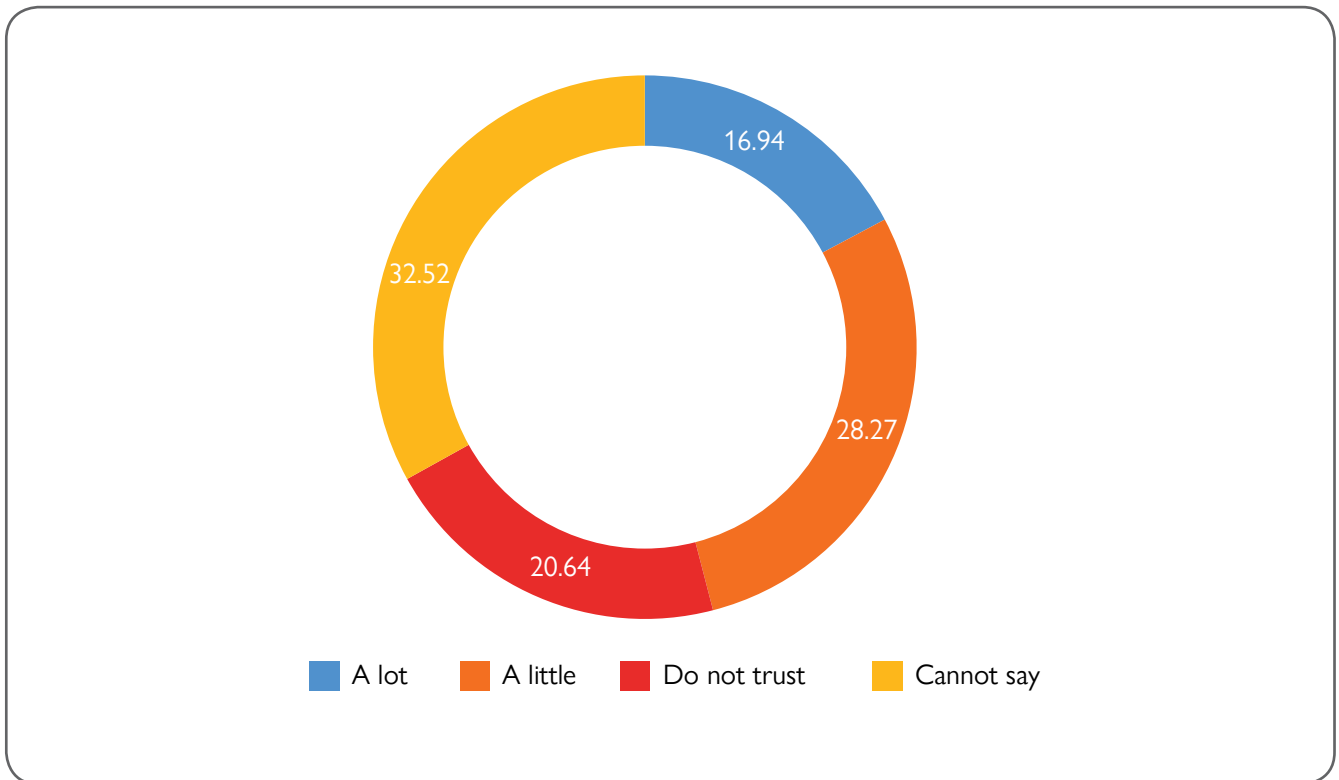
Note: N- 2,189 (f: 478, m: 1,711), **Missing- 21 (0.95%)

Figure 25: Forwarding forwarded messages on mobile phone



Note: N- 779 (f: 171, m: 608), **Missing- 2 (0.25%)

Figure 26: Confidence in the forwarded messages received



Note: N- 2,189 (f: 478, m: 1,711), **Missing- 21 (1.59%)

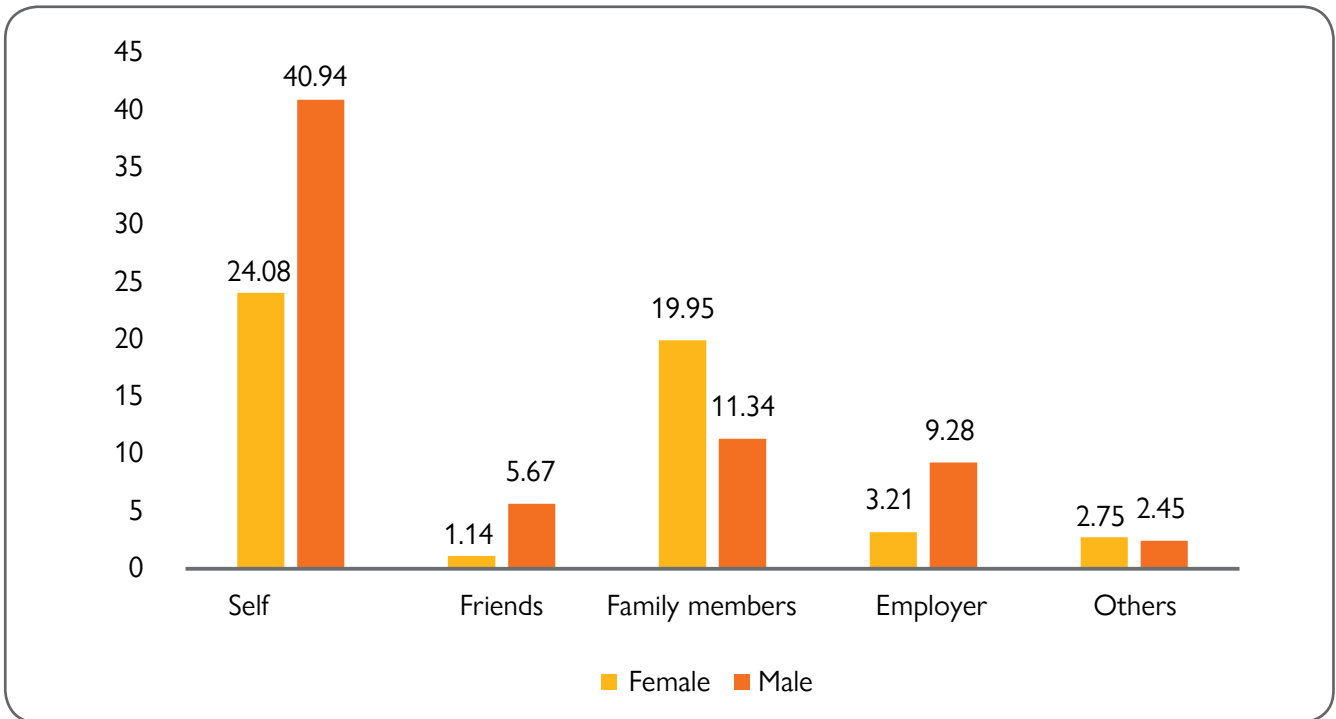
Vaccine Acceptance

Of the 90.8% who received their first dose of the COVID-19 vaccine, the study sought to understand the factors contributing to the decision to get immunized against the SAR-COV-2 virus. When asked who motivated the respondents to take the COVID-19 vaccine, a majority (about 41%) of men stated that they took the decision themselves to get registered and vaccinated. However, only 24.0% of women reported being self-motivated to do the same. Among women, discussions with family members (about 20%) influenced their decision to get the COVID-19 vaccine, whereas only 11.3% of men said their family members were motivators. Employers also played a role in motivating people to get registered and vaccinated against COVID-19 (about 8%).

One third of the respondent’s primary reason for getting vaccinated was to protect themselves from getting infected by the COVID-19 virus. Apart from COVID-19 vaccination being mandatory at the workplace (14.0%), other reasons to get vaccinated include advice from family (7.9%), friends (3.2%) and healthcare workers (about 1%). A small portion (0.4%) reported to have been influenced by mass media to get registered and vaccinated thereby protecting themselves and those around them.

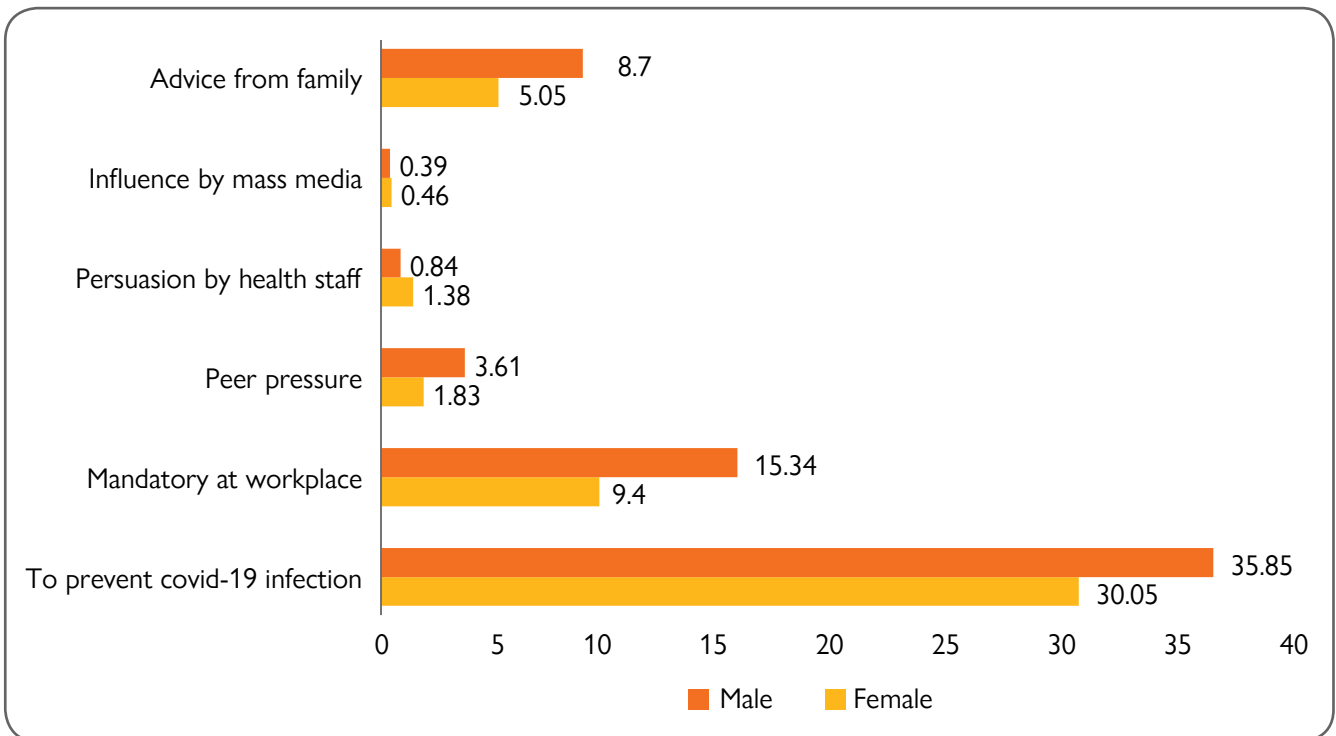
Most of them (44.4%) preferred to directly walk to the nearest COVID-19 vaccination centre to get a shot. Here, it may be noted that 47.0% of men had chosen to register this way compared to 35.3% of women. Only 16.4% (13.3% of women and 17.3% of men) had registered online via the CoWIN and Aarogya Setu applications.

Figure 27: Motivator for taking the vaccine



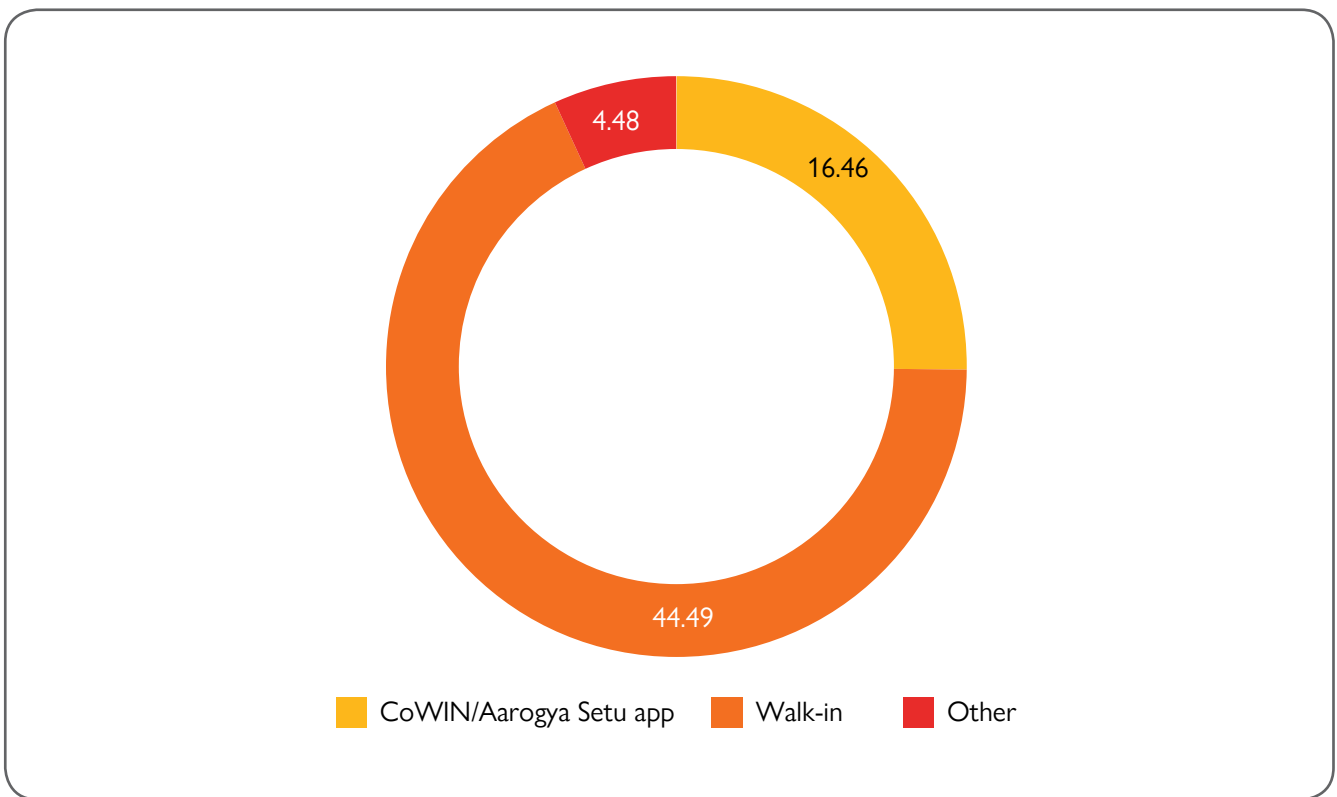
Note: N- 1987 (f: 436, m: 1,551)

Figure 28: Reasons for taking the vaccine



Note: N- 1987 (f: 436, m: 1,551), * Multiple Responses (only 'yes' tabulated here)

Figure 29: Registration mechanism



Note: N- 1987 (f: 436, m: 1,551)

Vaccination status of household members of migrant workers

Most migrant households had at least five members residing together under one roof (71.1%). A quarter of them reported that five to ten members live in their households while 3.4% had more than ten family members under one roof. Eighty per cent of the respondents reported that all eligible women in their family got at least one dose of the COVID-19 vaccine, whereas about 12% said that the same had not and about 7% did not know whether the women in their household have or have not received the COVID-19 vaccine as mandated. Similarly, 76.0% reported that all

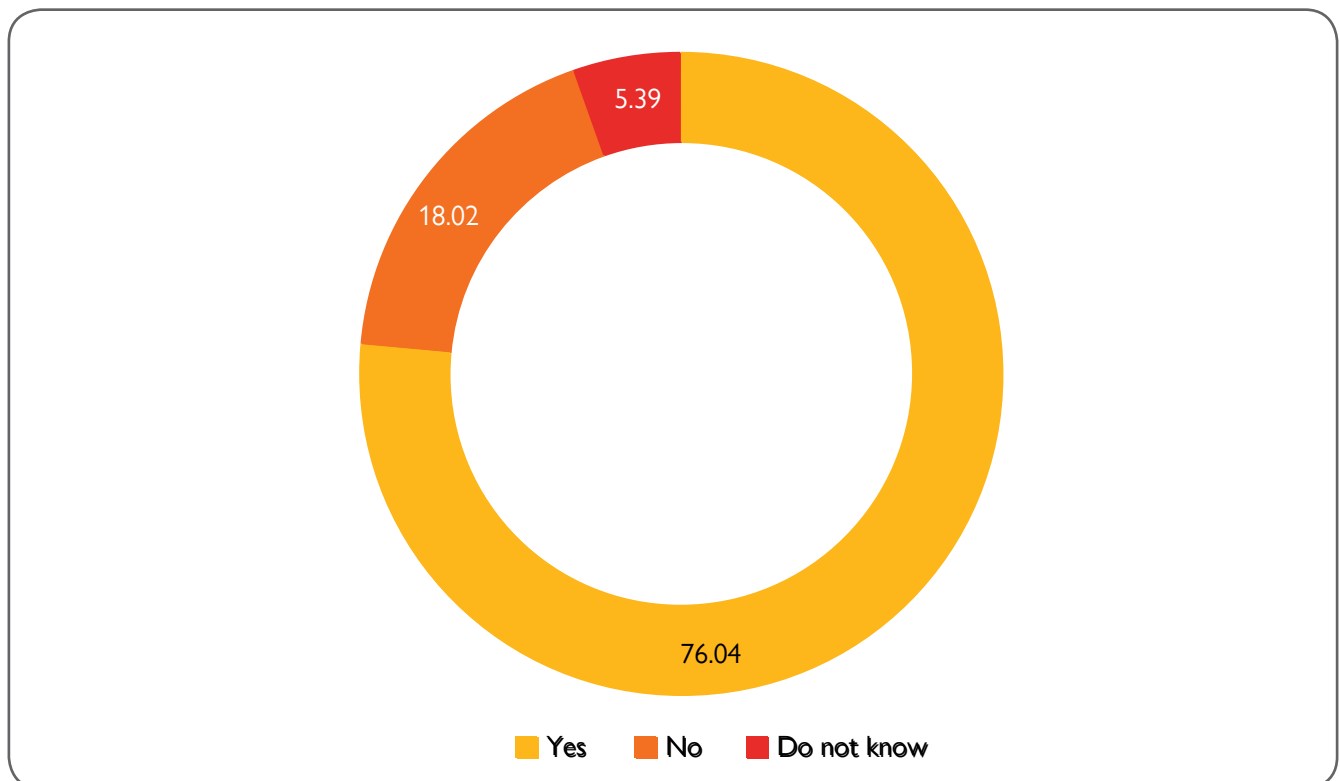
eligible men in their household received at least one dose of the vaccine, while 5.3% were unaware if their male relatives had been vaccinated.

Of the few who provided reasons for why the eligible women in their family delayed their immunization, about half of them noted that it was not their turn yet to be vaccinated and would eventually be scheduled to get a shot in due time. Eighteen percent reported that their kinswomen did not have time to schedule a day to get the vaccination, considering their household responsibilities. About 10.3% also stated not being aware that women needed to receive the COVID-19 vaccine as well.

Table 15: Migrant Household

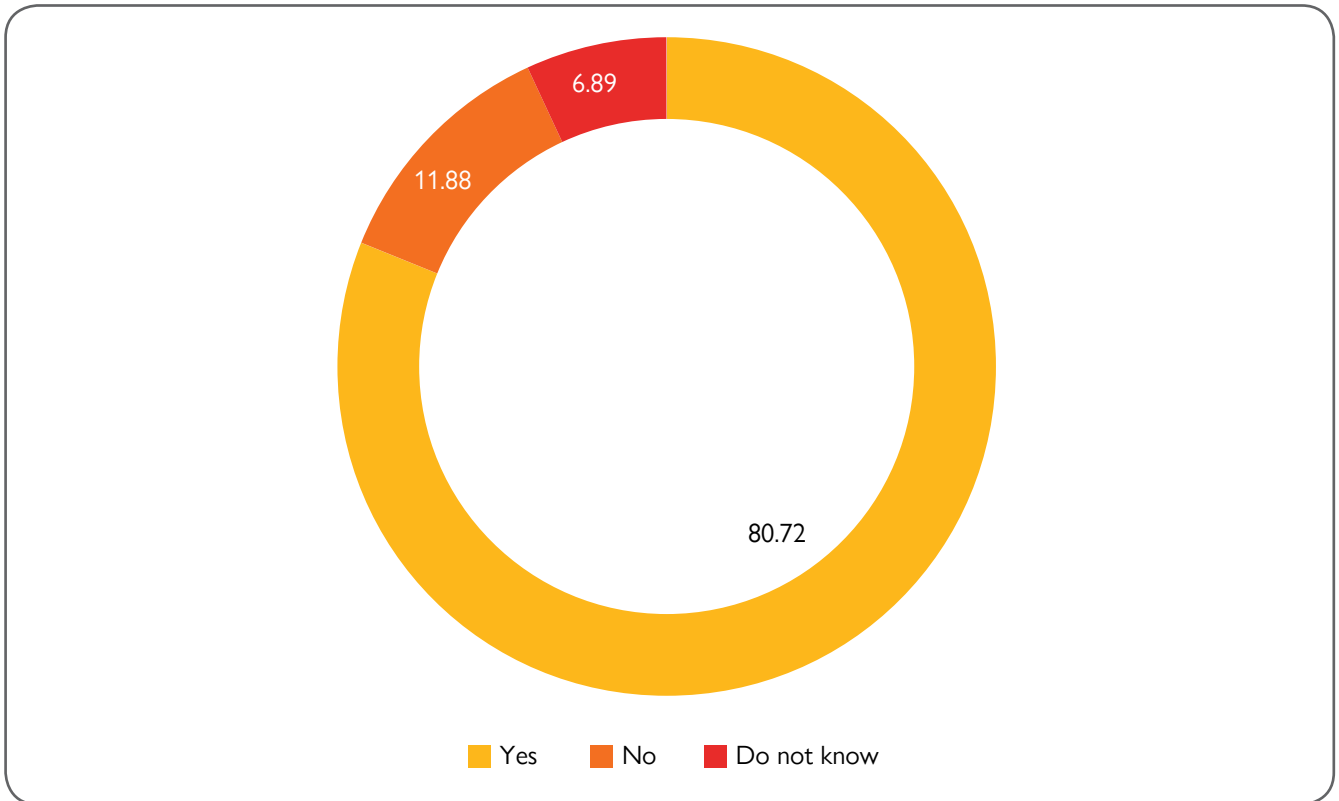
Question	Persons (total %)
Number of household member	
1-5	71.11
5-10	25.16
More than 10	3.47
Total**	100
Note: N- 1987 (f: 436, m: 1,551), ** Missing - 5 (0.25)	
Number of female household member	
1-3	88.68
3-5	9.56
5-7	1.01
More than 7	0.45
Total**	100
Note: N- 1987 (f: 436, m: 1,551), ** Missing - 6 (0.30)	

Figure 30: All Eligible males vaccinated



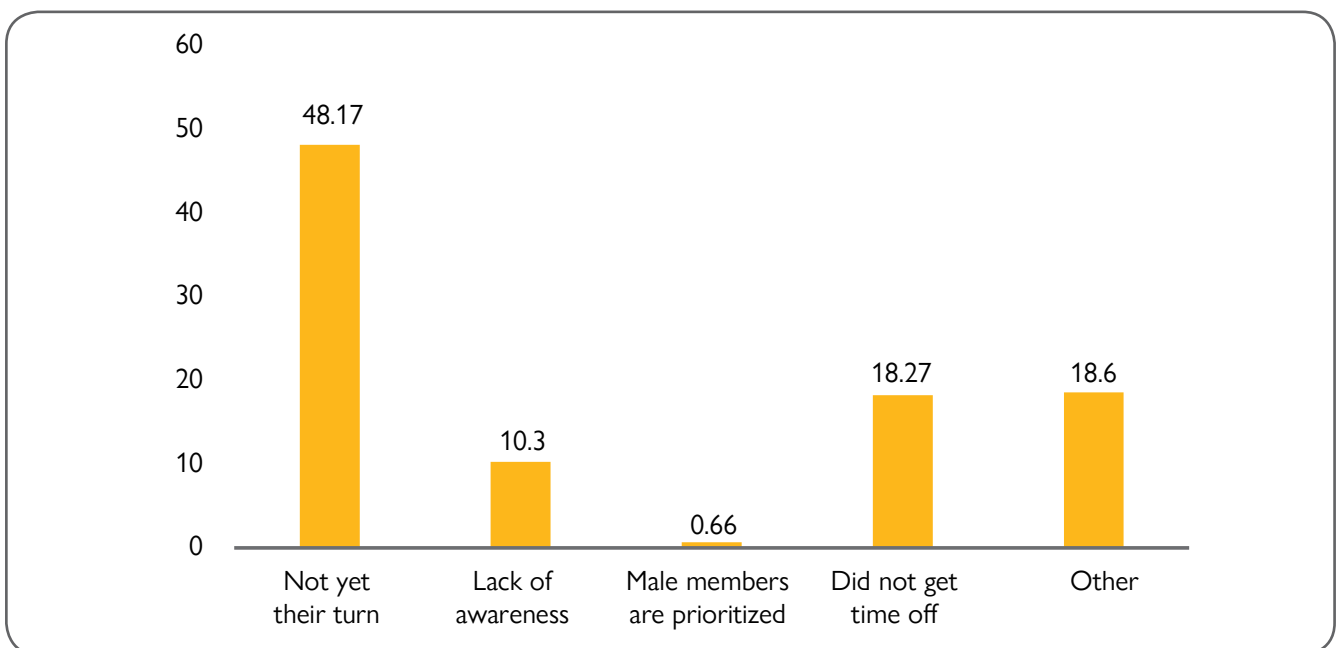
Note: N- 1987 (f: 436, m: 1,551), ** Missing - 11 (0.55)

Figure 31: All Eligible females vaccinated



Note: N- 1987 (f: 436, m: 1,551), ** Missing - 10 (0.50)

Figure 32: Reasons for eligible female not vaccinated yet



Note: N- 301, ** Missing - 12 (3.99)

Extent of accessibility

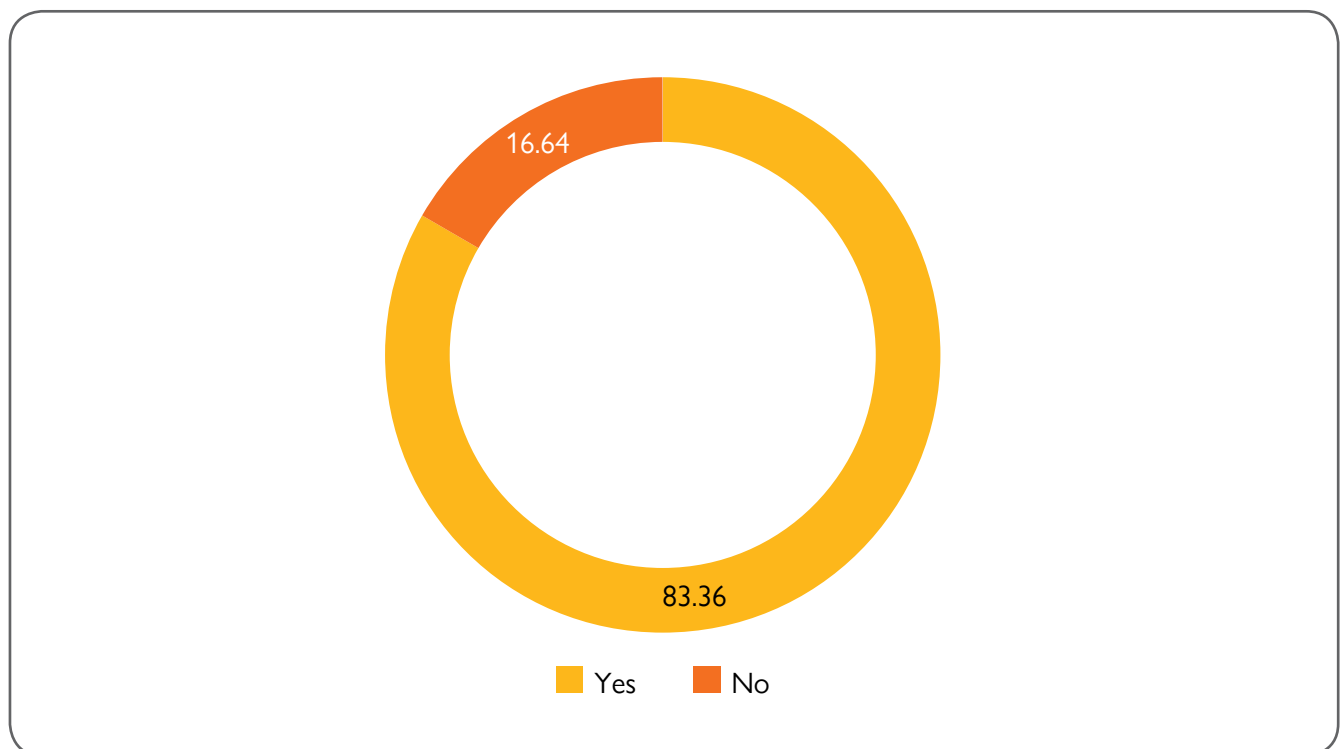
As the pace of COVID-19 vaccination coverage continued to increase, the study intended to assess the extent of migrant worker’s accessibility to the vaccines. About three-fourth of the cohort (83.3%) reported having good access to local state guidelines and other COVID-19 vaccine-related information in their native language, allowing for better comprehension. However, 16.6% reported not being able to access information in the language of their preference.

Apart from directly approaching COVID-19 vaccination centres to get a shot administered, the option to schedule a slot for receiving the vaccine was available through two internet-based platforms (mobile and web-based): CoWIN and Aarogya Setu. Despite 59.2% owning a smartphone, only 5.4% downloaded the application on their phone, of which about one-third registered and booked a slot for the vaccination by themselves. Furthermore, a small proportion of the respondents provided insight on the assistance they received to get

registered, with most (particularly women) reporting family members and employers assisting them with the online registration process.

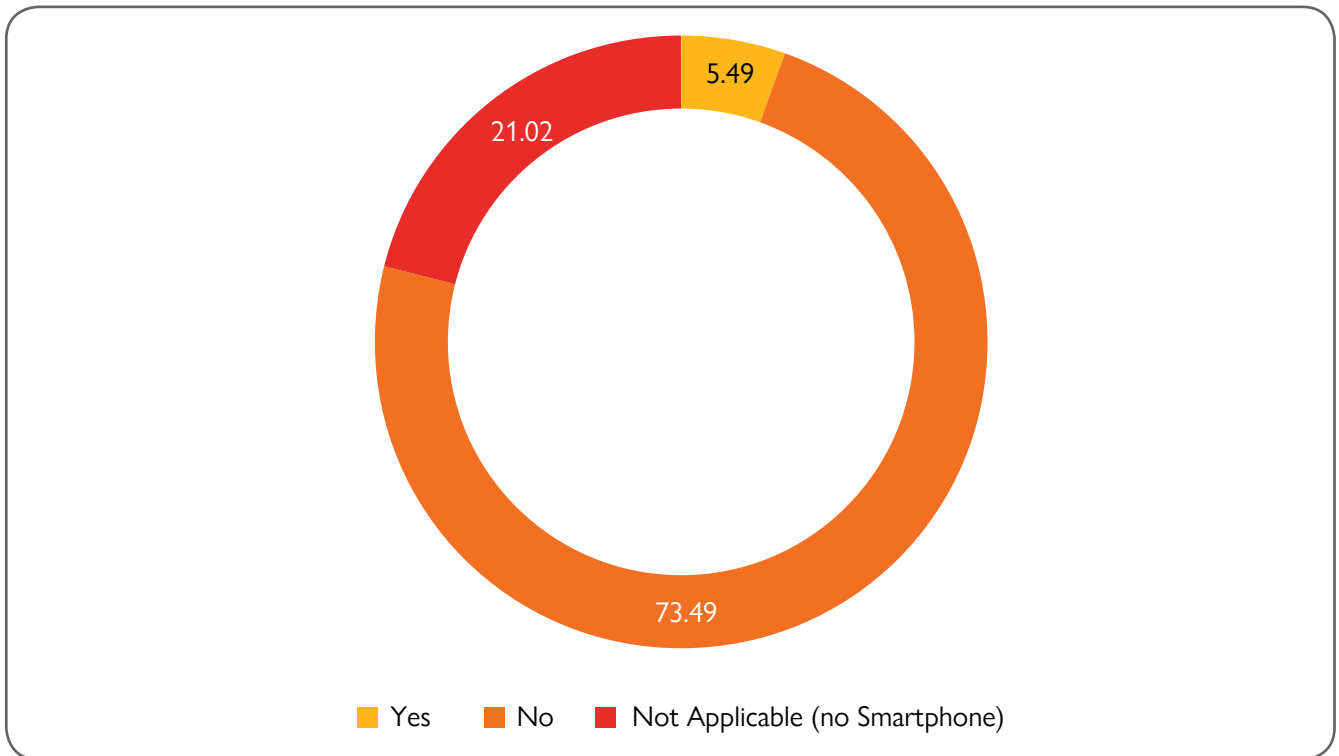
About 13% reported shortages of COVID-19 vaccines in their area of residence during the time of the survey, which contributed to the delay in receiving the vaccine. As reported earlier, some respondents (about 10%) paid for the vaccine out of their pocket, which stands as a barrier to access. Other factors that were identified as barriers that delayed their reach to the COVID-19 vaccines include the mandatory requirement for identification documents (14.0%) to get registered for the COVID-19 vaccine. However, 70.1% reported not submitting any documentation before the vaccine was administered. Regarding the issuance of COVID-19 vaccination certificate, 13.7% said they did not receive a receipt of any kind following the completion of each or both dosages. While 32.3% received a certificate after the first dose, 6.0% received one only after the second dose but not after the first, and 47.3% received a vaccination certificate after receiving both the doses of the COVID-19 vaccine.

Figure 33: Accessibility to information in their native languages



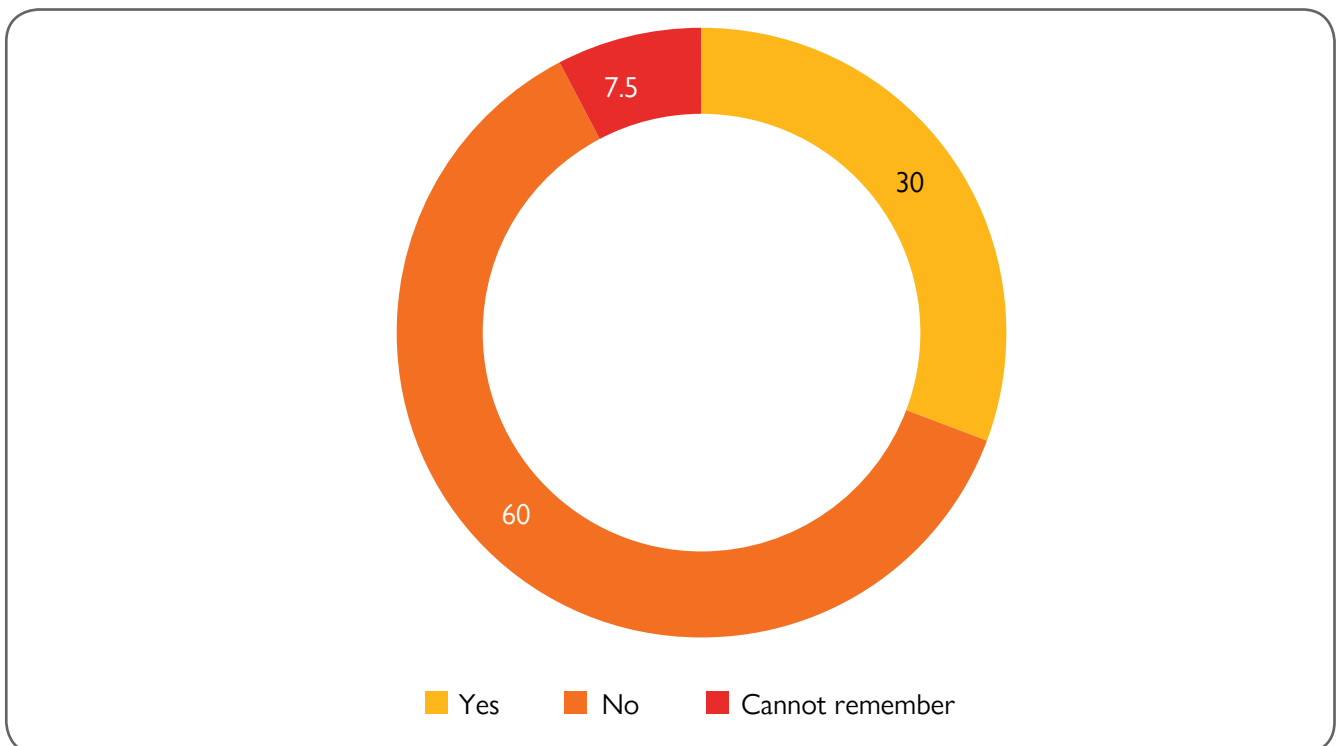
Note: N- 721 (f. 211, m: 510)

Figure 34: Downloaded CoWIN/Aarogya Setu app



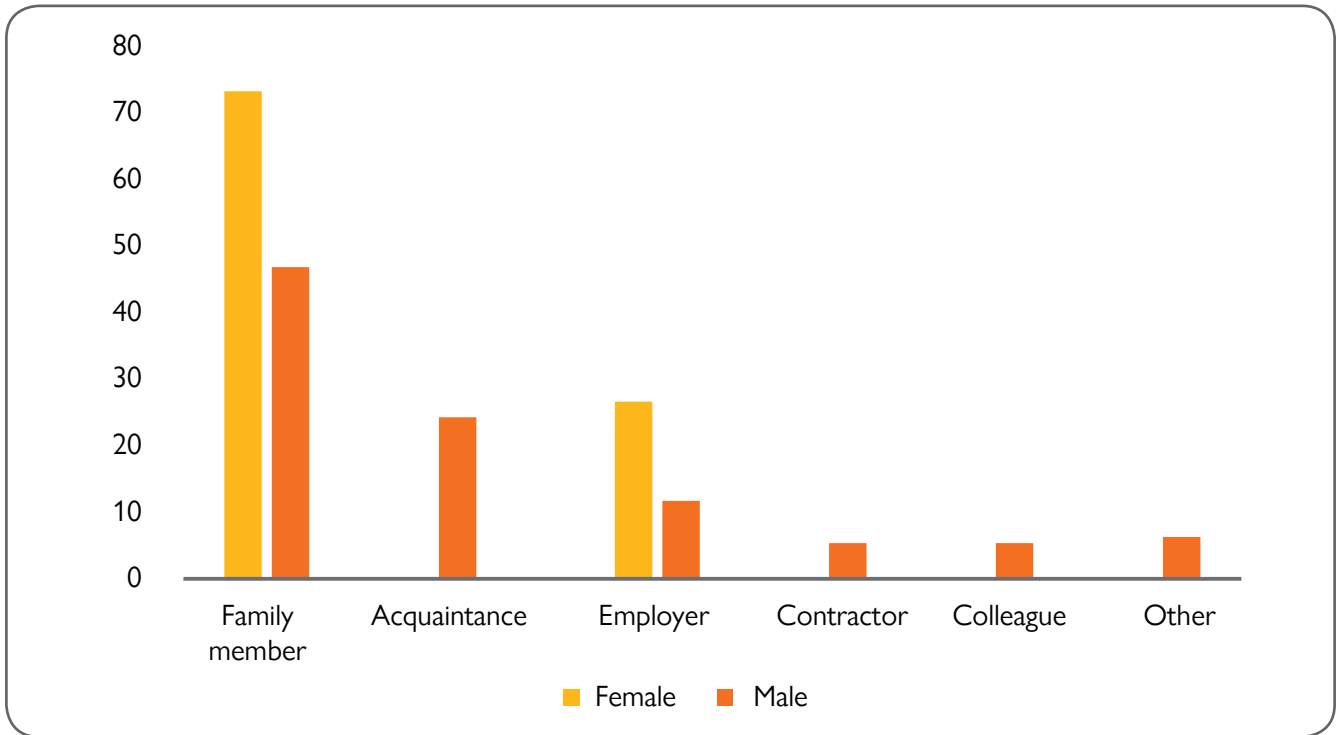
Note: N- 728 (f: 211, m: 517)

Figure 35: Self-registration



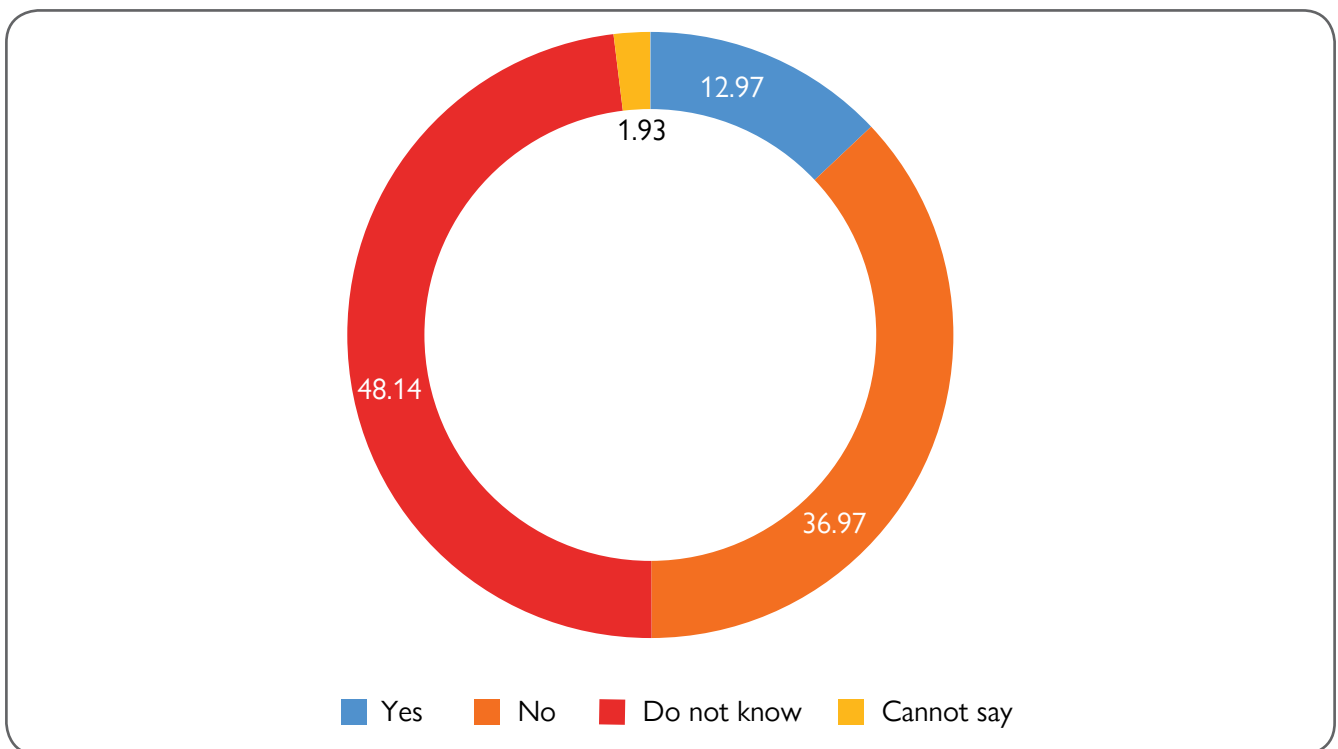
Note: N- 40 (f: 9, m: 31)

Figure 36: Assistance provided in registering with the CoWIN/ Aarogya setu app



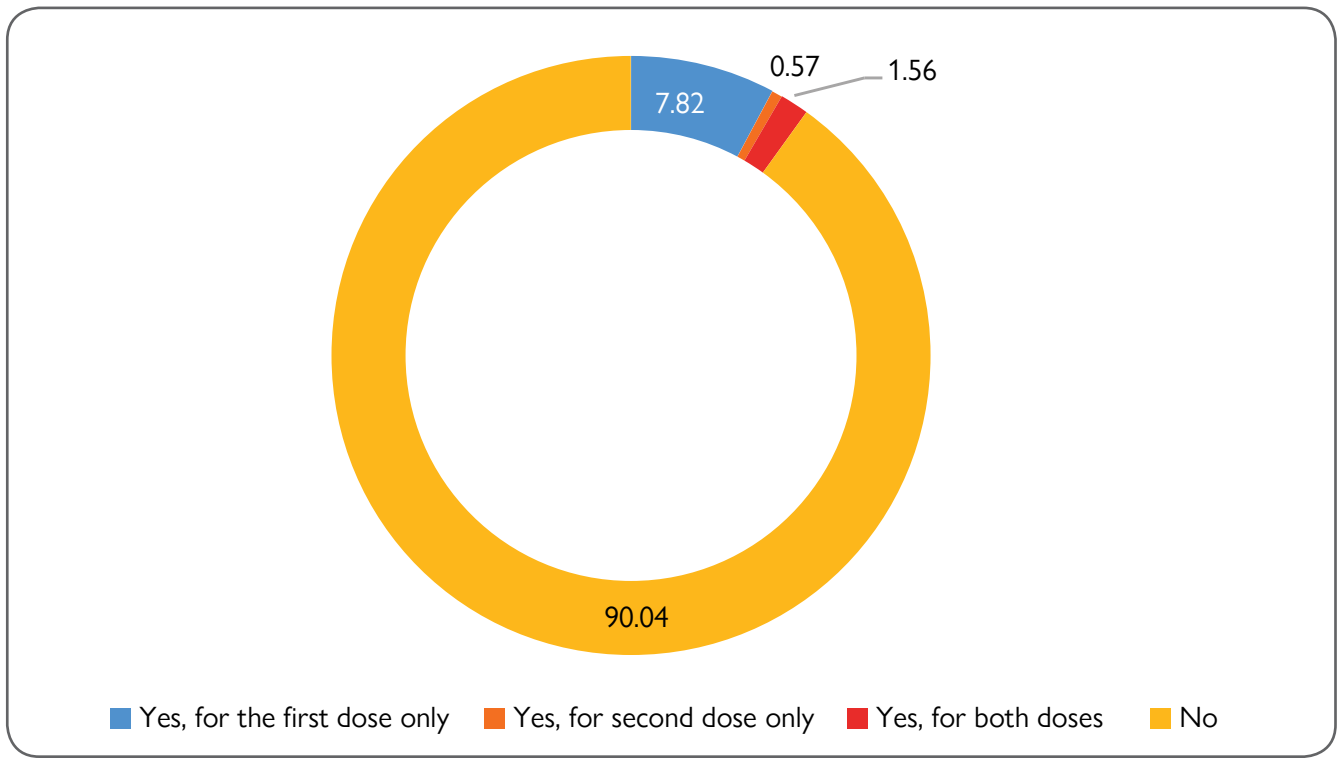
Note: N- 126 (f: 15, m: 111)

Figure 37: Limited availability of vaccines around the current place of residence



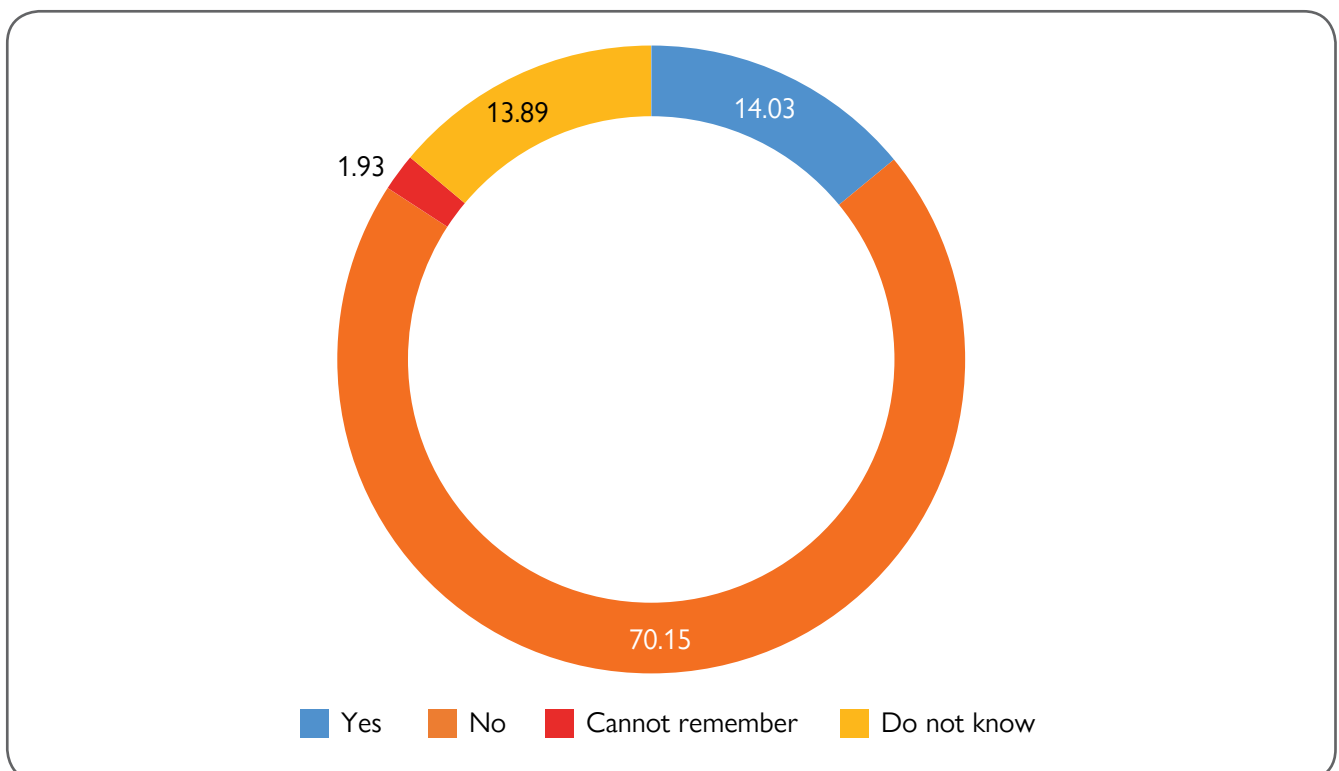
Note: N- 725 (f: 209, m: 516)

Figure 38: Payment-out-of-pocket



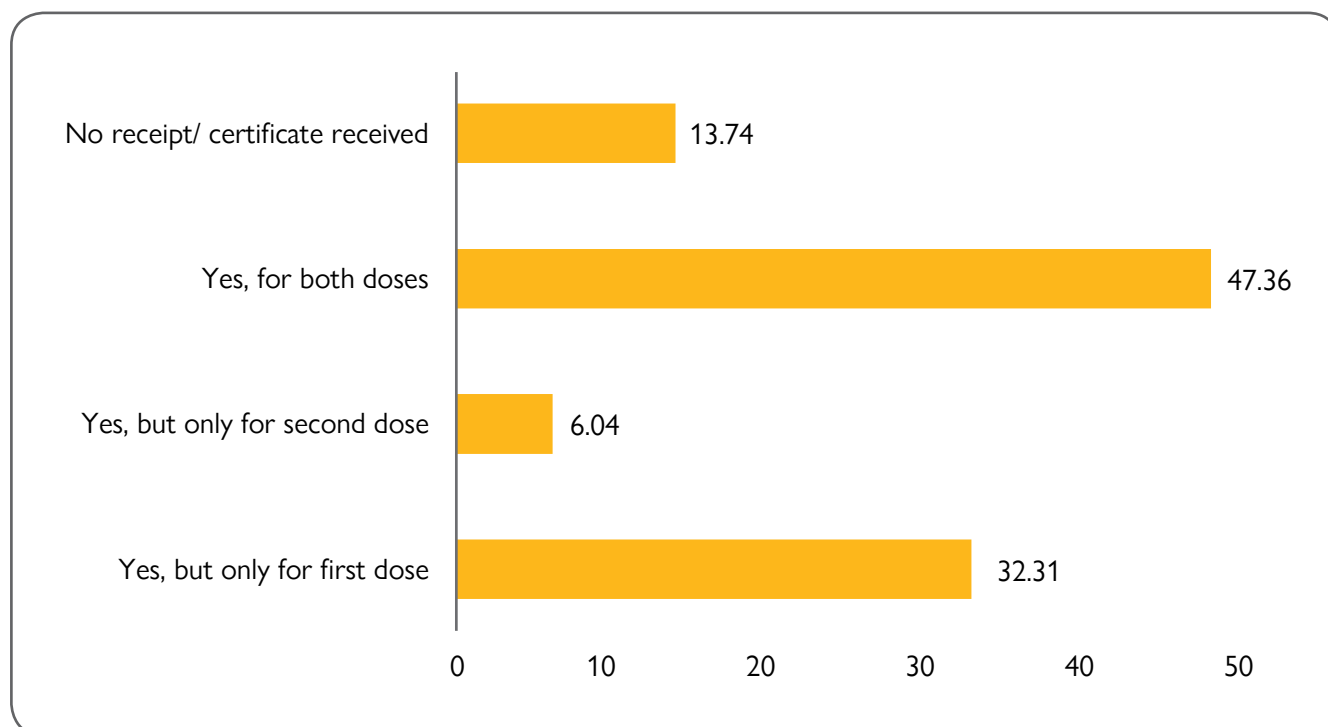
Note: N- 703 (f: 207, m: 496)

Figure 39: Identification document required for registration



Note: N- 727 (f: 209, m: 518)

Figure 40: Vaccination certificates received



Note: N- 1987 (f: 436, m: 1551), ** Missing – 11 (0.55)

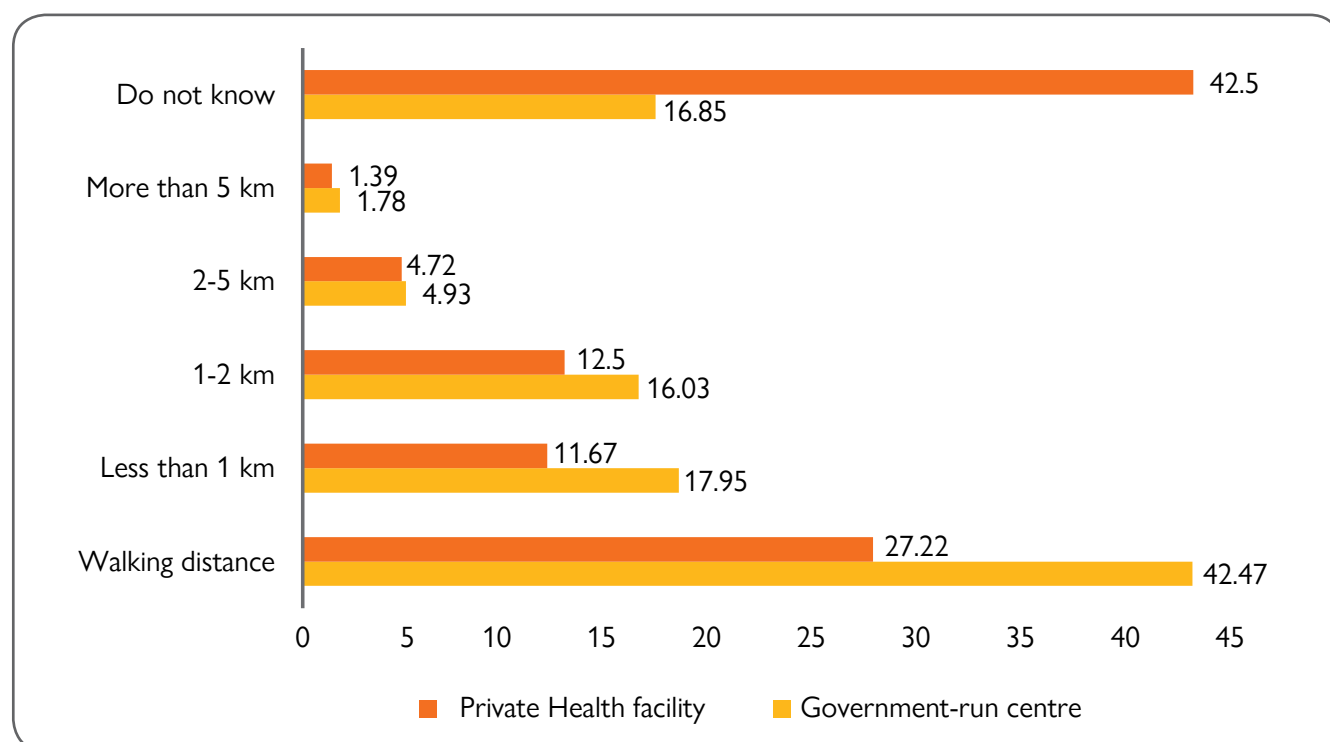
Access to Government-run and private health facilities

The study also looked into the preference and ease of accessibility to vaccine-administrating facilities. Equal importance was observed to be accorded to both government-run and private health facilities. However, easy access in terms of distance to the facilities leaned towards government-run rather than private. Over 42% found the nearest government-run facility to be within walking distance, as compared to 27.2% who could walk to privately-run facilities within their area of residence. Only less than 2% noted that the nearest vaccine-administrating facility was more than five kilometres away. Close to 18% mentioned the nearest Government centre to them was less than a kilometre away, while only 11.6% said the same regarding private

facilities. About 21% had a government-run facility centre within a five-kilometre radius from their place of residence, and 17.4% found privately-run ones within five kilometres from them.

Close to half of the respondents used public transport to the vaccination centres. About 27.5% used their transportation to privately-run health facilities and 19.0% to government-run ones. Four main criteria were cited by the respondents when asked about the factors that enabled them to choose the suitable facility to get vaccinated. The cost of the vaccine was the most commonly chosen factor (58.8%), particularly among women (80.1%). Vaccine availability was also noted by about 20% of the respondents. Other factors that were considered were long waiting lines (1.5%) and the complexity of the registration procedure (1.0%).

Figure 41: Distance to nearest COVID-19 Vaccination Centre



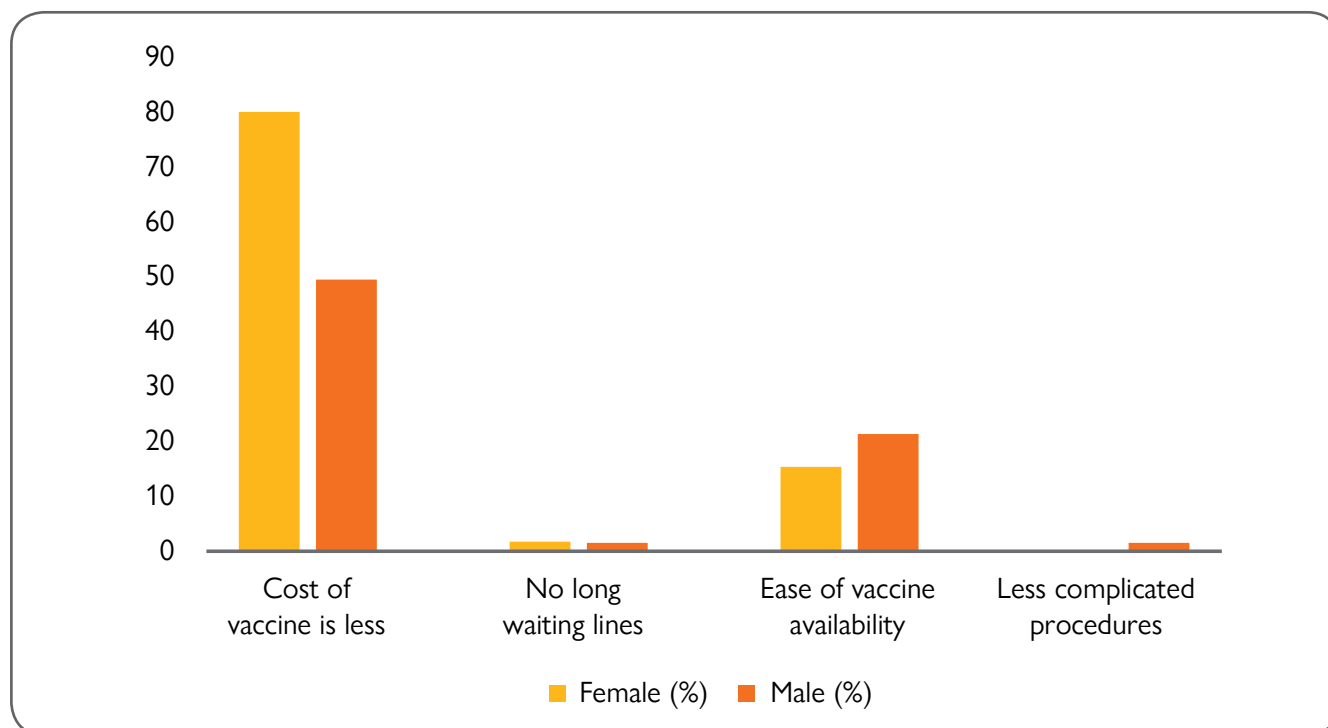
Note: N- 1450 (Govt.: 730, Private: 720)

Table 16: Availability of transportation to the facilities

Question	Government-run centre	Private Health facility
Own vehicle	19.03	27.56
Use public transport	48.21	44.63
Other	15.74	15.61
Do not have any transportation facilities	17.02	12.2
Total	100	100

Note: N- 1109 (Govt.: 699, Private: 419)

Figure 42: Factors for choosing vaccine-administering facility



Note: N- 578 (f: 176, m: 402), **Missing – 2 (0.35)

Vaccine Hesitancy

Scientific literature defines “vaccine hesitancy” as a set of beliefs, attitudes and behaviours that influences people to decline, delay or doubt the vaccine²⁶. The study sought to understand the different perceptions surrounding the vaccine that may provide an insight into vaccine confidence and reluctance. Questions under this section were asked to those who had not taken the first and/or the second dose of the COVID-19 vaccine at the time of the survey. Regarding vaccine confidence, 68.4% believe the COVID-19 vaccine to be effective, while about 23.1% are not sure on the same and 8.3% had no confidence in the effectiveness of the COVID-19 vaccine. The concerns were primarily about adverse reactions or side effects following the administration of the vaccine. Close to 19% reported delaying the vaccine administration due to fears of the manifestation of adverse effects post-administration.

When questioned further on the side effects that they believed could cause them harm post vaccine-administration, a range of responses were received, which include fever, backpain, body ache, tiredness

and fatigue, vomiting, breathing difficulties, upper respiratory illnesses, heart attack, hair loss, infertility, impotency, physical disabilities and even death. Many raised concerns over losing workdays if side effects occurred, and some mentioned they would not have anyone to care for them should they fall ill after taking the vaccine.

In January 2022, during the survey, as the Omicron variant of the SARS-COV-2 virus was on the rise, concerns over the hospital bed and critical medical resource shortages had resurfaced in light of the Oxygen shortage crisis faced during the second COVID-19 wave between February and July of 2021²⁷. Similar concerns were also reflected among the respondents, with about 30% echoing that should an adverse reaction or side effects occur post the administration of the vaccine, the availability of life-saving medical resources may be limited for them.

The respondents who received their COVID-19 vaccination, even those with only one dose completed, were asked if they showed any symptoms of post-COVID-19 vaccine related-side effects in the seven

²⁶ <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8005329/>

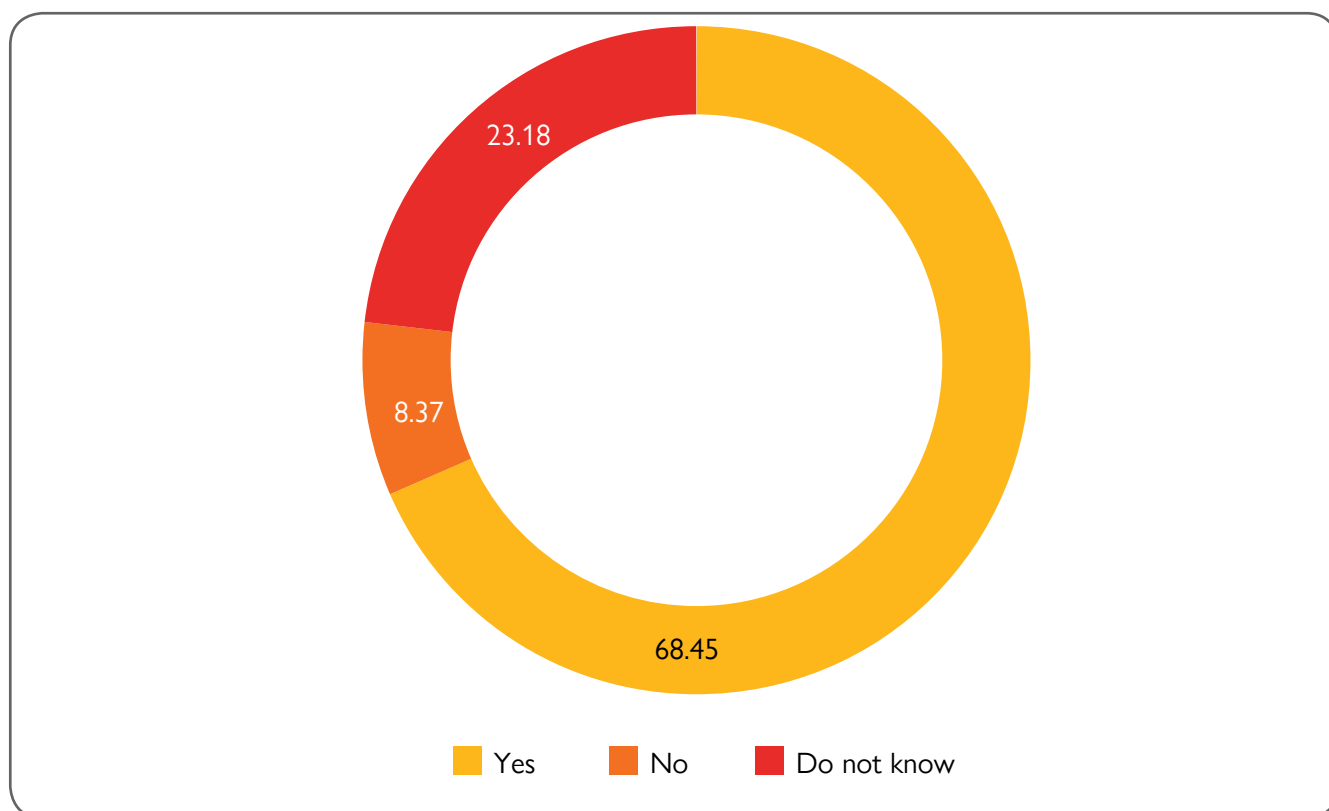
²⁷ <https://www.cnbc.com/2022/01/06/india-covid-commissioner-on-omicron-cases-impact-on-mumbai-hospitals.html>

days following their vaccine administration. About 32% developed symptoms after receiving the first dose, and 7.5% developed after both the doses. Close to 12% reported knowing a family member or a close associate who developed post-vaccine administration side effects. Twenty-three per cent of respondents missed a few days of work after receiving the vaccine due to side effects.

About three-fourth of respondents had confidence in health professionals administering the COVID-19 vaccine, however, 8.0% reported to not have confidence

and 15.7% did not comment on the same. Twenty-two percent had difficulties in understanding instructions on information related to vaccine administration at the centres, including reading and filling out forms, following directions etc. Furthermore, 9.3% of the respondents said they have previously experienced poor medical services and negative attitudes at vaccination and health centres.

Figure 43: Confidence in the effectiveness of the COVID-19 Vaccine



Note: N- 729 (f: 209, m: 520)

Table 17: Concerns regarding COVID-19 side effects post-vaccine administration

Question	Female (%)	Male (%)	Total (%)
Yes	17.22	19.23	18.66
No	69.38	63.46	65.16
Do not know	13.4	16.35	15.5
Total**	100	100	100

Note: N- 729 (f: 209, m: 520), ** Missing – 5 (0.69)

Table 18: Concerns regarding COVID-19 side effects post-vaccine administration

Question	Female (%)	Male (%)	Total (%)
Yes	17.22	19.23	18.66
No	69.38	63.46	65.16
Do not know	13.4	16.35	15.5
Total**	100	100	100

Note: N- 729 (f: 209, m: 520), ** Missing – 5 (0.69)

Table 19: Concerns regarding access to medical care if side effects occurred

Question	Female (%)	Male (%)	Total (%)
Yes	16.27	34.23	29.08
No	59.81	39.62	45.4
Cannot say	22.97	24.81	24.28
Total**	100	100	100

Note: N- 729 (f: 209, m: 520), ** Missing – 9 (1.23)

Table 20: Personal experience with side effects from previous doses administered

Question	Female (%)	Male (%)	Total (%)
Yes, but only after the first dose	33.49	31.53	31.96
Yes but only after the second dose	2.52	3.55	3.32
After both the doses	4.13	8.45	7.5
No side effects	59.86	55.9	56.77
Total**	100	100	100

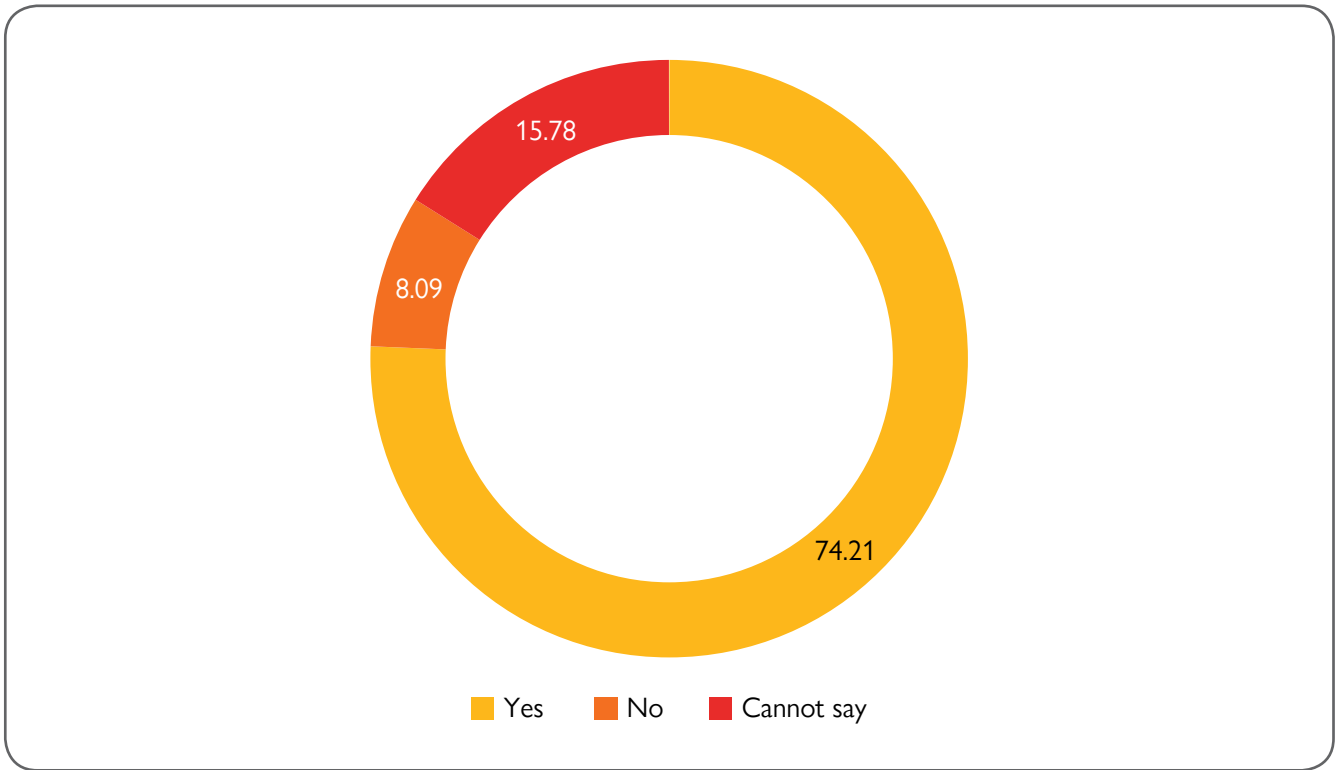
Note: N- 1987 (f: 436, m: 1551), ** Missing – 9 (0.45)

Table 21: Close associates develop side effects following vaccine administration

Question	Female (%)	Male (%)	Total (%)
Yes	8.61	13.27	11.93
No	75.6	49.23	56.79
Do not know	15.79	37.31	31.14
Total**	100	100	100

Note: N- 729 (f: 209, m: 520), ** Missing – 1 (0.14)

Figure 44: Confidence in healthcare professional who are administering the vaccine



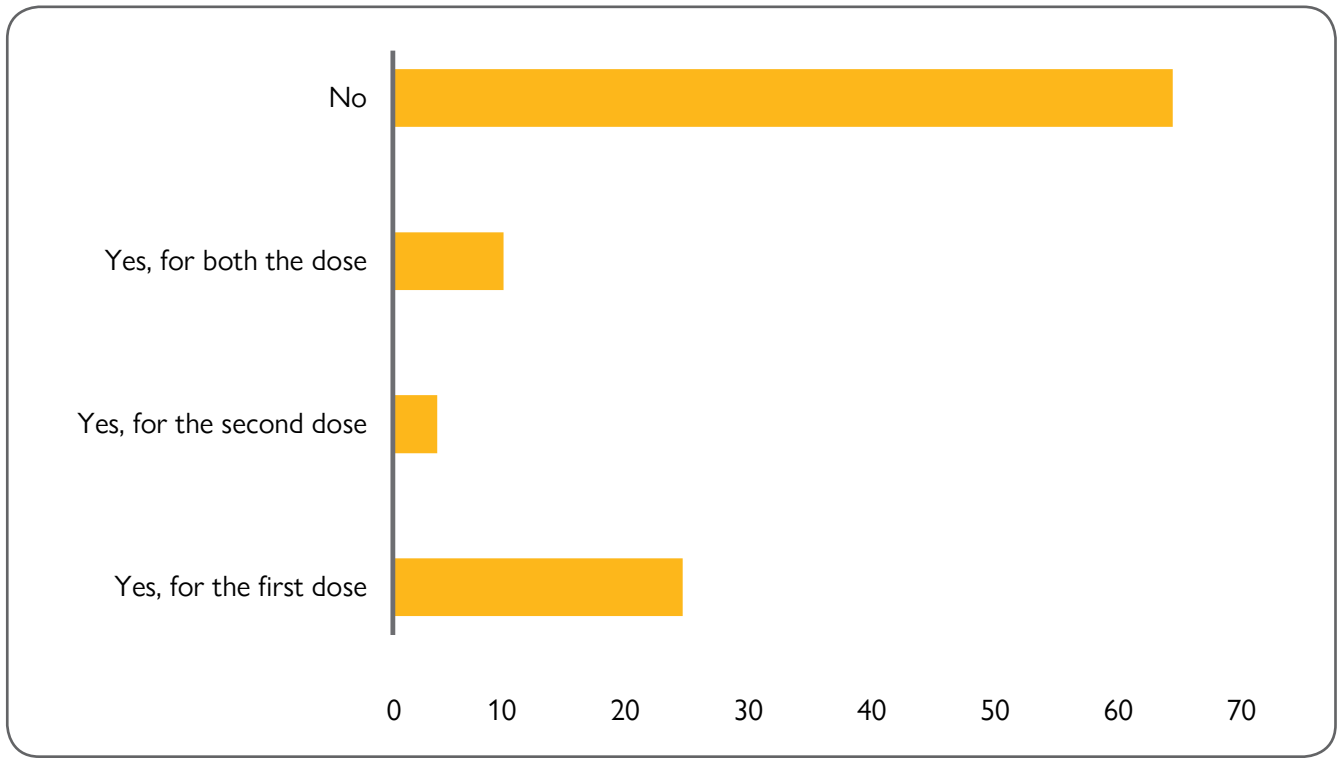
Note: N- 729 (f: 209, m: 520), ** Missing – 14 (1.92)

Table 22: Experience at vaccination center during previous administrations

Question	Female (%)	Male (%)	Persons (total %)
Negative experience (discrimination, ill treatment etc.) at the vaccination centre	3.45	11.03	9.37
Difficulty in communicating or understanding vaccine administration related information at the vaccination centre	18.66	23.23	22.13
Cannot remember	5.29	3.80	4.13

Note: N- 1,983 (f: 434, m: 1,549), *Multiple responses (only 'yes' tabulated here)

Figure 45: Missing days of work to get vaccinated



Note: N- 1987 (f: 436, m: 1551), ** Missing – 14 (0.70)

INTERNATIONAL MIGRANTS

Through the study, over 600 international migrants who travelled to GCC nations in the last one year were contacted for conducting the survey out of which, 303 persons (243 males and 60 females) completed the interview. Consent was taken from the respondents over the call and the enumerators were trained to proceed accordingly.

The international Indian workforce faced a similar situation during the initial few months of the pandemic. With mobility restriction measures such as suspension of international travel, closure of borders, revised visa and entry requirements and mandatory internal restrictions imposed to contain virus transmission, lives of emigrant workers were significantly affected. Emigrants in general have limited access to social security systems and support networks in host countries, which had left them in difficult situations as the number of COVID-19 cases increased.

Through the study, over 600 international migrants who travelled to GCC nations in the last one year were contacted for conducting the survey out of which, 303 persons (243 males and 60 females) completed the interview. Consent was taken from the respondents over the call and the enumerators were trained to proceed accordingly.

DEMOGRAPHIC CHARACTERISTICS

The descriptive statistics for international migrants are provided under in Table 17. The key characteristics are summarised below:

- Age group: Majority (41%) of international migrants fall between the ages of 25 to 35, while ~31% are between the ages of 35 to 44 years.
- Marital status: 81% of the respondents were married.
- Educational qualifications: About 40% of international migrants have a higher secondary school education, and 28% having only attended secondary school. Only 27% of the international migrants surveyed were graduates or had higher degrees.
- Work status: An overwhelming majority were wage/salaried employee.
- All the respondents had a smart phone.

Table 23: Descriptive characteristics of international migrants

Background Characteristics	Male (%)	Female (%)	Persons (%)
Age			
< 25	0.3	0	0.3
25 – 34	36.0	4.3	40.2
35 – 44	21.8	7.9	29.7
45 – 59	17.8	7.2	25.0
60+	2.0	0	2.0
No Response	2.4	0.33	2.6
Total	80.3	19.7	100
Marital Status			
Married	62.3	18.8	81.2
Unmarried	17.8	1.0	18.8
Total	80.1	19.8	100
Education			
Primary	2.6	1.6	4.3
Secondary	25.0	3.3	28.4
Higher secondary	33.0	7.2	40.2
Graduate or above	19.6	7.6	27.0
Total	80.2	19.8	100
Occupation			
Home-maker	0.6	0.4	1.0
Attended domestic duties only	1.3	1.3	2.6
Student	1.3	1.0	2.3
Seeking for work	0	0.3	0.3
Employer	4.3	0.6	4.9
Unpaid family worker	1.6	3.3	4.9
Worked as helper in household enterprise	4.3	2.9	7.2
Worked as regular salaried/ wage employee	62	8.9	70.9
Worked in household enterprise (self-employed)	1.0	0.6	1.6
Garment Industry	0.6	0	0.6

Background Characteristics	Male (%)	Female (%)	Persons (%)
Self-employed/Own account worker	2.0	0	2.0
Worked as casual wage labourer	0.6	0	0.6
No Response	0.5	0.3	0.8
Total	80.3	19.7	100
Ownership of Feature/Smart phone			
Yes	80.2	19.8	100
No	0	0	0
Total	80.2	19.8	100

Geographical Distribution

Table 18 gives a breakdown of the place of interview. Most of the interviews were telephonically conducted. Responses predominantly came from the western states of Gujarat and Maharashtra, followed by the southern states of Karnataka, Kerala, Tamil Nadu and Telangana.

Table 24: International Migrants by Place of Interview

Place of interview	Male (%)	Female (%)	Persons
Age			
Northern State (Delhi, Punjab, Bihar, Chandigarh, Haryana, Uttar Pradesh and Uttarakhand)	23.0	0	23.0
Southern States (Karnataka, Kerala, TN, Telangana)	21.1	10.1	32.0
Western States (Gujarat, Maha)	33.7	10.6	44.2
East (Odisha, Jharkhand)	1.0	0	1.0
United Kingdom	0.3	0	0.3
No Response	5.3	0.3	5.6
Total	80.2	19.8	100

Figure 45: Distribution of international migrants by source state

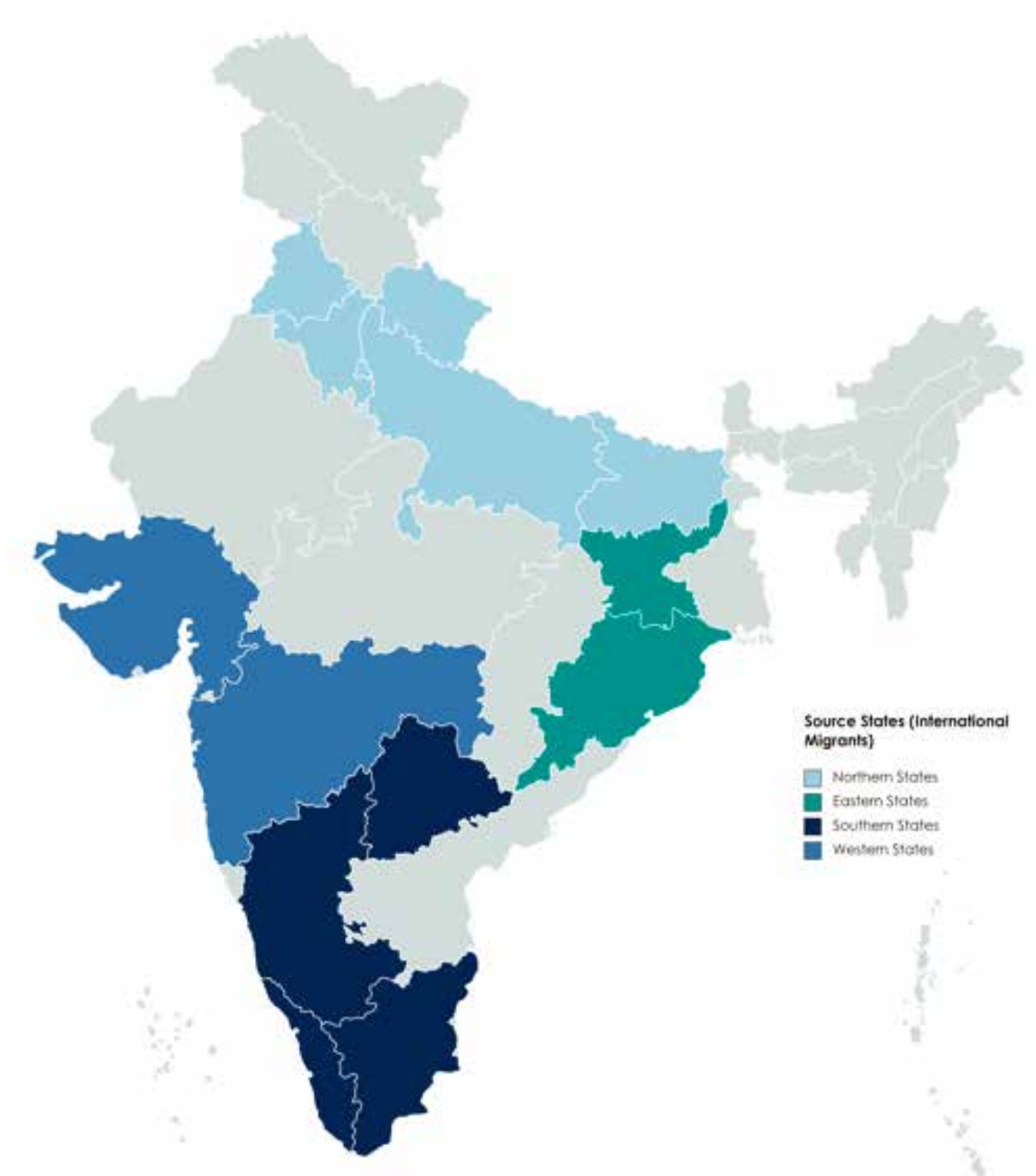


Table 19 describes the origin states and the destination countries the workers had last migrated to. A majority of the workers migrated to Qatar for work, originating from Maharashtra, followed by Uttar Pradesh, Punjab and Bihar.

Table 25: Place of origin and destination of international migrants

Place of Origin	Place of Destination (Countries)					
	Kuwait	Oman	Qatar	Saudi Arabia	United Arab Emirates	United Kingdom
Andhra Pradesh		1	3			
Bihar	1	1	16			
Gujarat	1	7	9		2	
Jharkhand			1	1		
Karnataka			6			
Kerala			2	2		
Maharashtra	4	1	33	1	2	
Odisha			1			
Punjab	1	3	19		1	1
Tamil Nadu			1			
Uttar Pradesh	1	5	22			
Uttarakhand			1			
Total	8	21	115	4	5	1

KEY RESULTS

Most of the respondents (about 99%) reported that they were aware of the COVID 19 and its symptoms. Fever was predominantly identified as a COVID-19 symptom by 21.0%, followed by cough (20.0%) and difficulty in breathing (18.9%). Most of them got their information from the television (18.2%), social media (17.7%), web searches (16.7%) and newspaper (12.8%). The respondents also reported to regularly practice COVID-19 appropriate behaviour, such as maintaining social distancing (32.9%), wearing face masks (29.1%), staying indoors (21.8%) and using hand sanitizers (15.6%). About 59% of the respondents reported that they always wore masks in public, while 39% reported wearing masks only sometimes.

Thirty-five per cent of the respondents stated that lack of COVID-19 risk communication at the workplace that delayed the delivery of vital information was one of the biggest barriers faced (35.3%). Some workplaces had limited access to hand sanitizers (19.1%) and face masks (7.4%). Majority of the international migrants surveyed reported to have never tested negative for COVID-19 (91.1%), however about 20% of respondents reported to know a close associates/family members who tested positive for COVID 19.

About 95% reported to be aware of the COVID-19 Vaccination programme in their host country. Sixty six percent of the respondents mentioned that the Internet was their major source information about the vaccination programme, followed by family and friends (62.0%).

Hospitals and health centres were also major sources of information to them (48.0%). All the 303 respondents had completed their COVID-19 vaccination doses by the time the survey was conducted.

Almost every international migrant surveyed registered online for the COVID-19 vaccination. In terms of ease of access to vaccination, a key factor mentioned was

the distance to the nearest vaccination centre. More than 90% did not face any barrier to get vaccinated and among those who did face barriers, internet connectivity issues, lack of user-friendly mobile based registration systems, and problem with identification documents were cited by them.



Summary of Key Observations

This study was conducted amidst the third COVID-19 wave (between November 2021- February 2022), when almost all states in India saw an exponential rise in new cases, primarily driven by the Omicron variant.

Internal Migrant workers

This study was conducted amidst the third COVID-19 wave (between November 2021- February 2022), when almost all states in India saw an exponential rise in new cases, primarily driven by the Omicron variant. As new variants of the SARS-CoV-2 continue to emerge, there was an urgent need to evaluate and understand the extent of COVID-19 cognizance, practicability of COVID-19 appropriate behaviour, and factors influencing vaccine acceptance or reluctance and barriers affecting access to the COVID-19 vaccines among migrant workers, particularly in the informal sector. This would better inform public health messaging and remove the practical barriers to vaccination coverage for this vulnerable cohort.

This study demonstrated that almost all migrant workers had a general understanding of the COVID-19 pandemic. Most understood the importance of practising COVID-19 appropriate behaviour to curb the transmission of the infection and to protect themselves. However, not all were familiar with the symptoms of COVID-19, which indicates the need for a more robust health messaging, risk communication and migrant community engagement. As newer variants of the SARS-COV-2 virus are being discovered, interventions are being upscaled and modified to contain the rate of transmissibility²⁸, which needs to be immediately communicated to the public, especially to the most

vulnerable of them.

The study notes that the most frequent protective measure practised by migrant workers is to wear a mask at work and in public. Lack of adequate dissemination of credible information on COVID-19 specific precautions, as well as information on COVID-19 vaccination such as the cost and benefits of the vaccine at the workplace were specifically flagged by the respondents, which indicates the need for a more uniformed and frequent risk communication strategy to migrant communities.

An overwhelming number denied having ever contracted COVID-19 infection, despite the high seroprevalence of COVID-19 in urban centres^{29,30}. This could be attributed to the social stigma and fear associated with the disease in light of the discriminative narrative of migrants seen as carriers of the disease, the fear of being quarantined or isolated, fear of being dismissed from work, misinformation and general dismay regarding COVID-19 perpetuated by unfiltered and erroneous information.

In early 2022, besides reinforcing mobility restrictions, vaccination campaigns were revamped and rolled out to contain the third wave. A majority of the respondents were aware of the vaccination programme. While the government announced the provision of free vaccines to all at government-run health facilities, only a few of the surveyed migrant workers were unaware of this entitlement, thus limiting their intent and access

²⁸<https://www.who.int/news-room/questions-and-answers/item/sars-cov-2-evolution>

²⁹<https://timesofindia.indiatimes.com/india/covid-19-cases-in-less-than-2-of-population-says-govt/articleshow/82755152.cms>

³⁰George, C. E., Inbaraj, L. R., Chandrasingh, S., & de Witte, L. P. (2021). High seroprevalence of COVID-19 infection in a large slum in South India; what does it tell us about managing a pandemic and beyond?. *Epidemiology and infection*, 149, e39. <https://doi.org/10.1017/S0950268821000273>

Further understanding of the gendered nature of health decision-making among women migrant workers and within the households of migrant communities is a pressing need.

to vaccinated. Primary sources of information on the COVID-19 vaccination programme include information from friends and family and the internet and forwarded messages through social media and messaging platforms.

The study also found the COVID-19 vaccination coverage among migrant workers to be good, with most respondents having at least the first dose of the COVID-19 vaccine administered and more than half of them completing their second dose as well. However, some migrant workers were still in the process of scheduling time to complete their vaccination. It is also important to note that the study captured a small cohort of migrant workers who remain fully unvaccinated. This cohort, however, did express their willingness to get immunized against COVID-19, but some obstacles impeded their attempts. Concerns about being asked to provide identification documents while registering were raised. Some faced difficulties registering via the CoWIN/ Arogya Setu App and, hence, preferred to walk into a government-run facility for vaccination. This was also expressed by respondents who had been vaccinated. Knowledge on the location of the nearest vaccination centre was lacking amongst those not vaccinated, highlighting a crucial need for migrant-specific communication consisting of updated state-wise information on COVID-19 vaccine mandates and availability.

Respondents also shed light on other barriers they had to overcome to get vaccinated. Missing a day of work and wages to arrive at the scheduled time of appointment or before the close of business was challenging. The possibility of losing more workdays to recover from the vaccine's potential side effects discouraged and delayed their decision to get vaccinated. Misinformation about the vaccine's effectiveness and misconceptions on the possible side effects fuelled by social media,

forwarded messages and shared stories among family and acquaintances impacted their willingness. However, the inclination to eventually get inoculated was overpoweringly to protect themselves and those around them against the rampant waves of COVID-19.

This study also focused on the access of women to the vaccination centres and ascertained any underlying causes that hindered their reach. A divide in access to technology and digital literacy was observed, with more male migrant workers than women owning a mobile phone, let alone a smartphone. However, despite this gap and the whole vaccination process being technology-driven, women migrant workers were found to be more aware of COVID-19 than their male counterparts, with most receiving at least one dose of the vaccine. Further understanding of the gendered nature of health decision-making among women migrant workers and within the households of migrant communities is a pressing need.

International Migrants

Telephonically conducting the survey, the study was able to tally the extent of accessibility to COVID-19 vaccines among international Indian migrants as well as concur their level of information reach and comprehension, as the country increasingly continues to receive and reintegrate migrant workers from abroad. Almost all the returnee respondents had a higher secondary education degree, worked as salaried employee and had a smart phone, which could account for their increased awareness of COVID-19, its symptoms and the related precaution and prevention methods.

This cohort had a better understanding of where and how to obtain information on the pandemic. Apart from the internet, news channels and newspaper, most approached hospital and health centre helplines for up-to-date information as well. However, the credibility of this information was not assessed. A good number of the respondents indicated social media and messaging platforms as their source of information as well.

Most were aware of the COVID-19 appropriate behaviour and strictly maintained the practice of social distancing, wearing of masks and regular use of hand sanitizers. All the respondents were completely vaccinated against COVID-19. Nevertheless, concerns were raised regarding the lack of effective communication and information dissemination on COVID-19 vaccination by their employers, which would have eased their access and apprehension to the vaccine.

Key Recommendations

Based on the findings of this study, the following key recommendations and action points for a migrant-sensitive and inclusive approach have been described to improve the COVID-19 vaccination reach and coverage amongst the most vulnerable mobile groups in India. These recommendations are designed for all entities, including government departments and ministries, the private sector, civil society organizations and researchers who work for the welfare and well-being of migrant workers.

- **Enhance Risk communication and community engagement:** The insights gathered from the survey can inform a range of specific and comprehensive outreach strategies to mobilize the demand for the COVID-19 vaccines. Focus group discussions with migrant worker communities could help deepen the understanding of information barriers, such as access to media, smart mobile technology, signal strength and electricity, the scope for preferred and trusted communication channels, and critical assessment of information gaps and needs. Therefore, a participatory approach with migrant workers to develop migrant-inclusive, accessible, culturally appropriate, linguistically adapted, literacy attuned, accurate, timely and user-friendly key messages and information to build vaccine confidence and demand, as well as counter misinformation. Regularly reviewing and updating communication plans and strategies to adapt to the evolving situation needs to be prioritised. Furthermore, policymakers and communication personnel should be encouraged to work with migration subject matter experts to develop and adopt a uniform public-health alert system and protocol.
- **Investigate more on women and gender-diverse migrants:** Clear evidence on vaccine-specific needs of different subgroups of migrant women, including pregnant and lactating women and gender-diverse people, is highly imperative. Adjunct to the national data on labour migration and other household data available on women migrants, baseline data on factors that determine their independent migration journey, occupational categories and conditions, their role as remittance senders, their vulnerability and exposure to different risks at various points of the mobility continuum, is vital to understand their health decision agency and the changing role of women in the family and the community in India. Women family members of migrant households remain mostly invisible in studies on migration and hence get overlooked in this campaign against the pandemic. The study peripherally touched upon this cohort's vaccination status. However, a more in-depth analysis of their circumstances during movement and the extent of participation in health decision-making and economic activity is, at present, urgently required. Such clear and credible evidence and knowledge would be needed to devise implementable measures and services that minimize their overall risk.
- **Building capacity on sensitivity:** The study depicts a fair degree of fear of discrimination and stigmatization related to COVID-19 infection among the migrant respondents. Training among

Women family members of migrant households remain mostly invisible in studies on migration and hence get overlooked in this campaign against the pandemic.

community health care workers, particularly within migrant-receiving states in India, on migrant sensitivities, avoiding stigmatization of migrant workers, understanding the various cultural and social needs, as well as building migrants' trust in the health and vaccination systems, and strengthening their capacity to address any issues raised by migrant workers should be prioritized to improve vaccine confidence and acceptance. Sensitivity training may also be extended to employers, recruitment agents and private sector stakeholders. Employers, in particular, are part of the solution to enhance accessibility to life-saving resources, revive the economy and build back better and resilient infrastructures to withstand the current and similar challenges in the future.

- **Leveraging the Contributions of Civil Society:** The vaccination programme implementation must integrate with civil society and grass-root level organizations with good outreach to migrant communities. Civil societies played a significant role in supporting migrants during the lockdowns, with the distribution of essential items to distressed migrants as well as gathering estimates and data on their circumstances and needs during their journey. The immense outreach of these entities with all categories and subgroups of migrant workers and their expertise calls for concerted efforts between civil societies and the government to regularly exchange knowledge and practices, thereby improving vaccine and vaccine information coverage.
- **Develop further understanding on migration and COVID-19 vaccination:** There is an urgent need to acquire a deeper

understanding of the perceived risks and benefits, the social processes and norms that drive and inhibit vaccination, precarity and exclusionary conditions, and practical factors (availability, ease and extent of access, service quality, respect from providers etc.) that overall influence decision-making. Such data supports advocacy efforts by and for migrant communities to ensure necessary services are in place to enable vaccination.

- **Population Mobility Mapping³¹:** To support resource allocation and strengthen the design and implementation of public health interventions, it is crucial also to understand the subtleties, dynamics and patterns of the mobility continuum (pathways of movement along points of origin, transit, destination and return). Generating a database of mapped migration clusters, disaggregated flow estimates, patterns of major routes, in addition to available in-country population statistics (census, registers and databases, demographic and health surveys) and defining the intersectional profiles of migrant and mobile population will contribute to scaling up vaccine procurement for evidence-informed allocation, facilitate deployment planning and capacity accordingly to address the needs of specific groups that may be vulnerable to COVID-19 outbreaks.
- **Inclusion of International and Returning Migrants:** As newer variants surface, vaccination mandates, information and availability change to adapt to the evolving situation. Therefore, credible sources of information on COVID-19 vaccination mandates and national programmes in target host countries could be part of the Pre-departure Orientation trainings (PDOT) for migrant workers who aspire to go abroad for jobs. Migrant Resource Centres could be excellent information hubs for migrant workers (both international and internal) to obtain accurate information, and hence, a range of specific communication activities that consider all the potential information barriers can be developed to enhance their access to credible sources of and knowledge on up-to-date information. More evidence is also required on the circumstances and challenges of returned migrant workers. There is a need for effective reintegration and resettlement initiatives, and COVID-19 vaccination outreach should be made a part of it.

³¹ <https://www.iom.int/sites/g/files/tmzbd1486/files/documents/IOM-Migration-Health-Population-Mobility-Mapping-Infosheet.pdf>

Annexures 1

1. QUESTIONNAIRE

COVID-19 Vaccination & Migrants – Leaving No One Behind

Factors behind vaccine accessibility, hesitancy, and acceptance amongst Migrants

Questionnaire

You are being requested to participate in a research study titled “COVID-19 Vaccination and Migrants- Leaving no one behind”. IOM has partnered with Chalo Network to carry out this study. The purpose of the research is to identify the significant gaps and barriers in vaccination coverage among migrant workers and the steps needed by the government and civil society towards overcoming the obstacles. If you agree to the term and participate in the study, you will be asked to verbally complete a questionnaire.

By giving your consent (selecting “yes”), you are indicating that you are at least 18 years old, have read and understood this consent form and agree to participate in this research study.

Yes, I agree to the terms and conditions

I disagree

For Researcher’s use

Assigned Number	
Interviewer’s code	
Name of enumerator	
City	

Please begin asking respondents the following questions:

Sl. No.	Question	Option	Rules
1. Personal information:			
1.1	Date of Birth:		Required*
1.2	Sex	<ul style="list-style-type: none"> • F • M • Others 	Required*
1.3 a	Place considered to be native (where most family members/spouse reside, which is left to return to the city) Block		Required*
1.3 b	Place considered to be native (where most family members/spouse reside, which is left to return to the city) District		Required*

Sl. No.	Question	Option	Rules
1.3 c	Place considered to be native (where most family members/spouse reside, which is left to return to the city) State		Required*
1.4 a	Place of current residence in the city? Block		
1.4 b	Place of current residence in the city? District		
1.4 c	Place of current residence in the city? State		
1.5	How long have been staying at the place of your current residence (mention in months)?		Only number entries allowed
1.6	How often do you return to the place considered to be native?	<ul style="list-style-type: none"> • More than twice a year • Twice a year • Only once a year • Once in 2-3 years • Once in 5 years 	
1.7	Marital status	<ul style="list-style-type: none"> • Single • Married • Separated/Divorce/Widowed • Unknown 	Required*
1.8	Highest education obtained	<ul style="list-style-type: none"> • Uneducated/ No education • Primary (Grade 1 to 5) • Secondary (Grade 6 to 10) • Higher secondary (Grade 11 and 12) • College 	Required*
1.9	Highest education obtained by spouse[sponaneous]	<ul style="list-style-type: none"> • Uneducated/no education • Primary(Grade 1 to 5) • Secondary (Grade 6 to 10) • Higher Secondary(Grade 11 and 12) • College/University 	Required*
1.10	Primary Occupation in the last 30 days	<ul style="list-style-type: none"> • Worked in household enterprise (self-employed) • Own account worker • Employer • Worked as helper in household enterprise • Unpaid family worker • Worked as regular salaried/ wage employee • Worked as casual wage labour • In public works 	Required*

Sl. No.	Question	Option	Rules
		<ul style="list-style-type: none"> • In other types of work • Did not work but was seeking and/or available for work • Attended educational institution • Attended domestic duties only • Attended domestic duties and was also engaged in free collection of goods (vegetables, roots, firewood, cattle feed, etc.), sewing, tailoring, weaving, etc. for household use • Rentiers, pensioners , remittance recipients, etc. • Not able to work due to disability • Others (including begging, prostitution, etc.) 	Required*
1.11	Where do you work? (address, city, state)		
1.12	Do you own a phone?	<ul style="list-style-type: none"> • Yes • No 	
1.13	Is it a smart phone or feature phone?	<ul style="list-style-type: none"> o Smartphone o Feature phone 	
1.14	Do you use internet on your phone?	<ul style="list-style-type: none"> o Yes o No 	
1.15	Are you suffering from any of the following medical conditions or co-morbidities?	<ul style="list-style-type: none"> o Diabetes o Heart diseases o Hypertension o Tuberculosis o Kidney disease o Hepatitis o Reproductive health problem o Respiratory infections o History of stroke o Others, please specify o None o Does not want to respond o If others, please specify 	Multiple responses
1.15a	Others		
1.16 a	Where were you when the first lockdown (25 March 2020-14 April 2020) was announced? (City)		Required
1.16 b	Where were you when the first lockdown (25 March 2020-14 April 2020) was announced? (district)		

Sl. No.	Question	Option	Rules
1.16	Where were you when the first lockdown (25 March 2020-14 April 2020) was announced? (state)		
1.16a	Please tell us what you did following the announcement of lockdown	<input type="radio"/> Relocated to my native place <input type="radio"/> Relocated to somewhere else <input type="radio"/> Stayed where I was <input type="radio"/> Others	Required
1.17a	Other		
1.18	Was your family residing with you then?	<input type="radio"/> Yes <input type="radio"/> No	
1.19	Did they relocate along with you during the lockdowns?	<input type="radio"/> Yes <input type="radio"/> No	
2. COVID-19 Awareness and knowledge			
2.1	Have you heard of a disease called COVID?	<input type="radio"/> Yes <input type="radio"/> No	
2.2	If yes, do you know what the symptoms of COVID-19 infection are?	<input type="radio"/> Yes <input type="radio"/> No	
2.2a	If yes, please tell us the symptoms of COVID-19 infections	<input type="radio"/> Fever <input type="radio"/> Cough <input type="radio"/> Difficulty in breathing <input type="radio"/> Loss of taste <input type="radio"/> Loss of smell <input type="radio"/> Any other symptoms, Specify: <input type="radio"/> Body ache <input type="radio"/> Headache <input type="radio"/> Don't know	
2.2b	Others		
2.4	Do you think you can get infected by the coronavirus?	<input type="radio"/> Yes <input type="radio"/> No	
2.5	How do you protect yourself from getting infected by the coronavirus?	<input type="radio"/> Don't know/Can't say <input type="radio"/> Wearing mask <input type="radio"/> Maintaining social distancing <input type="radio"/> Do not go out unless necessary <input type="radio"/> Wash hand/sanitize frequently <input type="radio"/> Others	
2.6	Where do you get all your information on the COVID-19 Pandemic?	<input type="radio"/> TV <input type="radio"/> Mobile Phones <input type="radio"/> Radio <input type="radio"/> Newspaper <input type="radio"/> Internet <input type="radio"/> Hospital/health centres	

Sl. No.	Question	Option	Rules
		<ul style="list-style-type: none"> o ASHA/Anganwadi/ANM o Don't know o Friends/Family 	
2.7	How often do you wear a mask at your place of work or when in public?	<ul style="list-style-type: none"> o Always o Sometimes o Rarely o Never 	
2.8	What are the precautions you take to protect yourself from the virus? [spontaneous]	<ul style="list-style-type: none"> o Use hand sanitizer after blowing your nose, coughing or sneezing o Wash hands and/or use hand sanitizer before and after caring for someone who is sick o Use hand sanitizer during and after work 	
2.9	Facilities provided by your employer?	<ul style="list-style-type: none"> o Masks/face shield o Soap and water o Soap and water and/or hand sanitizers o None 	
2.10	Do you have to spend out of pocket to obtain personal protective equipment (face mask, sanitizer, etc.) to protect against COVID-19?	<ul style="list-style-type: none"> o Yes o No 	
2.11	Do you maintain adequate social distancing at your workplace or when in public?	<ul style="list-style-type: none"> o Yes o No 	
2.12	Are there any barriers that prevent you from performing all the above-mentioned precautionary actions mandated for the protection against the transmission of COVID-19 disease?	<ul style="list-style-type: none"> o Yes o No 	
2.12a	If yes to the above question, mention the barriers that prevent you from performing the precautionary actions mandated for protection against transmission of COVID-19 Disease?	<ul style="list-style-type: none"> o Lack of awareness at the place of work o Lack of access to hand sanitizer or soap o Lack of access to protective equipment and mask at place of work o Inability to maintain social distancing because of nature of work o Discomfort because of continuous use of protective equipment and mask o Others, Specify 	

Sl. No.	Question	Option	Rules
2.12a(i)	Others		
2.13	Have you taken a test to diagnose for COVID (RAT and/or RT-PCR) before?	<input type="radio"/> Yes <input type="radio"/> No	
2.13a	If yes, please tell how many times you have done?	<input type="radio"/> Once <input type="radio"/> Twice <input type="radio"/> 3-5times <input type="radio"/> More than 5 times	
2.13b	If yes, what was the reason behind it?	<input type="radio"/> Voluntary testing on showing symptoms of COVID-19 <input type="radio"/> It was required at the workplace <input type="radio"/> Testing at railway station/ airport following travel <input type="radio"/> Testing because of inter-state/ inter-district travel <input type="radio"/> Any other, specify	
2.13b(i)	Others		
3. COVID-19 Infection			
3.1	Have you ever been infected by the coronavirus (COVID-19)?	<input type="radio"/> Yes <input type="radio"/> No	
3.2	If yes, when was the last infection	Calendar dates	
3.3	Has anyone in close proximity to you been infected by the coronavirus?	<input type="radio"/> Yes <input type="radio"/> No	
3.3a	If yes, how were the symptoms?	<input type="radio"/> Asymptomatic <input type="radio"/> Mild <input type="radio"/> Moderate <input type="radio"/> Severe	
3.3b	Where did the affected close associate isolate themselves?	<input type="radio"/> At home <input type="radio"/> At a government quarantine facility <input type="radio"/> Others	
3.3c	For how long were they quarantined?	<input type="radio"/> 1 week <input type="radio"/> 1-2weeks <input type="radio"/> 2-3weeks <input type="radio"/> More than 3 weeks	
3.3d	Did the affected person require hospitalisation?	<input type="radio"/> No hospitalisation <input type="radio"/> Hospitalisation of at least a week or less <input type="radio"/> Hospitalisation between 1-2 weeks <input type="radio"/> Hospitalisation of more than 3 weeks	

Sl. No.	Question	Option	Rules
3.4	If yes to 3.1, was any person you were in contact with diagnosed with COVID-19 following your infection to the best of your knowledge	<input type="radio"/> No <input type="radio"/> Yes, at source <input type="radio"/> Yes, at destination	
3.5	What treatment was taken to recover from the infection?	<input type="radio"/> No specific treatment <input type="radio"/> Treatment with OTC drugs given by the pharmacist <input type="radio"/> Medicine given by the doctor following OPD consultation <input type="radio"/> Ayurvedic/Unani medication <input type="radio"/> In-patient treatment in a hospital <input type="radio"/> Don't know/Can't say <input type="radio"/> Any other, specify	
3.5a	Others		
3.6	How soon following your diagnosis did you get back to work? [spontaneous]	<input type="radio"/> 1 week or less <input type="radio"/> 1-2 weeks (8-14 days) <input type="radio"/> 2-3 weeks(15-21days) <input type="radio"/> More than 3 weeks	
4.1 COVID-19 Vaccination			
4.1.1	Are you aware about COVID-19 vaccination program?	<input type="radio"/> Yes <input type="radio"/> No	
4.1.2	Are you aware that the COVID-19 vaccine is provided free of cost by the central government?	<input type="radio"/> Yes <input type="radio"/> No	
4.1.3	Are you aware that the COVID-19 vaccine is also available at private healthcare facilities, but will be charged?	<input type="radio"/> Yes <input type="radio"/> No	
4.1.4	Have you registered to get the COVID-19 vaccine?	<input type="radio"/> Yes <input type="radio"/> No	
4.1.5	Have you taken the first dose for COVID-19 vaccine?	<input type="radio"/> Yes, Covishield <input type="radio"/> Yes, Covaxin <input type="radio"/> Yes, don't know vaccine name <input type="radio"/> Scheduled, Covishield <input type="radio"/> Scheduled, Covaxin <input type="radio"/> Scheduled, don't know vaccine name <input type="radio"/> No	
4.1.5a(i)	If yes, where did you take your first dose?	<input type="radio"/> Government institution at both source and destination <input type="radio"/> Private institution at both source and destination <input type="radio"/> Government institution at source, private institution at destination	

Sl. No.	Question	Option	Rules
		<ul style="list-style-type: none"> o Private institution at source, government at destination 	
4.1.5a(ii)	When did you take your first dose/ when is the first dose scheduled for?	Insert calendar	
4.1.5a(iv)	If no, what are the reason?	<ul style="list-style-type: none"> o Cost of vaccine high to bear out of pocket o No vaccine availability o Goes against religious beliefs o Goes against cultural beliefs o Vaccine may not be effective o It has adverse long-term impacts o I will contract COVID after taking the vaccine o Not enough evidence that it works o Don't know/ Can't say o Other 	
4.1.5b	If 4.1.5 is answered yes, have you taken the second dose for COVID-19 vaccine?	<ul style="list-style-type: none"> o Yes, Covishield o Yes, Covaxin o Yes, don't know vaccine name o Scheduled, Covishield o Scheduled, Covaxin o Scheduled, don't know vaccine name o No 	
4.1.5b(i)	If yes, where did you take your second dose of vaccine?	<ul style="list-style-type: none"> o Government institution at both source and destination o Private institution at both source and destination o Government institution at source, private institution at destination o Private institution at source, government at destination 	
4.1.6	If yes to question no.3.1 How soon following your diagnosis did you take the COVID-19 Vaccine?	<ul style="list-style-type: none"> o Have not taken any COVID-19 vaccine till date o Within 3 months of diagnosis of COVID-19 o After 3 months of diagnosis of COVID-19 	

Sl. No.	Question	Option	Rules
4.1.7	Where do you get your information on the COVID-19 Vaccination program? [spontaneous]	<ul style="list-style-type: none"> o TV o News paper o Hospital/health centre o Internet o Asha/ Anganwari/ ANM o Don't know/ Can't say 	Multiple responses
4.1.8	Do you receive forwarded messages regarding information on COVID-19 vaccines on your digital device from non-government sources	<ul style="list-style-type: none"> o Yes o No 	Skip to 4.1.8 if no
4.1.8a	If yes, do you forward the same to your contacts?	<ul style="list-style-type: none"> o Yes o No o Don't want to tell 	
4.1.9	How much do you trust the forwarded messages that you received from non-government sources?	<ul style="list-style-type: none"> o A lot o A little o Do not trust o Can't say/ Don't know 	
4.1.10	How much do you trust the information on COVID-19 vaccination found on social media (i.e., Facebook)?	<ul style="list-style-type: none"> o A lot o A little o Do not trust o Can't say/Don't know 	
4.1.11	How much do you trust the information on COVID-19 vaccination found on News media outlets?	<ul style="list-style-type: none"> o A lot o A little o Do not trust o Can't say/Don't know 	
4.1.12	How much do you trust the information provided by health professionals (doctors, nurses, and community health care workers)?	<ul style="list-style-type: none"> o A lot o A little o Do not trust o Can't say/Don't know 	
4.1.13	How much do you trust the information on COVID-19 vaccination provided by friends and family??	<ul style="list-style-type: none"> o A lot o A little o Do not trust o Can't say/Don't know 	
4.1.14	Which is your preferred place for COVID-19 vaccination?	<ul style="list-style-type: none"> o Government institution o Private institution o No preference 	
4.1.14a	Why? [Spontaneous]	<ul style="list-style-type: none"> o Not applicable/Don't know o Cost of vaccine o Long waiting list o Ease of availability o Complicated procedure o Any other 	
4.1.15	Are you aware of where the nearest location to get the COVID-19 vaccine is?	<ul style="list-style-type: none"> o Yes o No 	

Sl. No.	Question	Option	Rules
4.1.16	Do you know at what age one can take the COVID-19 vaccine?	<input type="radio"/> Yes, 18+ <input type="radio"/> Yes, 21+ <input type="radio"/> Yes, any other <input type="radio"/> No	
4.1.17	Are you aware that you must receive a vaccination certificate after getting each dose of the COVID-19 vaccine?	<input type="radio"/> Yes <input type="radio"/> No	
4.2 Vaccine Acceptance			
(To be answered only by those who have taken at least one dose of the COVID-19 vaccine)			
4.2.1	Who motivated you to take vaccine?	<input type="radio"/> Self <input type="radio"/> Friends <input type="radio"/> Family members <input type="radio"/> Employer <input type="radio"/> Others	
4.2.2	Why did you decide to get the vaccine?	<input type="radio"/> Don't know/ Can't say <input type="radio"/> To prevent COVID-19 infection <input type="radio"/> Because my work place required it <input type="radio"/> Peer pressure <input type="radio"/> Persuasion by health staff <input type="radio"/> Got influenced by mass media <input type="radio"/> Any other, specify	
4.2.2a	Other		
4.2.3	How did you register for the vaccination?	<input type="radio"/> Registered through CoWIN/ Arogya Setu app <input type="radio"/> Walked in <input type="radio"/> Other	
4.2.3a	Did you share any identification docs for registration or during walk in?	<input type="radio"/> Yes <input type="radio"/> No	
4.2.3b(i)	If registered through CoWIN, did anyone else register for you on your behalf on the app?	<input type="radio"/> Yes <input type="radio"/> No	
4.2.3b(ii)	If yes, please mention who?	<input type="radio"/> Family member <input type="radio"/> Acquaintance <input type="radio"/> Employer <input type="radio"/> Contractor <input type="radio"/> Colleague <input type="radio"/> Others	
4.2.4	Did you face any obstacles while registering?	<input type="radio"/> Internet problem <input type="radio"/> Didn't receive OTP <input type="radio"/> ID issue <input type="radio"/> Others <input type="radio"/> No	

Sl. No.	Question	Option	Rules
4.2.5	Number of HH members	<ul style="list-style-type: none"> o 1-5 o 5-10 o More than 10 	
4.2.6	How many female household members are there in your family?	<ul style="list-style-type: none"> o 1-3 o 3-5 o 5-7 o More than 7 	
4.2.7	Did all the eligible male members in your family get fully vaccinated?	<ul style="list-style-type: none"> o Yes o No o Don't know/Can't say 	
4.2.8	Did all the eligible female members in your family get fully vaccinated?	<ul style="list-style-type: none"> o Yes o No o Don't know/Can't say 	
4.2.8a	If no, what was the reason	<ul style="list-style-type: none"> o Their turn did not come o Lack of awareness o Male members were prioritized o They could not get time off o Other 	
4.2.9	Did all the individuals who are identified by a third gender in your family get fully vaccinated?	<ul style="list-style-type: none"> o Yes o No o No third gender 	
4.2.11	Did you find it difficult to communicate or understand vaccine related instructions/ information while at the vaccination center?	<ul style="list-style-type: none"> o Yes o No 	
4.2.12	Did you face any form of discrimination or ill-treatment from health personnel at the vaccination center?	<ul style="list-style-type: none"> o Yes o No o Can't recall/ Don't remember 	
4.2.13	Did you get any side effects after taking the vaccine?	<ul style="list-style-type: none"> o Only after first dose o Only after second dose o After both doses o No side effect 	
4.2.13a	If yes, to your knowledge did that affect the decision of those around you (family members and/or colleagues) to take the vaccine?	<ul style="list-style-type: none"> o Yes o No o Don't know 	
4.2.14	Did you have to miss work or experience a reduction in your daily wages due to missed work to get the vaccine?	<ul style="list-style-type: none"> o Yes, for first dose o Yes, for second dose o Yes, for both dose o No 	
4.2.15	Have you personally advised people on vaccine?	<ul style="list-style-type: none"> o Asked them to take it o Asked them to not take it o No advice 	

Sl. No.	Question	Option	Rules
4.2.15a	If no, what was the reason behind your advice?	<ul style="list-style-type: none"> o Can't say/Don't know o I think vaccines do not work o I think they have adverse health impact o Because I developed side effects after getting vaccine o Bad experience at the vaccination centre o Any other 	
4.2.16	Did you receive a Vaccine certificate or any form of receipt showing proof of vaccination after taking the COVID-19 vaccine?	<ul style="list-style-type: none"> o Yes, for first dose o Yes, for second dose o Yes, for both doses o No receipt/ certificate 	
If identified as female or other, continue to answer the further questions regarding acceptance.			
4.2a	Who took the decision for you to get the vaccine (self or others)?	<ul style="list-style-type: none"> o Self o Family members o Friends/ acquaintances o Others 	One response
4.2a(i)	If answered Self to the above question, was there any resistance from family members you had to overcome?	<ul style="list-style-type: none"> o Yes o No o Don't remember 	
4.2b	Were you vaccinated with the male members of your HH?	<ul style="list-style-type: none"> o No, male members got vaccinated o Yes o No I got vaccinated first 	
4.2c	Were you able to go to the vaccination center by yourself?	<ul style="list-style-type: none"> o Yes o No, required a companion o Don't remember 	
4.2d	Were you concerned about your physical safety when travelling to and while at the vaccination center, if travelled by yourself?	<ul style="list-style-type: none"> o Yes o No o Don't remember 	
4.2e	Were you concerned about your physical safety when travelling to and while at the vaccination center, (despite having a companion)?	<ul style="list-style-type: none"> o Yes o No o Don't remember 	
4.3 Extent of Accessibility (To be answered only by those who have not or choose not to take the first and/or second doses of the COVID-19 Vaccine)			
4.3.1	Do you know where you can take the COVID-19 vaccine?	<ul style="list-style-type: none"> o Yes o No 	

Sl. No.	Question	Option	Rules
4.3.1a	If yes, how did you access the information. [spontaneous]	<input type="radio"/> TV <input type="radio"/> Newspaper <input type="radio"/> Hospital/health centre <input type="radio"/> Internet <input type="radio"/> Asha/ Anganwari/ ANM <input type="radio"/> Don't know/ Can't say	Multiple responses
4.3.1b	Please state the locations	<input type="radio"/> Government Institution <input type="radio"/> Private Institution <input type="radio"/> Both government and private institutions <input type="radio"/> Any other	
4.3.2	Do you have access to accurate and reliable information in languages that you can read and/or understand through the above-mentioned ways?	<input type="radio"/> Yes <input type="radio"/> No	
4.3.3	Do you understand the information on the COVID-19 vaccine presented to you?	<input type="radio"/> Yes <input type="radio"/> No	
4.3.4	Do you know how to register for the COVID-19 Vaccine?	<input type="radio"/> Yes <input type="radio"/> No	
4.3.5	Have you attempted to get registered or walked into a health facility to get the COVID-19 vaccine?	<input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> Can't remember	
4.3.6	Did the lack of an identification document prevent you from registering and/or getting vaccinated?	<input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> Don't know/ Can't say <input type="radio"/> Can't remember	
4.3.7	Did you download the CoWIN/ArogyaSetu App	<input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> NA (no smartphone)	
4.3.7a(i)	Did you get registered for the administration of the COVID-19 vaccine by yourself?	<input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> Can't remember	
4.3.7b(i)	If yes to 4.3.7a, Is the process of registration through the CoWIN/ArogyaSetu App user-friendly?	<input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> Don't know/ Can't say	
4.3.7b(ii)	If yes to 4.3.7a, Is the process of registration through the CoWIN/ArogyaSetu App time consuming?	<input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> Don't know/ Can't say	
4.3.8	Is there a vaccine availability issue in the clinics around your area of current residence?	<input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> Don't know/ Can't say	

Sl. No.	Question	Option	Rules
4.3.8.a	If yes, how many times have you attempted to check for the availability of the COVID-19 vaccine?	<ul style="list-style-type: none"> o 1-5 times o 5-10 times o More than 10 times 	
4.3.9	Do you have the option to pick between government (free of charge) or private facilities to get the COVID-19 vaccine?	<ul style="list-style-type: none"> o Government facility o Private facility o No preference o Don't know/ Can't say 	
4.3.9.a	Please tell us your reason for your preference:	<ul style="list-style-type: none"> o Cost of vaccine is less o Don't have to stand in long waiting list o Ease of availability o less complicated procedure o Not applicable o Any other o Don't know/ Can't say 	Multiple responses
4.3.10	How far is the Government-run COVID-19 vaccination center from your place of residence in the city?	<ul style="list-style-type: none"> o Walking distance o Less than 1 km o 1-2 km o 2-5 km o More than 5 km o Don't know/ can't say 	
4.3.11	Do you have the transportation means to reach the Government-run COVID-19 vaccination center?	<ul style="list-style-type: none"> o Own vehicle o Public transport o Any other o Do not have transportation means 	
4.3.12	Do you have to pay out of pocket to get the vaccine?	<ul style="list-style-type: none"> o Yes, for first dose only o Yes, for second dose only o Yes, for both doses o No 	
4.3.13	How far is the private COVID-19 vaccination center from your place of residence?	<ul style="list-style-type: none"> o Walking distance o Less than 1 km o 1-2 km o 2-5 km o More than 5 km o Don't know/ can't say 	
4.3.14	Do you have the transportation means to go to the private COVID-19 vaccination center?	<ul style="list-style-type: none"> o Own vehicle o Public transport o Other o No transportation means 	
If identified as female or other, continue to answer the further questions regarding accessibility			

Sl. No.	Question	Option	Rules
4.3a	In your household, who takes the decision to vaccinate those over the age of 18 in the family?	<ul style="list-style-type: none"> <input type="radio"/> Me <input type="radio"/> Head of the family <input type="radio"/> Male member of the family <input type="radio"/> Others 	One response
4.3b	Are you concerned about your physical safety when going by yourself to take the vaccine?	<ul style="list-style-type: none"> <input type="radio"/> Yes <input type="radio"/> No 	
4.3c	Are you avoiding taking the vaccine due to concerns that the time taken and the possibility of side-effects may prevent you from providing care for your children, elderly, and other dependents for a few days?	<ul style="list-style-type: none"> <input type="radio"/> Yes <input type="radio"/> No 	
4.3d	Are there any other obstacles that prevent your access to the COVID-19 vaccines	<ul style="list-style-type: none"> <input type="radio"/> Yes, peer pressure for not taking vaccine <input type="radio"/> Yes, Fear of adverse effects <input type="radio"/> Yes, Fear of the complicate procedure <input type="radio"/> Yes, Have to take time off from work <input type="radio"/> Yes, others <input type="radio"/> No obstacle 	

4.4 Vaccine hesitancy

(To be answered only by those who have not or choose not to take the first and/or second doses of the COVID-19 Vaccine

4.4.1	If the COVID-19 vaccine were offered to you today, would you choose to get vaccinated?	<ul style="list-style-type: none"> <input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> Can't say/ Don't know 	
4.4.2	Do you trust that the COVID-19 vaccine is effective against the COVID-19 virus?	<ul style="list-style-type: none"> <input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> Can't say/ Don't know 	
4.4.3	Is there anyone in your family or social circle who has had serious side effects after receiving the vaccine?	<ul style="list-style-type: none"> <input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> Don't know/ Can't say 	
4.4.4	Are you concerned regarding the vaccine having side effects post-administration?	<ul style="list-style-type: none"> <input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> Don't know/ can't say 	
4.4.5	What are the side-effects you are concerned about after taking the vaccine?		
4.4.6	Do you trust the skills of the healthcare professional in administering the vaccine at the vaccination centre?	<ul style="list-style-type: none"> <input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> Don't know/ can't say 	

Sl. No.	Question	Option	Rules
4.4.7	Do you believe the female members of your household should receive the COVID-19 vaccine?	<ul style="list-style-type: none"> o Yes o No o Don't know/ can't say 	
4.4.7a	If no, why?		
4.4.8	Would you take the vaccine if an incentive is given?	<ul style="list-style-type: none"> o Yes o No o Don't know/ Can't say 	
4.4.9	.Are you concerned you wouldn't be able to access treatment due to the overburdened health systems?	<ul style="list-style-type: none"> o Yes o No o Don't know/ Can't say 	
If identified as female or other, continue to answer the further questions regarding hesitancy.			
4.4a	Are all the female members of your household vaccinated?	<ul style="list-style-type: none"> o Yes o No o Don't know/ Can't say 	
4.4a(i)	If no, why?	<ul style="list-style-type: none"> o They hardly go out of home and hence, there is less chance of infection o Men are main income earners and hence, should be preferred o Any other o Don't know/ Cannot say 	Multiple responses
4.4b	Do you believe the vaccine is safe for all women to take?	<ul style="list-style-type: none"> o Yes o No o Don't know/ Can't say 	
4.4b(i)	If not, why?	<ul style="list-style-type: none"> o Adverse long-term impacts o Post-vaccine illness concerns o Any other o Don't know/Can't say 	Multiple responses
4.4c	Are there any other factors that contribute to your hesitancy to take the COVID-19 vaccine	<ul style="list-style-type: none"> o Yes o No o Don't know/Can't say 	
4.4c(i)	If yes and willing, please tell the reason.	Open text	

Annexures 2

Clusters Sampled In Each City (Internal Migrants)

State	City	Rules
Karnataka	Bangalore	Peenya, Laggere, Lakshmi Devi Nagara, Nandini Layout, Doddabidarekallu, Heegganahalli, Nagarbhavi, Bommanahalli
Maharashtra	Pune	Karvey Nagar, Warge Bridge, Nigdi, Swarget, Bhosri, Dange Chowk, Shivaji Nagar
Gujarat	Surat	Katargam, Ved Road, Kosad, Adajan, AnuwradDwar, Jahangirpura
Delhi NCR	Delhi NCR	Sector 58 Noida, Sant Nagar, Janta Vihar, PulpahaladpurTughlagabad, Madipur, AzadpurSabji Mandi, Mahipalpur labour chowk, Chawla Bus Stand, Najafgarh, Shadipur metro station, Okhla SabjiMandi, BhangalLabour Chowk, Moti Nagar, Wazirabad sector 52, Gurgaon, Molar band chowk near Badapur
Kerala	Kochi	Kaloor- Kathrikadavu, Vytilla, Vypin, Broadway, Thevara, Palarivattom, Thiruvankulam, Puthenkurish, Edapally, Kochi
Telangana	Hyderabad	NBT Nagar, LBS Nagar, Seetaphal mandi, Vadodara Basti, Beema Maidan, Gowtham Nagar, Kachiguda, Old Patgadda, Prakash Nagar, Yakutpura
Tamil Nadu	Tiruppur	Avinashi, New tiruppur, Sevur, Perumanallur, Pongavelli, Pongupalayam, Devampalayam
West Bengal	Kolkata	Shialdah station, Dhakuriya, Baligonjkasba, Bidhannagar, Baghajatin, Jadavpur, Metropolitan, Shyambazar, Kolkata station, Dumdum, Subhas Nagar, Dharmatala, Bhangur hospital, Mahatma Gandhi metro gate, Bashdroni, Tollygunge, Posta Bazar, Bara bazar, Mahatma Gandhi Road, Belgharia, Dalhousie
Uttar Pradesh	Kanpur	Kidwai Nagar, Fazalganj, Govind Nagar, Mall Road, Panki Road, DadaNagar, Central Railway Kanpur, G.T. Road, Arya Nagar, Barra, Yashoda Nagar, Kalpi Road, Ashok Nagar, Khalasi Line, VIP Road
Punjab	Ludhiana	ChhotiHaibowal, Badi Hainowal, Civil lines, Ghanta Ghar, Railway Station, Samrala Chowk, Punjab Agricultural University, Wave Mall, Moga Road, Pratap Nagar, Bus Stand, Kitchlu Nagar, Near Chauda Bazar, Sherpur Chowk, Basti Jodhewal, Industrial Area, Chandigarh Road, Near PEDA Biogas Power Plant, Baba Deep Singh Nagar, Malerkotla Road

Annexures 3

Audio-Visual Consent Form



IOM AUDIO-VISUAL CONSENT FORM

The International Organization for Migration (IOM) is asking for your consent before collecting your personal information.

Who are we?

IOM is a United Nations organization working on migration issues. IOM works to help ensure the orderly and human management of migration for the benefit of all. It does so by providing services and advice to governments and migrants.

Why are we collecting personal data about you?

- IOM collects your personal data to better understand unique aspects of migration in order to inform project design and implementation, document and promote IOM’s work and increase knowledge and understanding of migration issues, through public media or fundraising campaigns, for example.
- If you allow it, we may publicize the information you provide, or parts of it, in IOM and external media (e.g. publications, reports, websites, social media accounts).

What personal data are we collecting?

We may collect any of the following that you choose to share with us. The indicated types of data will hereinafter be referred to as “Recordings”:

- Biographical details (you can choose not to use your real name)
- Image
- Video
- Voice
- Your story, as you would like to share it

You can choose which information about you we can publicize. You can choose, for example, to hide your face and/or not use your real name or other personal details. Your information will be securely stored on IOM servers.

Where will these Recordings be shown?

The Recordings may be displayed in publications, promotional material, brochures, reports, articles, presentations, future exhibitions and display on the websites of IOM and other third-party electronic format media outlets.



We are asking for your consent, but you do not have to provide it.

- We will not make any Recordings of you unless you agree to it.
- You can choose not to give any personal data at all or to give some personal data.

What are your rights?





- You have the right to request to see a copy of any Recordings you have provided us, including corrected, deleted and unpublished information.
- You can ask us to change or delete any Recordings you have provided us at any time. IOM will comply with your requests for the media that it controls but it might not be able to do so for external media that are not controlled by IOM.
- If you would like to make any requests or complaints about the way IOM is handling your personal data, you can contact the local IOM mission _____ or email ocu@iom.int

Do you consent to the Recordings?

If you consent to the Recordings, please confirm the following:

- I understand the information about my participation, and I have asked any questions I had about it.
- I consent to having the Recordings being shared publicly. I understand I can change my mind at any time and who I can contact if I change my mind.
- I acknowledge that I am not receiving any payment by IOM for the use of the Recordings.
- I understand my rights in relation to my personal data and how I exercise them

I consent to the inclusion of the following in the Recordings:

MY VOICE	MY FACE IMAGE	MY BODY IMAGE	MY REAL NAME
			
<input type="checkbox"/> YES <input type="checkbox"/> NO	<input type="checkbox"/> YES <input type="checkbox"/> NO	<input type="checkbox"/> YES <input type="checkbox"/> NO	<input type="checkbox"/> YES <input type="checkbox"/> NO

I, _____ [name of individual or parent / legal guardian] hereby give my consent for IOM to collect personal data in the Recordings as described.

 [Name]
 (Signature or mark of individual or parent/legal guardian)

 [Name]
 (Signature or mark of the child)
 [if applicable]*

* NOTE: The child's agreement is also necessary where the child's age and maturity reasonably so dictate. The consent of the parent or legal guardian must also always be obtained. If the child declines to give his/her own agreement, no Recordings shall be made notwithstanding the consent granted by the parent or legal guardian.

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