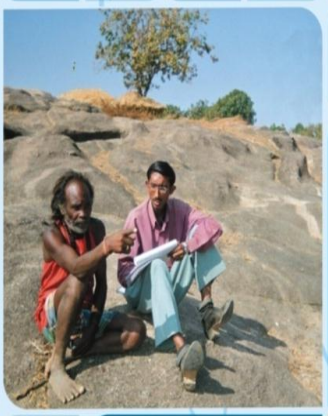
Migration- Threat to Polio Eradication

A Report

Submitted to

UNICEF

INDIA



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Mapping Progress in Development Sector

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KEY INDICATORS - TABLE

Indicator/Respondent Category	Nomads		Slum Dwellers		Brick Kiln Worker		Construction Worker		Total	
Socio-economic profile										
Type of House-Kachcha	6.9		13.6		74.9		56.1		37.9	
Social group-SC	39.6		33.2		48.1		37.8		39.7	
Average Family size at current location	4.56		4.34		4.50		4.15		4.39	
	M	**F**	**M**	**F**	**M**	**F**	**M**	**F**	**M**	**F**
Percentage of children in the age group 3-5 years going to AWC	7.2	6.7	13.8	15.0	6.4	3.3	12.2	8.3	9.7	8.2
Percentage of children in the age group 6-14 years going to school	37.0	33.9	55.2	57.5	16.8	21.8	27.9	23.9	33.4	34.6
Educational status of parents in the surveyed households- Illiterate	75.3	62.9	54.8	35.1	82.9	60.1	68.6	48.6	70.4	51.6
Migration Status of surveyed Households										
Average duration of residence at current place(in months)	120.3		140.6		31.8		39.6		83.0	
Water Sanitation and Hygiene										
Source of drinking water - Tap	67.8		67.1		4.6		42.4		45.4	
Treatment of water- No treatment	96.9		91.0		98.2		93.1		94.8	
Type of toilet- Open Defecation	63.7		30.3		68.5		43.4		51.5	
Incidence of Diarrhoea	19.3		23.4		16.6		14.4		18.4	
Treatment of Diarrhoea- given ORS solution	29.3		44		38.5		25		35.2	
Place of Delivery										
Place of delivery-home deliveries	65.0		49.3		66.5		57		59.6	
Reason for home delivery-did not find it necessary	79.4		61.5		66.5		70.5		70.5	
Breast feeding										
Awareness about Breast Feeding-Immediately after birth to feed yellowish thick breast milk	58.3		51.9		45.9		56.2		53.5	
Colostrum feeding practices	74.1		60.4		56.5		65.7		64.6	
Duration of exclusive breast feeding (in days)	37.8		33.7		43.6		35.7		37.4	
Immunization										
Awareness about routine immunization	71.2		84.8		79.5		84.8		80.1	
Awareness about benefits of RI-										
It prevents children from killer diseases	45.8		56.4		40.5		52.4		49	
It helps in preventing the spread of diseases	*45.1*		*35.5*		*44.4*		*40.6*		41.2	
Possess RI Card - card shown	14.4		28.5		15.3		11.8		17.5	
Complete Immunization*	30.2		44.0		22.9		22.2		32.8	
Counseling by service provider about different vaccines	53.2		68.1		64.4		75.3		65.2	
Person mostly accompanying child for RI- Mother	79.9		71.4		70.1		63.7		70.5	
Reason for preferring a facility- nearly located	64.7		63.1		53.8		52.3		58.0	
Polio										
Polio-paralysis of legs	53.2		50.1		41.7		49.6		48.7	
Polio can affect most to- children less than 5 years	29.6		36.8		27.1		31.6		31.3	
Polio spread by- poor sanitation conditions	17.7		19.8		15.3		11.3		16.0	
Through human faeces	6.9		7.7		5.9		5.4		6.5	
Prevention of polio	65.6		63.8		60.6		75.3		75	
Curability of polio	53.5		46.5		50.9		71.0		55.5	
Family's supportive role for administrating polio drops	97.4		92.0		96.4		96.9		65.7	

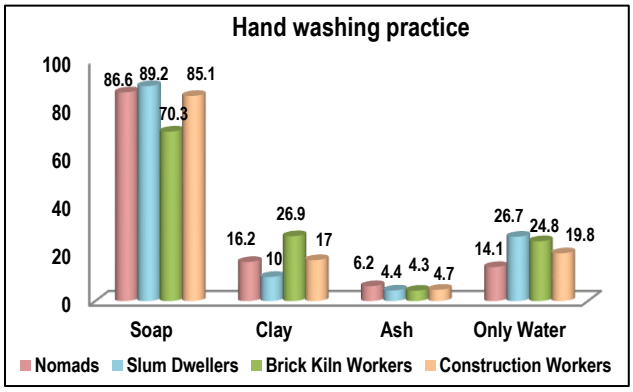
*Based on the number of children aged 9-59 months whose RI card were shown

KEY INDICATORS – CHART

SOCIAL ECONOMIC PROFILE

- Occupation- in brick kiln and construction workers category, in majority of cases both the parents were engaged in same occupation. i.e. at brick kiln and construction site respectively. Nearly half (48 percent) of the women among nomads and three-forth (74 percent) in slum dwellers were house wives. In the men among nomads nearly one-third were hawker/vendor while three major occupations as reported by slum dwellers were Auto Driver/Rickshaw Puller (17.9%), factory labour (13.5%) and Petty trade/ Small shop (12.5%).
- Type of House-Majority of brick kiln and construction workers (75 and 56 percent respectively) were staying in kachcha houses, where as nearly half of the slum dwellers were staying in semi-pucca houses and more than 80 percent of nomads were staying in the structures made up of tent/bamboo/polyethene.

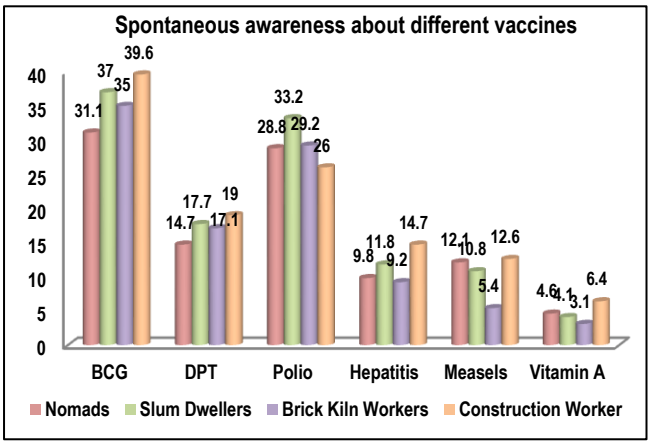
HEALTH, SANITATION AND HYGIENE



- Among the respondents who reported of washing hands with soap, more than 90 percent does the same after defecation. However, hand washing with soap at other occasions was found very low.

IMMUNIZATION

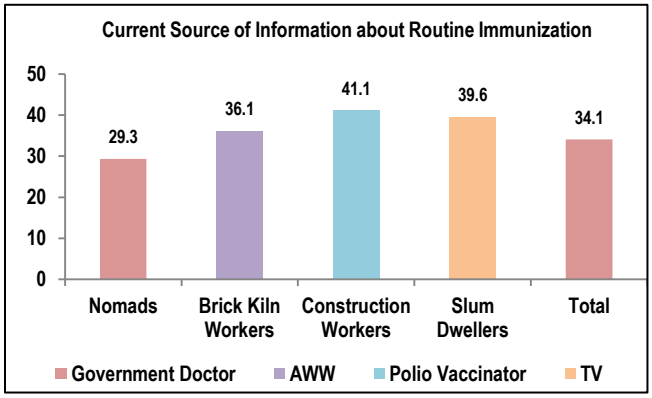
- Spontaneous awareness for all the vaccines was less than 40 percent across all the four categories. Maximum level of spontaneous awareness was found to be for BCG followed by polio



PREFERRED FACILITY FOR IMMUNIZATION

- District/municipal hospitals are most preferred by nomads and construction workers whereas UHPs are most preferred by slum dwellers while AWW are most preferred by brick kiln workers to get their child immunized.

SOURCE OF INFORMATION



- Top preferred source to get information about RI was vaccinator for nomads and construction workers, whereas Television was most preferred by slum dwellers and AWW by construction workers.
- Top current as well as preferred source of information about Polio was Vaccinator universally across all the four categories.

EXECUTIVE SUMMARY

BACKGROUND

To provide complete immunization for the seven preventable diseases including Polio in the migrant population-slum dwellers, nomads, brick kiln workers and construction workers, is still a mile stone to be reached for Polio Eradication Program of India. These groups are not only susceptible to polio virus due to their living conditions but can also work as a carrier to spread the virus in the population residing in the areas where they migrate.

In order to assess the awareness and practice about child Immunization against seven preventable diseases including polio among high risk groups for Polio (brick kiln workers, construction sites workers, nomads and slum dwellers, **CMS Social** undertook a research study on behalf of UNICEF India covering five polio non-endemic states, namely Delhi, Haryana, Punjab, Maharashtra and West Bengal.

The broad objectives of the study are to know the level of awareness and practices related to Routine Immunization and Polio Vaccination; to understand the migratory pattern of these groups and to determine new methods of establishing communication interventions with these high risk groups.

The study design was a mix of quantitative and qualitative methods. Structured tools to interview the families of four categories and In-depth interview and FGD guidelines for service providers (ANM/AWW/ASHA) and community/opinion leaders; to understand community's perspective about Polio and Routine Immunization along with other related issues.

At family/household level, specific information about immunization of the youngest child (reference child aged 0-59 months) in the family along with awareness and practices related to personal hygiene, breastfeeding and on diarrhea management along with information on basic socio-economic is gathered from either father or mother of the child.

The sample is selected from a state master list provided by UNICEF/NPSP. The list is a compilation of OPV beneficiary families under each of the four migrant/respondent categories covered under the study in each state. The sample respondents comprised mother/father of the children in the age group of 0-59 months. In all 1558 families/households were surveyed across all the four categories. To have a representative sample from each state, the sample was uniformly distributed however due to non-availability of brick kiln workers in Delhi and nomads and construction workers in West Bengal, the required sample was compensated from other states. For qualitative data collection 20 group discussions (FGDs) were conducted across all the five states. One FGD in each respondent category was conducted exclusively with the female groups. 33 in-depth interviews (IDIs) were conducted across five states; of which 13IDIs were conducted with ANM/ASHA/AWWs and 8 with polio vaccinators while 7IDIs were conducted with opinion leaders and 5 were conducted with leaders/*Pradhan* of respective community.

The data collection was done between April 24 and May 22, 2012.

KEY FINDINGS

HOUSEHOLD PROFILE

***Family size*:** Out of the surveyed 1558 respondents, the average family size was 4.39 with highest in nomads (4.56) and lowest in construction workers category (4.15).

Educational Status: Illiteracy rate is high across respondent categories; majority of mothers (70%) as well as fathers (52%) of the reference children are illiterate. More proportion of Slum dwellers and construction workers were found to have studied up to middle as compared to brick kiln and nomads

Similarly percentage of children aged 3-5 years going to Anganwadi Centre (AWC) for early childhood schooling is very low among all the categories. Due to almost permanent nature of settlement, the percentage of boys and girls going to an AWC was highest in slum dwellers (14 and 15 percent respectively) and it was lowest among brick kiln workers as they stay at the site for around 5-6 months in a year and therefore are not registered with any AWC.

Educational Status of children aged 6-14 years was also not encouraging. Due to migrant profile, the situation was dismal in case of brick kiln and construction workers categories; nearly half of the children in this age group in slum dwellers category are going to school.

Occupational status of parents of reference child shows that in brick kiln and construction categories, both the parents are engaged in the same occupation i.e. in brick making and as construction workers. Among nomads, around 35 percent of the fathers are hawkers/vendors followed by around 20 percent who are engaged in occupations such as cobbler, carpenter, barber and blacksmith. The mothers of the reference child in the nomad category are mostly housewives (48%). In the slum dwellers category, around 18 percent of fathers are auto-rickshaw drivers followed by factory labour (14%) and petty traders/shopkeepers (12%). Nearly three-fourth of the mothers of the reference child in slum dwellers category are housewives

***Religion and Social Group*:** Among the surveyed households, 82% are Hindus followed by Muslims (16%). Nearly 40% percent of the respondents belong to Scheduled Caste while another 34 percent are from Other Backward classes (OBC).

MIGRATION PATTERN

*T*he average duration of stay at the current place and city varies from one respondent category to another. The average duration of stay of the families staying in the slums at the current location was approximately 9 years while in the city/district was approximately 12 years. Unlike the characteristics of a nomadic tribe, in nomad category, the average duration of stay of the families at the current location was found to be approximately 7 years and in the city it was around 10 years.

On the other hand the average period of stay of the brick kiln workers at the current location is around 1 year and in the city it is around two and a half years. In the case of construction workers the average period of stay at the current location is around one and a half years and in the present city it is around 3 years.

A sizeable percentage of families (around 45%) belong to Uttar Pradesh and Bihar; among nomads, the percentage are belonging to Rajasthan is higher (27%).

On reasons for migrating from their native place, nearly 80 percent of brick kiln and construction workers reported better wage rates as the reason to migrate from native place.

Nearly three-fourth of the brick kiln workers due to the seasonal nature of their work, regularly go back to their native place during rainy season; around one-third of construction workers also visit their native place at least once in a year. More than half of the nomads and slum dwellers reportedly have no fixed schedule to visit their native place.

Average duration of stay during the visit to native place is around 2 months; highest is among brick kiln workers (3.8 months) followed by construction workers (2.4 months).

LIVING CONDITIONS

***Type of Housing*:** Most of the families are living in kuchcha houses; among nomads around 83% are living in houses made of tent/bamboo/plastics while in the slum dwellers category, around 48 percent families are living in semi-pucca houses.

***Source of drinking water*:** For a little more than half of the respondent families, the main source of drinking water is Tube well/Hand pump followed by 45 % of the families mentioning piped water/ tap. For more than two-third of the families in slum dwellers and nomads categories, the main source of drinking water is tap while more than 90% of brick kiln workers and more than 50% of construction workers get the drinking water from hand pump/tube well.

On *treatment of water* before using it for drinking purpose, the study findings show that more than 90 percent of respondent families do not treat water.

Open defecation is still practiced by more than half of the respondent families while around one-fourth of the families use public toilet. Noticeably, nearly two-third of the nomads and brick kiln workers (64% and 67%t respectively) go for open defecation followed by 44 percent of families in construction workers category reporting the same.

***Garbage disposal*:** Around three-fourth of the respondent families among nomads, brick kiln and construction workers reportedly dump the garbage immediately outside/backyard of the house; among slum dwellers too the percentage of families throwing household garbage just outside their homes is nearly half.

HYGIENE- KNOWLEDGE AND PRACTICE

***Handing Washing*:** On importance of washing hands with soap, nearly 47 percent of the families said that it kills germs, nearly 44 percent of the respondents are aware that diarrhoea can occur because of not washing hands with soap.

More than 80 percent of the respondents among nomads, slum dwellers and construction workers categories reported using soap for hand washing at one occasion or the other. A significant percentage of brick kiln workers (26%) reportedly use clay for washing hands.

Though more than 90 percent of the respondents informed using soap for washing hands after defecation, on other occasions the percentage using soap for washing hands is around one-third or even less.

HEALTH CARE RELATED PRACTICES

***Preferred health facility*:** Nearly two third of the respondents prefer private practitioner/facility for treatment of general ailments. However during delivery of child, government health facility is preferred by the respondents.

***Delivery of Youngest Child*:** Majority of the deliveries of youngest (reference) child is home delivery, however, it is better in case of slum dwellers category where a little more than half of delivery of the reference child was institutional delivery; in case of construction workers, the percentage of institutional delivery is around 43%. Reasons cited for preferring home delivery are 'they did not find it necessary' and 'due to money constraint'.

***Colostrum and Breast Feeding*:** Nearly half (53%) of the mothers of the reference child across all the categories are aware that an infant should be breast fed immediately after birth to feed the thick yellowish breast milk. On their practice, two-third of the mothers across all the categories informed that they had fed the colostrums to their youngest child; the percentage was highest among nomads (65%) and lowest among brick kiln workers (56%).

The most prominent reason cited by nearly two third of the women, who did not fed colostrums to their youngest child across all the four categories is '*colostrum is considered dirty*'. Noticeably, nearly 18 percent of the women among brick kiln workers also reported that their '*relatives were against feeding colostrum to the child*'. The average duration of breast feeding is around 7 weeks.

***Diarrhoea*:** A little more than 18 percent of families across four respondent categories reported the youngest child having diarrhoea in the last two weeks, prior to the survey. Highest number (24%) of diarrhoea cases were reported by slum dwellers follwed by nomads (19%).

A little more than three-fourth of the respondent families with diarrhoea cases gave tablet/syrup to the child to stop the incidence of diarrhoea. Solution made from ORS packet was also provided by around 35 percent of the families to the child. ORS use was reported by highest percentage of families from slum dwellers (44%) followed by brick kiln workers (39%) categories.

ROUTINE IMMUNIZATION (RI)

Awareness about RI: Nearly 80 percent of the respondent families were aware about or have heard of Routine Immunization and more than half of the slum dwellers and construction workers are aware that it prevents children from killer diseases.

Not much difference was found in the spontaneous awareness about all the vaccines across all the four categories. Slum dwellers are having higher level of spontaneous awareness about BCG (33%) and Polio (37%), however, for other vaccines i.e. DPT (19%), Hepatitis (15%), Measles (13%) and Vitamin A (6%) higher level of awareness was found in construction workers. Among the respondents who were not at all aware about the vaccines, highest proportion belonged to nomads for all the vaccines.

Immunization Card**:** To know the immunization status of the reference child, respondents were asked to show the immunization card. Out of 1558 respondent across all the four categories, 18% (273 families) could show the immunization card, among these 29 percent were from slum dwellers. Among the children of age group 9-59 months whose card were shown nearly half were from slum dwellers category, followed by around 35% of nomads.

Immunization Status**:** The overall percentage of fully immunized children, i.e. children who have received 1 BCG+3 DPT+3 POLIO+3 Hepatitis+ 1 Measles+ 1Vitamin A doses/shots, is less than one-third out of 189 children; highest among slum dwellers (44%).

The most prominent *reason cited for not giving the required vaccines* as per age was lack of awareness about timing of vaccine across all the four categories. However, a high percentage of the families in nomads (40%) reported unawareness about vaccines also.

Preferred facility for RI**:** Government hospitals and dispensary are most preferred places for nomads and construction workers to get their child immunized. Slum dwellers preferred urban health post/dispensary while Anganwadi Centre is preferred by brick kiln workers for immunizing their child. The most prominent reason for preferring a particular facility was its proximity.

Current and Preferred Source of Information**:** The current source of information for RI in the nomads is government doctor; most of the slum dwellers get information from TV. For brick kiln workers it is AWW and for construction workers it is vaccinator.

Among the preferred source of information are Polio Vaccinators and government doctors (nomads and construction workers) followed by AWW (brick kiln workers) and TV (slum dwellers).

POLIO

***Awareness about Polio*:** Nearly half of the respondents identified polio as paralysis of legs and nearly same proportion (47%) could tell that it is paralysis of arms but a little more than one percent could respond that polio is a viral disease that can cause paralysis.

Around 30 percent and more informed that polio mostly affect children aged less than five years while nearly one-fourth of the respondents opined that it can affect any child.

***Mode of transmission of polio*:** Nearly half of the respondents are not aware. Two-third of the respondents are aware that polio is preventable and among them more than 90 percent are aware that polio can be prevented by giving oral polio vaccine (OPV) drops.

***Age for Polio Drops*:** Nearly 80 percent of the respondents are aware that polio drops should be given up to the age of five years.

***Current and Preferred Source of Information*:** Among the current source of information about polio, polio vaccinator emerges as the main source across all the categories. The next main source identified is friends/relatives in nomads, TV in slum dwellers, AWW in brick kiln workers and doctor and AWW in construction workers categories.

On the preferred sources too, polio vaccinator is identified as the most preferred source across all the categories followed by government doctor among the families in nomads and construction workers categories , TV among slum dwellers and AWW in case of brick kiln category.

RECOMMENDATIONS

- ***Regular Update of OPV Beneficiaries List*:** List of OPV beneficiaries provided in states like West Bengal and Punjab, to some extent is not updated regularly. Regular updating will help in not only tracking the families living in the identified sites but also help in providing services to any new migrant family joining the site.
- ***Track RI Status of OPV Beneficiaries*:** The detailed list of OPV beneficiaries available for the four migrant categories could be used to target families for getting their children covered as per immunization schedule. The special drive for RI under UIP 2012 should cover these families.
- ***Registering with Anganwadi Centres*:** The study findings show that fewer children aged3-5 years are registered with an AWC. Special drive should be taken to get the children of these families registered with a nearest centre. This will have dual benefits- one, it will help in overall growth and development of children aged 3-5 years; two- families getting connected to AWC will help in creating awareness among families about RI and getting the children immunized as per RI schedule. In sites/locations with more concentration of nomadic groups as well as slums dwellers, regular visits of ANMs should be ensured to give vaccines to children.

- ***'Universal Routine immunization card'*** should be made for children belonging to brick kiln workers as well as construction workers categories ,which families should carry when they migrate to the city or even when to go back so that the service providers at either place can check the status for vaccinating the child as required.
- ***Anganwadi Centre or Crèche facility at Sites-*** Particularly in areas with number of brick kiln sites and construction sites, as a special measure, facilities to put up children in age group of 0-5 years of these families should be made. As the study finding shows that both the parents are engaged in work, this kind of facility will help in ensuring better overall growth including the immunization status of children.
- ***Children in schools-*** The study findings revealed that a high percentage of children in the age group of 6-14 years are out of school. With RTE Act in place, convergence with the education department should be made to get the children in schools. In case of children belonging to families of brick kiln sites, 'mobile schools' should be started. Alternatively, a special arrangement should be made with education department where children get 'Temporary Transfer Certificates' so that when families go back to their native place during off-season, they can continue with their schooling in the local government schools and on coming back to the brick kiln sites can easily continue in the school they left before going to their native place.
- ***Linkage with nearest health facility*****:** Brick kiln sites which are in the close vicinity of villages/towns/cities can be served with the health facility of that area, for distantly located brick kiln and construction sites facility of mobile immunization van can be provided. For this purpose local NGOs can also be involved to identify the people as well as for using logistics.
- ***Polio Vaccinator as RI Communicator*****:** As polio vaccinator have been identified as the preferred source of information, they can be trained for creating awareness about routine immunization schedules and facilities available for the service or the designated days on which the child could be taken to nearest facility for vaccination. The Vaccinators can play an important role in communicating about vaccines as well as timings of vaccines.
- ***Public Toilets for Nomads*****:** Open defecation is practiced by a majority of families in nomad category. The families should be made aware to use public toilets. At the same, the user fee to be paid to use public toilets acts as deterrent. A monthly concession in the user-fee could be introduced to encourage usage of public toilets.
- ***Toilets at brick kiln sites*****:** It should be made compulsory for the brick kiln owner to have toilets build at the sites so that the workers and their families should not go for open defecation. For garbage dumping and disposal, local municipal authorities should ensure availability of garbage bins in the vicinity. Convergence with JNURM will help in providing facilities at various points in the city/ district habituated by the families of the migrant population.

CHAPTER -1: MIGRATION-THREAT TO POLIO ERADICATION

1.1 BACKGROUND

In 2009 India had more polio cases than any other country in the world (741 nos.). In just two short years, India has taken a giant step towards ending polio forever. On January 13, 2012, India has reached a major milestone in the history of polio eradication – a 12-month period without any case of polio. This date marks the unprecedented progress in purging the Polio from India and an endorsement of the effectiveness of the polio eradication strategies and their implementation[1].

Still the battle against polio is not over, India will be declared polio free only when there will be no polio case for the coming two consecutive years and the standards to fight polio will be as per WHO standards[2].

1.2 MIGRATION AND POLIO

India is the country where livelihood of majority of the population depends on agriculture. But agriculture in India is largely dependent on unpredictable rains, resulting into fluctuating farm productivity and thereby income. This up and down in the income leads to a large number of migrants to nearby cities within the state or to other states in search of livelihood besides the nomadic tribes, who are on move from one place to another, rather than settling permanently in one location.

In a nation with long history of temporary migrants, there is threat to relapse some of the gains which have been made in eliminating the polio, since migrants often end up in slums and locations with poor sanitation, where chances for transmission of the virus are high. To add to it, due to temporary settlement and frequent movement from one location to another, these people generally tend to miss polio immunization rounds.

Keeping the above factors in focus, migrant population including construction workers, nomadic population, brick kiln workers, seasonal labourers and slum dwellers are given special focus and identified as high-risk communities under National Polio Eradication Program.

1.3 UNICEF'S ROLE IN POLIO ERADICATION PROGRAM

UNICEF's role is to support the polio eradication initiative by informing and mobilizing community members, leveraging support from local leaders and influencers and ensuring adequate information, education and communication (IEC) materials are available to maximize the effectiveness of eradication efforts.

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1 *A Triumph of Coordination: To the Last Case in India and Beyond, Ellyn W. Ogden, USAID, Worldwide Polio Eradication Coordinator, January 20, 2012*

2 *http://health.india.com/news/india-declared-polio-free-by-who/, Feb 25, 2012*

In order to assess the knowledge, behavior and practices related to polio and routine immunization in high-risk communities, ***CMS Social*** undertook a study on behalf of UNICEF in five non-endemic states namely Delhi, Haryana, Maharashtra, Punjab, and West Bengal.

1.4 OBJECTIVES OF THE STUDY

The present study is an effort

- To better understand the pattern of migration in non-endemic states.
- To better understand the knowledge, behavior and practices related to polio and routine immunization in high-risk communities (vulnerable population).
- To determine new methods of establishing communication interventions with these social groups.

1.5 STUDY APPROACH

Quantitative approach supported with qualitative research techniques was used to collect the required information for fulfilling the objectives of the study. To collect the information on knowledge, attitude, behaviour and practices related to polio and routine immunization a sample of migrants from the four identified category, who have at least one child aged less than five years was selected from the selected sites and information was collected using semi-structured schedule. To have insights on the pattern of migration in these non-endemic states and to better understand the behavioural aspects and practices related to polio and routine immunization focused group discussions (FGDs) were conducted at the community level. Further to understand the pattern of migration in these states and within the selected migrant population, in-depth interviews (IDIs) with PRI representatives/municipal ward members or/and influential persons belonging to these migrant groups were conducted.

In addition to this, In-depth Interviews (IDIs) with service providers i.e. ANMs/AWWs and ASHAs/Vaccinators were also conducted in the selected locations to understand the barriers and constraints in providing immunization to these communities and thereby redefine/develop new communication strategies for these sections of the society.

1.6 SAMPLING DESIGN AND DISTRIBUTION

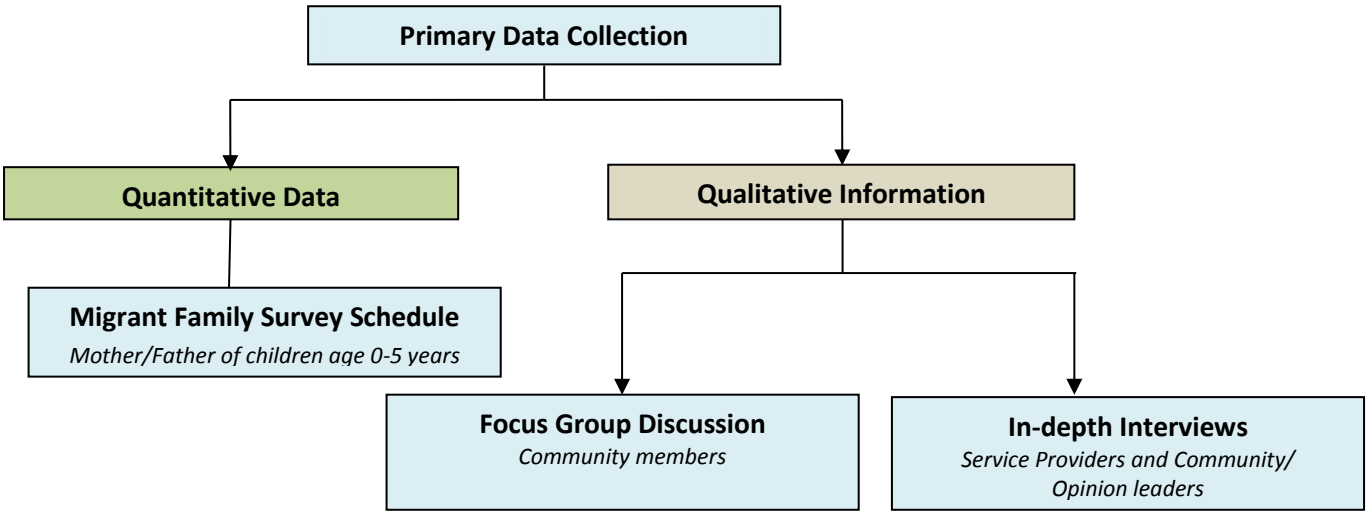
As per the scope of the study, a list of locations/sites identified at state level by NPSP of OPV beneficiaries under each of the four respondent categories in the selected districts was shared by UNICEF/concerned district offices. The list of districts covered in the five states is given in Table 1.1.

Table 1.1: State wise districts covered in the Study

State	Districts/Cities
Delhi	North east Delhi (slum areas)
Haryana	Gurgaon, Faridabad, Panipat, and Jajhar
Maharashtra	Thane, Greater Mumbai
Punjab	Ludhiana, Jalandhar, Patiala and Mohali
West Bengal	Howrah, 24 South parganas, Kolkata, Murshidabad

Based on the list of residential sites of OPV beneficiaries provided for each selected district, geographical mapping of the residential sites was done to get a representative sample from different directions of the district. A sufficient number of sites under each respondent category were randomly selected in advance keeping in view the geographical distribution of sites so that at least 4-5 eligible families i.e. families belonging to the identified migrant respondent category and having a child in the age group of 0-59 months could be covered from each site.

A schematic diagram which shows the complete Research approach process is as follows-



While selecting the respondents, it was ensured that there should not be any overlapping i.e. a family gets covered in only one of the four respondent categories identified for the study.

Table 1.2: Sample of Migrant Families Covered by Respondent Category

Respondent Category	Families *(in number)*
Slum Dwellers	389
Nomads	389
Brick Kiln Workers	391
Construction Workers	389
Total	1558

For estimation of findings by the four respondent categories, a sample of 384 migrant families from each of the four respondent categories was covered. Further, to have a representative sample from each of the five states, it was decided to distribute the sample uniformly under each of the four respondent categories. Thus, 78-80 migrant families from each respondent category in each state were to be covered. The distribution of sample achieved by the four respondent categories is given in Table 1.2 (*See Annex I for state wise distribution of sample by four respondent categories*).

However, in some cases, for instance in Delhi, no brick kiln sites was identified in the 'master list' provided by UNICEF/NPSP or in West Bengal, no families in nomads group or under construction workers category was found in the sites identified in the list, the shortfall in the sample was covered from other sample states.

In addition to this, one focus group discussion (FGD) in each respondent category in each of the selected states has been conducted. A total of 20 FGDs including 8 FGDS with only female-participant groups was conducted to get qualitative insights on various issues to be covered in the study. Along with this, in-depth interviews (IDIs) amongst service providers, PRI/ward members and community leaders of these groups were conducted. In all, 30 IDIs were conducted.

1.7 STUDY TOOLS

Following research tools were used to gather desired information and data from different set of respondent groups.

Tool 1: At Migrant families level a **structured survey schedule was** administered.

Tool 2: To know the community's perspective about Routine Immunization and Polio along with other related issues such as health and hygiene practices, a detailed **FGD guideline** was used.

Tool 3: Two sets of **IDI guidelines** were developed- one to be administered amongst community level service providers and; second to be administered with the community leaders/ward members/opinion leaders.

The survey schedule was simultaneously pre-tested in Delhi, Haryana, Maharashtra and West Bengal. Based on the observations of the field researchers and findings of the pre-test survey, appropriate changes were incorporated in consultation with UNICEF before firming up the tools.

1.8 ORIENTATION OF TEAM AND FIELD WORK

Prior to data collection, a four-day training programme for surveyors was organized in Delhi, Maharashtra and West Bengal respectively. For Hindi speaking states-Punjab, Haryana and Delhi, the training was organized at CMS Office, New Delhi. In West Bengal and Maharashtra the training was organized in Kolkata and Mumbai respectively in coordination with local implementing partners. One field team (comprised one field supervisor, two female field investigators and two male investigators) was constituted for each state. While the field investigators administered the family survey schedules across the four respondent categories, the field supervisors was responsible for overall supervision of their respective team which included selection of the sites, conduct IDIs and assist the researchers/field coordinator in conducting the FGDs at different locations.

The data collection was done from April to May 2012. Unicef representatives participated in trainings at Delhi and Mumbai.

1.9 QUALITY ASSURANCE

To ensure good quality of data is collected in the field, during various stages of the study, the following quality control measures were used by CMS Social based on its years of experience.

- Field guidelines were prepared explaining the questionnaire and sampling methodology so that there can be consistency and compatibility in the data collection across the states.
- Study tools were simultaneously pretested in Delhi, Haryana, Maharashtra and West Bengal to identify and rectify any problems with the tools.
- The English version of the Survey Schedule was translated in three languages-Hindi, Bangla and Marathi.
- All the tools, guidelines were finalized in consultation with UNICEF.
- The key professionals from CMS Social accompanied the field team in the initial days to ensure clarity of issues with regard to the research tools amongst the team members.
- A senior field team executive from time to time telephonically checked with the randomly picked respondents about the survey. In Maharashtra, Punjab and Haryana and West Bengal, a senior field executive from CMS was present throughout the field work.
- Team worked in close and constant guidance of field executives/supervisors to ensure the data quality.
- Informed consent was taken from the respondents and participants before initiating the interview/discussion.

1.10 DATA MANAGEMENT AND ANALYSIS

The filled-in questionnaires were thoroughly scrutinized in the field before they were sent to the CMS office. In-house data entry was done after coding of the open-ended responses in the questionnaires followed by validation of data. The entered data was analyzed using SPSS. Cross sectional analysis was conducted and further analysis of the data was conducted suiting the data type and according to expected output in consultation with UNICEF. This was followed by report writing.

The qualitative information, collected during FGDs and IDIs, was put in a matrix against key parameters. The information so collated was analyzed and was used to supplement and complement the results of quantitative analysis.

1.11 LIMITATION OF THE STUDY

By and large the study was completed without any major constraints and hick ups with the given time plan. However, some of the limitations of the study identified, particularly during field work are:

- List of residential sites of OPV beneficiaries was not updated. For instance in few locations in West Bengal and Punjab, on visiting the selected sites, the study team found that the site is not 'active' i.e. the migrant families have moved out from the given location.
- In some locations, only male members were available although the list indicated number of families with children (along with mothers) who were given OPV during last round of *Polio Ravivaar*.

- Generally, the brick kiln sites gets closed before onset of Monsoon, in most cases from the month of May for around six months. Since the field work started in last week of April, particularly in West Bengal, during visit to many of these sites, the field team found that in most of the sites, the families have moved out from the brick kiln sites. The team therefore had to visit a large number of sites then proposed to get the desired sample.
- Redistribution of sample due to not 'active' or very few sites, the field team had to revisit many districts again in other survey states to cover the shortfall of sample in a given category.
- In nomads' category, the study team observed that unlike the feature of nomadic tribes, the families in the identified sites are residing for a longer period of time; in many cases since last 10-12 years. Moreover, it was also observed that in the sites given in the list the families residing do not necessarily belong to the nomadic tribes, for instance in Maharashtra.
- In slum dwellers too the residents were not of shorter duration but staying since a longer period of time, hence do not show the observed characteristics of a migrant family.

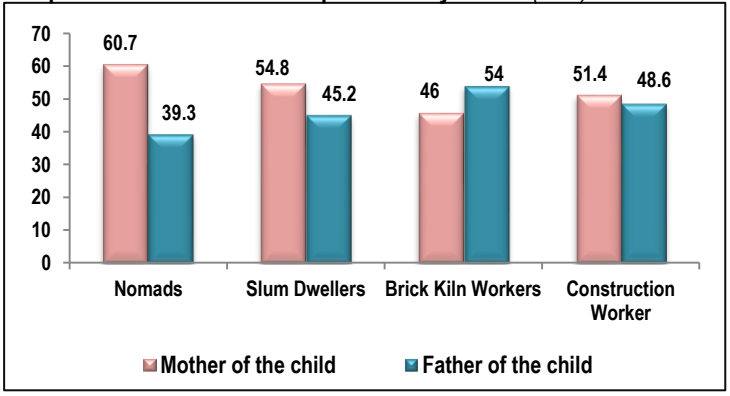
CHAPTER -2: RESPONDENT GROUPS' PROFILE

The present chapter is broadly categorized in to four sections. The first section details out the general characteristics of respondent families such as their social groups, education, and occupation. The next section brings out their present living conditions while the third section is on the families' sanitation and hygiene practices. The last section highlights the migration characteristics of the surveyed households.

A: GENERAL PROFILE

A total of 1558 households/families were visited for interview and either of parents (Mother/Father) of the reference child (youngest child of the family, who is below 60 months of age) was interviewed. A sincere effort was made to get a representative number of both the parents each of the respondent categories. This was done to ensure that any gender-biasness in the responses could be avoided (*Graph 2.1*).

Graph 2.1: Distribution of Respondents by Parent *(in %)*



Reason for getting fairly similar proportion of male and female respondents among brick kiln and construction worker was that both male and female usually work at the same site and their place of residence and place of work are same or in proximity.

Information was gathered on number of family members by age group in each surveyed family. For the present study the immediate family members of the reference child i.e. her/his parents and siblings were only included in the family. Though average family size was above four across all the four categories but nomads were found to have the largest family size (4.6 members) followed by construction workers.

Table 2.1: Household Headcount and Family Size

Indicator	Baseline				
Household Headcount	Nomads	Slum Dwellers	Brick Kiln Workers	Construction Workers	Total
	Number of Persons				
N	389	389	391	389	1558
n	1774	1689	1759	1616	6838
Male	52.3	48.3	48.7	53.0	50.5
Female	47.7	51.7	51.3	47.0	49.5
Total	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*
Average Family size	4.56	4.34	4.50	4.15	4.39

N=Total no. of surveyed households
n=Total Number of persons

Among the surveyed households, a little more than half of the slum dwellers were having one of the identification documents of the district, where the interview was conducted. Nomads were comparatively distant second with less than one-fourth of them possessing any identification documents of the same district where the study covered them.

For a high percentage of slum dwellers possessing a government identification document could be attributed to the fact that many slums in these states are no longer any temporary settlement and families are staying there since a long period of time. Similarly in case of Nomads, contrary to the tribe's characteristic of moving from one place to another, the families in the OPV sites (identified as the ones having Nomads) are staying at the same place for many years. However, they continue to follow their typical style of housing and living.

Table 2.2: Possess Identification Document of District Currently Settled at

Indicator	Baseline				
Religion	**Nomads**	**Slum Dwellers**	**Brick Kiln Workers**	**Construction Workers**	**Total**
N	**389**	**389**	**391**	**389**	**1558**
Have an **identification proof** at currently settled district (in %)	**22.1**	**50.4**	**9.7**	**6.7**	**22.2**
Type of Identification document possess* (*in %*)					
N	**86**	**196**	**38**	**26****	**346**
Ration Card	57.0	65.8	84.2	8	63.0
Voter ID Card	68.6	80.6	21.1	16	69.7
Driving License	1.2	1.5	-	-	1.2
PAN Card	3.5	1.0	-	2	2.0
Aadhaar Card	2.3	5.1	-	1	3.8

**Multiple Responses (total may exceed 100.0)*
***figures in number because n is < 30 nos.*
N=Total no. of surveyed households

Lesser percentage of families from the brick kiln (10%) and construction workers (7%) categories possess any identity proof document. This is primarily due to shorter duration of continuous stay in the same location/district of the families belonging to these two categories.

Noticeably, around 3-4 families in the Nomad category from Delhi reported having a member with PAN card. One of the reasons for possessing a PAN card is that the families make metal sheets for a factory and hence for payment and other transactions, the PAN card is required.

2.1 FAMILY PROFILE

Table 2.3: Distribution of Households by Social Group

Indicator	Baseline				
Social Group	**Nomads**	**Slum Dwellers**	**Brick Kiln Workers**	**Construction Workers**	**Total**
N	**389**	**389**	**391**	**389**	**1558**
Scheduled Castes	39.6	33.2	48.1	37.8	39.7
Scheduled Tribes	9.5	9.8	13.3	14.4	11.8
Other Backward Castes	38.6	32.9	28.9	36.2	34.1
General	12.3	23.7	9.2	10.3	13.9
Don't Know	-	0.5	0.5	1.0	0.5
Total	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*

N=Total no. of surveyed households

The study findings on **religion** in which families have faith shows that majority of the surveyed families (83%) across four respondent categories are Hindus followed by Muslims (16%). The highest percentage of respondents from the Muslim community (31%) got covered in the category of slum dwellers.

The **social group** composition suggests the dominance of Scheduled Castes followed closely by the Other Backwards Castes across the four respondent categories covered in the study. Around 24 percent general category respondents have been found amongst the slum dwellers, which is noticeable as in other categories the presence of the general category is around 10 percent; in Nomads it is around 12 percent. Sociologically speaking, nomads are those who belong to the denotified, nomadic or semi-nomadic tribes of India and who generally move from one place to another to earn their livelihood. However, the study found a significantly low percentage of scheduled tribes among the nomads in the study sample. This is primarily because the families covered under Nomad category in the study are those who move from one place to another to sell their goods or earn their livelihood but may not necessarily be those belonging to the denotified, nomadic or semi-nomadic tribes of India.

The **educational status** of the parents by respondent categories shows that majority of mothers (70%) as well as fathers (52%) of the reference children are illiterate; among mothers illiteracy is highest being in brick kiln category while amongst fathers, illiteracy is highest in the nomad category. Amongst the rest, most of the mothers have completed primary level of schooling while amongst fathers, almost similar percentage have completed middle and primary level of schooling. Across four respondent categories, the educational status of mothers as well as fathers belonging to slum dwellers category is comparatively better.

Table 2.4: Educational attainment of Parents of Reference Children in Surveyed Households by Respondent Category *(in %)*

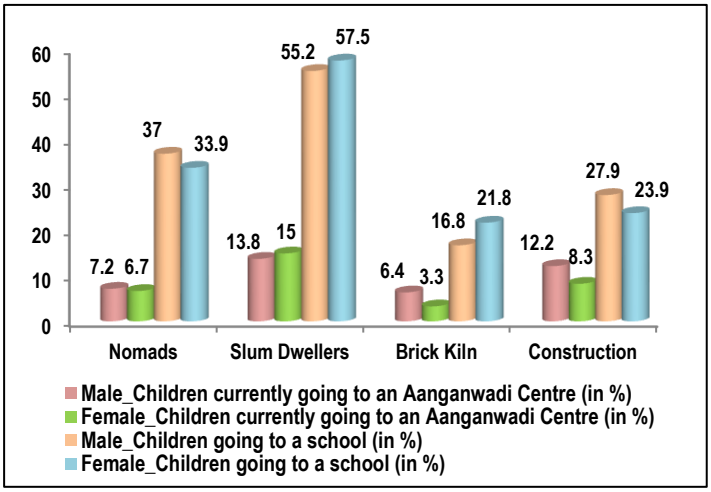
Indicator	Respondent Category									
Educational Status	Nomads		Slum Dwellers		Brick Kiln Workers		Construction Workers		Total	
	Mother	Father	Mother	Father	Mother	Father	Mother	Father	Mother	Father
N	389		389		391		389		1558	
n	389	385	389	385	391	388	389	389	1558	1547
Primary	13.6	10.9	15.9	15.3	9.2	15.2	12.1	15.9	12.7	14.4
Middle	5.4	15.8	11.3	20.5	4.1	12.1	12.3	15.2	8.3	15.9
High School	3.6	6.2	9.8	15.3	1.3	7.0	3.1	11.6	4.4	10.0
Secondary	0.0	0.8	3.6	6.0	0.3	1.8	1.0	3.3	1.2	3.0
Completed Graduation	0.0	0.3	1.0	2.6	0.3	0.5	0.0	0.5	0.3	1.0
Can Read & Write Only	2.1	3.1	3.6	5.2	2.0	3.4	2.8	4.9	2.6	4.1
Illiterates	75.3	62.9	54.8	35.1	82.9	60.1	68.6	48.6	70.4	51.6
Total	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*

N=Total no. of surveyed households;
n=Number of persons

For overall growth and development of children, the government encourages families to send their children in the age group of 3-5 years to Anganwadi Centre (AWC) for pre-schooling, where apart from learning the children also get mid-day meals, which is important for their nutritive growth. However, the study findings did not show an encouraging picture. Across all the respondent categories, the percentage of children in this age group going to an AWC has been found to be very low. It is the lowest in case of the brick kiln workers where only around 6 percent boys and 3 percent girls in the age group of 3-5 years go to the Anganwadi Centres. Comparatively, amongst the slum dwellers it is better where only 14 and 15 percent for boys and girls respectively are going to an AWC. The percentage has been calculated based on the total number of children in the age group of 3-5 years and not on the number of households. One of the reasons for children not going to any AWC is lack of awareness about such facility or absence of any centre in the vicinity.

Amongst the school-going age group (6-14 years), the percentage of children going to school is equally discouraging (Graph 2.2). It is lowest in the brick kiln category followed by construction worker. This could be attributed to the fact that families in these two categories are not residing at one place for a longer period of time and hence do not put their children to schools. It is also possible that school authorities too might not be encouraging such families to enroll their children in the school. With Right to Education Act coming in to existence it would be a challenge to get children of such families in schools.

Graph 2.2: Educational Status of Children age 6-14 years *(in %)*



As education, the **occupational status** of parents is equally important to be understood to reflect upon the family profile. Table 2.5 depicts the occupational status of the parents of the reference child for all the respondent categories. As is evident, the two respondent categories namely, brick kiln workers and construction workers are identified on the basis of occupation while the variation in the type of occupations are expected in the case of the nomads and the slum dwellers only. As emerged from the study findings, in majority of the families both the parents in the brick kiln workers (Father-100%; Mother-98%) and construction workers (Father- 99%; Mother-76%) categories are engaged in the same occupation.

Table 2.5: Occupational Status of Parents of Children in Sampled Household *(in %)*

Indicator	Respondent Category									
Occupational Status	Nomads		Slum Dwellers		Brick Kiln Workers		Construction Workers		Total	
	Mother	Father	Mother	Father	Mother	Father	Mother	Father	Mother	Father
N	389		389		391		389		1558	
n	389	385	389	385	391	388	389	389	1558	1547
Brick Kiln	0.3	0.3	1.5	1.6	98.2	100	-	-	25.1	25.4
Construction Worker	7.5	9.4	2.6	7.5	-	-	76.1	98.7	21.5	28.8
Housewife	48.2	-	74	-	1.8	-	21.5	-	36.4	-
Cobbler/Carpenter/ Barber/Blacksmith	12.9	19.5	1.0	5.7	-	-	-	-	3.5	6.2
Hawker/Vendor	12.3	34.7	4.4	11.9		-	0.8	0.5	4.4	11.7
Petty trade/ Small shop	2.1	5.2	2.8	12.2	-	-	-		1.2	4.3
Sales Person	-	2.1	-	7.0	-	-	-	-	-	2.2
Auto Driver/ Rickshaw Puller	-	3.9	-	17.9	-	-	-	0.4	-	5.5
Factory Labour	-	2.8	0.3	13.5	-	-	-	0.4	0.1	4.1
Plumber/Electrician/Painter	-	1.6	-	3.9	-	-	-	-	-	1.3
Garbage Picker	7.5	9.0	4.4	7.5	-	-	0.3	-	3.0	4.1
Domestic help	4.4	1.6	5.9	2.6	-	-	0.8		2.8	1.0
Others	4.8	9.9	3.1	8.7	-	-	0.5	0.3	2.1	4.6
Total	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*

N=Total no. of surveyed households
n=Total no. of Persons

However, among the nomads and the slum dwellers, a wide range of economic activities have been reported. Among nomads, around 35 percent of the fathers are hawkers/vendors followed by around 20 percent who are engaged in occupations such as cobbler, carpenter, barber and blacksmith. The mothers of the reference child in the nomad category are mostly housewives (48%). In the slum dwellers category, around 18 percent of fathers are auto-rickshaw drivers (18%), followed by factory labour (14%) and petty traders/shopkeepers (12%). Nearly three-fourth of the mothers of the reference child in slum dwellers category are housewives.

B: FAMILIES' LIVING CONDITIONS

The housing conditions of the families are an important reflector of their socio-economic status. Information on type of house, source of drinking water and type of toilet and bathing facilities were sought from the surveyed families. It is important to mention that the information was enquired with reference to the current place of stay, even if they are staying there temporarily/for short-duration and not with reference to these facilities available at their native place.

On **type of house** in which the family is residing, it emerged that while around 83 percent of the families in the nomad category are staying in a tent like arrangement made of polythene/ bamboo/plastic sheets, around 75 percent of families in the brick kiln category and 56 percent in the construction workers category are residing in kuchcha houses. In these two categories, as is observed, the families are living at their work sites only, the houses are built of non-plastered brick walls with roofs made of asbestos/tin sheets. In the slum dwellers category, around 48 percent families are living in semi-pucca houses. Due to their longer period of stay, the percentage of families living in pucca houses is comparatively higher (19%) in slum dwellers category. Noticeably, around 6 percent of the families in the nomad category are found to be living in open under some flyovers/bridges.

Table 2.6: Type of House *(in %)*

Indicator	Baseline				
Type of House	Nomads	Slum Dwellers	Brick Kiln Workers	Construction Worker	Total
N	389	389	391	389	1558
Kachcha	6.9	13.6	74.9	56.1	37.9
Semi-pucca	4.1	48.4	14.3	10.8	19.4
Pucca	0.3	18.5	-	4.6	5.8
Live in open	5.9	-	0.3	1.8	2.0
Tent (bamboo/ polythene)	82.8	19.5	10.5	26.7	34.9
Total	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*

N=Total no. of surveyed households

Availability of safe and clean **drinking water** is vital for the health and well being of the community members. Information on the source of drinking water brought out that tap/piped water is available to nearly two-third of the families in both nomad and slum dwellers categories. It is important to mention that most of these taps are community taps or common for the families living in same housing structure. On the other hand, for more than 90 percent of the families in brick kiln categories, tube well/hand pump is the main source of drinking water. This is primarily due to the reason that brick kiln sites are mostly located in outskirts of the city area and hence piped water

facility is not available. For families of construction workers too, tube well/hand pump is the main source of drinking water (54%). Around 6 percent of families in nomad category depend upon water tanker facility to meet their need of drinking water.

Table 2.7: Source of drinking water (in %)

Indicator	Baseline				
Source of drinking	Nomads	Slum Dwellers	Brick Kiln Workers	Construction Worker	Total
N	389	389	391	389	1558
Tap	67.8	67.1	4.6	42.4	45.4
Tube well/ Hand pump	26.0	31.4	91.3	54.0	50.7
Tanker	6.2	1.5	.3	3.3	2.8
Surface Water	-	-	3.8	.3	1.0
Total	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*
N=Total no. of surveyed households					

The study findings show that across all the respondent categories the practice of treating water before consuming is almost missing (Table 2.7). This is because, the respondents largely believe that the water that they get/is available for consumption is clean and does not require any purification. This was also reported during focus group discussions with the community members as well as during in-depth Interviews with community/opinion leaders. As high as 95 percent of the families covered in the study do not treat water before using it for drinking purpose. Amongst the 5 percent families who treat water, most are from slum dwellers category. A The general practice being followed for treating water is filtering by cloth or by boiling water to make it suitable for drinking purpose.

To assess the living conditions of the families, it was felt important to enquire about the **bathing facilities** available for the male and female members of the families surveyed. As emerges from the study findings (Table 2.9), majority of the male members in the three respondent categories except slum dwellers take bath in open. While around 44 percent of male members belonging to slum category take bath in open, around 40 percent of the families in this category have their own bathing room.

Table 2.8: Treatment of drinking water before consuming *(in %)*

Indicator	Baseline				
Method of Treatment of Drinking water	Nomads	Slum Dwellers	Brick Kiln Workers	Construction Worker	Total
N	389	389	391	389	1558
Households reporting by method of treatment					
No treatment	96.9	91.0	98.2	93.1	94.8
By cloth	2.6	3.2	1.2	4.6	2.6
Use Alum	-	.3	0.3	-	0.1
Boils water	0.5	3.1	-	0.5	1.0
Use water filter	-	2.1	0.3	1.3	0.9
Use Electronic Purifier	-	0.3	-	0.5	0.2
Total	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*
N=Total no. of surveyed households					

Amongst female members too due to lack of proper closed bathing facility, majority in brick kiln category (58%) and as high as 48 percent in construction workers and 40 percent in nomad categories have to take bath in open. Even in the slum dwellers category around 30 percent females take bath in the open.

Table 2.9: Place of Taking bath *(in %)*										
Indicator	**Respondent Category**									
Place of Taking bath	**Nomads**		**Slum Dwellers**		**Brick Kiln Workers**		**Construction Worker**		**Total**	
	Male	**Female**	**Male**	**Female**	**Male**	**Female**	**Male**	**Female**	**Male**	**Female**
N	**389**		**389**		**391**		**389**		**1558**	
Temporary Covered	13.4	32.8	6.7	10.8	6.4	23.6	9.0	23.1	8.9	22.2
In Open	71.2	40.4	43.5	29.2	82.6	58.2	73.1	47.9	67.6	44.0
Closed (Own)	5.4	16.5	40.1	47.6	4.1	9.2	6.9	11.8	14.1	21.2
Common Sharing with Other families	0.5	0.5	6.4	7.5	5.4	6.4	9.5	15.7	5.5	7.4
Community Bathroom	9.5	9.5	3.3	4.6	1.5	2.6	1.5	1.5	3.7	4.1
Others	-	.3	-	.3	-				0.3	1.0
Total	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*
N=Total no. of surveyed households										

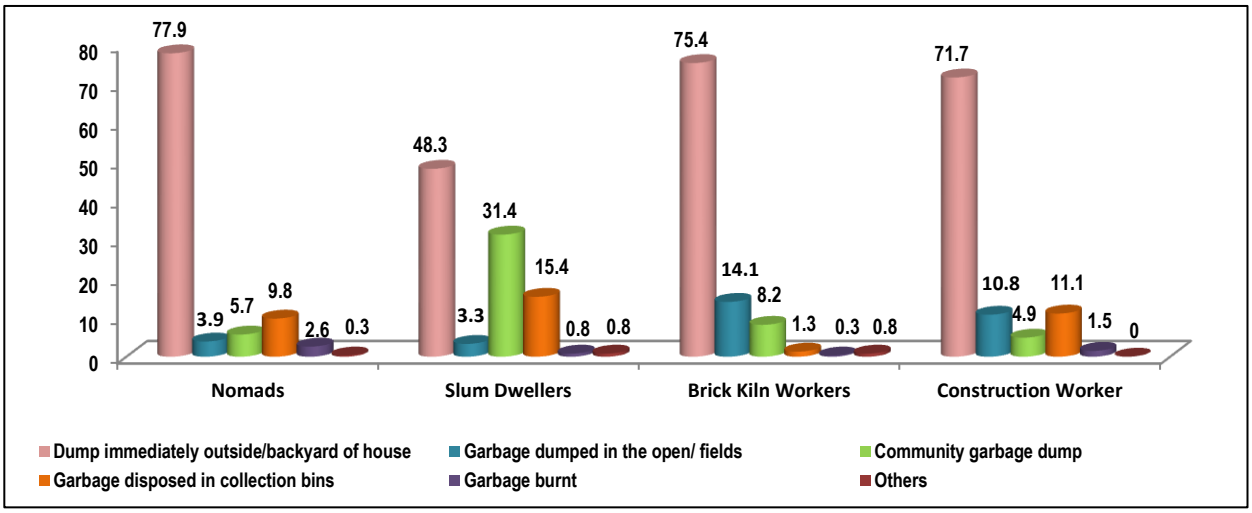
C: SANITATION AND HYGIENE

Access of **toilet facility** among the nomads and brick kiln workers is low with 64 percent and 69 percent families respectively in these two respondent categories still practice open defecation. The percentage of open defecation is equally high among the construction workers (43%) and slum dwellers (30%) categories. With the exception of slum dwellers where 23 percent households have been found to have toilet facility at their place of stay, own toilet facility is less than a percent among the other three respondent categories. As the study locations were mostly urban, the availability and usage of public toilet by these families is also evident with around one-fourth of the surveyed families using the public toilets.

Table 2.10: Kind of Toilet Facility Available *(in %)*					
Indicator	**Baseline**				
Kind of Toilet Facility	**Nomads**	**Slum Dwellers**	**Brick Kiln Workers**	**Construction Worker**	**Total**
N	**389**	**389**	**391**	**389**	**1558**
Open defecation	63.7	30.3	68.5	43.4	51.5
Own Toilet	0.3	22.9	0.5	0.8	6.1
Public Toilet	32.1	36.3	11.3	26.3	26.5
Common Toilet with other families	1.3	6.9	5.9	26.7	10.2
Open Pit/Pit Latrine Without slab	2.6	3.6	13.8	2.8	5.7
Total	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*
N=Total no. of surveyed households					

Another important indicator of good sanitation and hygiene practice is **garbage disposal**. The findings as evident from Graph 2.3 suggest the lack of good sanitation and hygiene conditions around the place of stay of the respondent categories. Though compared to the other respondent categories, slightly lesser but still significant percentage of the families in slum dwellers category (48%) dump their garbage outside or in the backyard of their houses, in the other three respondent categories the proportion of the households practicing similar way of garbage disposal is around three-fourth.

Graph 2.3: Place of Dumping Household wastes *(in %)*



As observed in other indicators, the slum dwellers are having somewhat better facilities. In the present context too, it is observed that around 47 percent of the families in this category dump the household garbage either at common community garbage dumping place or put in a collection bin.

C.1 HAND WASHING-KNOWLEDGE AND PRACTICES

Washing hands properly is considered as one of the most important measures for preventing diseases. It protects against diseases transmitted through fecal-oral routes or direct physical contact. The respondent categories have been found to be aware about the benefits of washing hands and the majority of the respondents across the four categories feel that washing hands with soap helps in cleaning dirt from the skin and in killing germs and disease causing organisms. However, around 8 percent respondents in the nomad category and 6 percent in the brick kiln category were not aware of the benefits of washing hands with soap (*Table 2.11*).

Table 2.11: Knowledge about Hand Washing with Soap* *(in %)*

Indicator	Baseline				
Reasons for washing hands using Soap	**Nomads**	**Slum Dwellers**	**Brick Kiln Workers**	**Construction Worker**	**Total**
N	**389**	**389**	**391**	**389**	**1558**
It cleans the dirt from the skin	54.5	70.7	64.7	53.0	60.7
It kills all germs and disease causing microbes	47.3	59.6	35.5	42.7	46.3
It removes odor	37.5	24.4	42.2	43.4	36.9
It removes irritation caused by dirt	14.7	12.6	13.0	15.2	13.9
It softens the skin	5.7	3.6	3.1	3.1	3.9
Don't know/Can't say	8.2	1.8	5.9	3.1	4.7
Total	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*

N=Total no. of surveyed households
** Multiple Response (total exceeds 100.0)*

Further, on being enquired about the diseases caused due to not washing hands using soap, nearly two-third of the surveyed respondents mentioned diarrhoea and loose motion. Across respondent categories, the percentage of families mentioning these two diseases was high in slum dwellers category. Awareness about other diseases which might get caused due to not using soap for washing hands is low (<5 %) in all the four respondent categories.

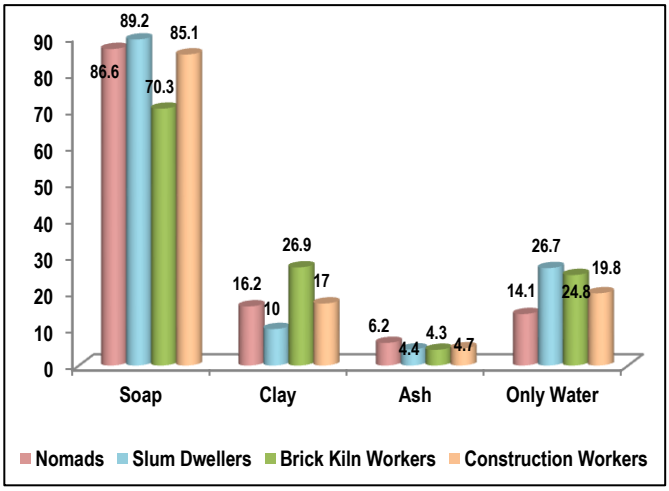
The findings as reflected in Graph 2.4 show that the practice of washing hands with soap is followed by majority of the respondents in all the four respondent categories; highest (89%) in slum dwellers followed by nomad (87%), construction workers (85%) and brick kiln workers (70%). A significant percentage of brick kiln workers use clay (27%) followed by 25 percent who use only water to wash hands. During discussion with the community members at the brick kiln sites, it emerged that since the work at brick kiln sites largely involves the use of clay, they generally use clay to wash their hands however, they use soap during bathing and after defecation. Noticeably, a significant percentage of respondents across all four respondent categories use only water to wash hands; highest being in slum dwellers category (27%).

Table 2.12: Knowledge about DISEASES CAUSED DUE TO NOT WASHING HANDS USING SOAP *(in %)*

Indicator	Baseline				
Diseases caused due to NOT washing hands with soap	Nomads	Slum Dwellers	Brick Kiln Workers	Construction Worker	Total
N	389	389	391	389	1558
Diarrhoea	49.4	49.4	30.9	44.0	43.4
Loose Motions	15.7	37.8	18.2	14.9	21.6
Typhoid	4.6	3.9	1.5	3.3	3.3
Hepatitis-A/E	2.1	1.0	.8	1.0	1.2
Polio	2.1	1.0	.3	.3	0.8
Dk/CS	35.0	23.7	45.8	41.9	36.6
Others	17.3	23.4	23.4	10.9	18.7
Total	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*

N=Total no. of surveyed households

Graph 2.4: Practice related to Hand washing-HOW? *(in %)*



Except for using soap after defecation, which was reported by around 90 percent of the respondents across the four categories (Table 2.13), on other occasions the percentage of respondents using soap is even less than 40 percent. Around 36 percent respondents in all categories use soap after washing child's bottom. The percentage of respondents using soap before eating is also around 30 percent across all the categories.

Table 2.13: Practice related to HAND WASHING USING SOAP-When*? *(in %)*

Indicator	Baseline				
Wash hands USING Soap…	Nomads	Slum Dwellers	Brick Kiln Workers	Construction Worker	Total
N	389	389	391	389	1558
n	337	347	275	367	1326
After defecation	93.2	91.4	86.5	92.9	91.3
After washing child's bottom	39.2	40.3	30.5	32.7	35.9
After disposing of child's faeces	18.7	15.9	8.7	9.0	13.2
Before Eating	31.2	38.9	30.2	30.8	32.9
Before cooking	11.0	22.8	8.7	10.4	13.4
Before feeding children	0.9	5.2	1.5	1.9	2.4
After cleaning the utensils	11.9	17.9	6.2	11.2	12.1
After sweeping / mopping / dusting	17.2	25.6	12.7	15.5	18.0
After coming from work	8.9	7.8	20.4	18.8	13.7

**Multiple Response (Total exceeds 100.0)*
N=Total no. of surveyed households
n= Number of Respondents who wash hands using soap

D: MIGRATION

One of the prime objectives of the present study is to ascertain the threat posed to the entire campaign of routine immunization and polio eradication by the migration pattern of the four vulnerable categories namely, nomads, slum dwellers, brick kiln workers and construction workers.

D.1 DURATION OF STAY

The duration of stay in a city/place of current location helps to assess the mobility pattern. As the study findings show (Table 2.14), the families staying in the slums are least mobile amongst the four respondent categories. The average duration of stay of the families staying in the slums at the current location is approximately 9 years while in the city is approx. 12 years. This suggests that the slum dwellers are mostly permanent migrants who have settled down in the cities visited during the study. Unlike the characteristics of a nomadic tribe, which was referred earlier also in the chapter, the average duration of stay at the current location is approx. 7 years and in the city it is around 10 years. As emerges and shared by the participants during group discussion, the families in the nomad category do not change their place of stay very often unless and until forced to evacuate. On many occasions they might change their place of stay in the city, but usually do not move to another city.

Table 2.14: Duration of Stay

Indicator	Baseline				
Duration of Stay	Nomads	Slum Dwellers	Brick Kiln Workers	Construction Workers	Total
N	389	389	391	389	1558
Average period of stay in the current location (in months)	86.4	109.4	13.6	20.5	57.4
Average period of stay in the present city (in months)	120.3	140.6	31.8	39.6	83.0

N=Total no. of surveyed households

On the other hand the average period of stay of the brick kiln workers at the current location is around 1 year and in the city it is around two and a half years. In the case of construction workers the average period of stay at the current location is around 1.5 years and in the present city it is around 3 years. Thus, one can conclude that the nature of stay of these two categories lies somewhere between periodic- or- semi-permanent type, largely governed by the availability of work at/near the place of stay or city.

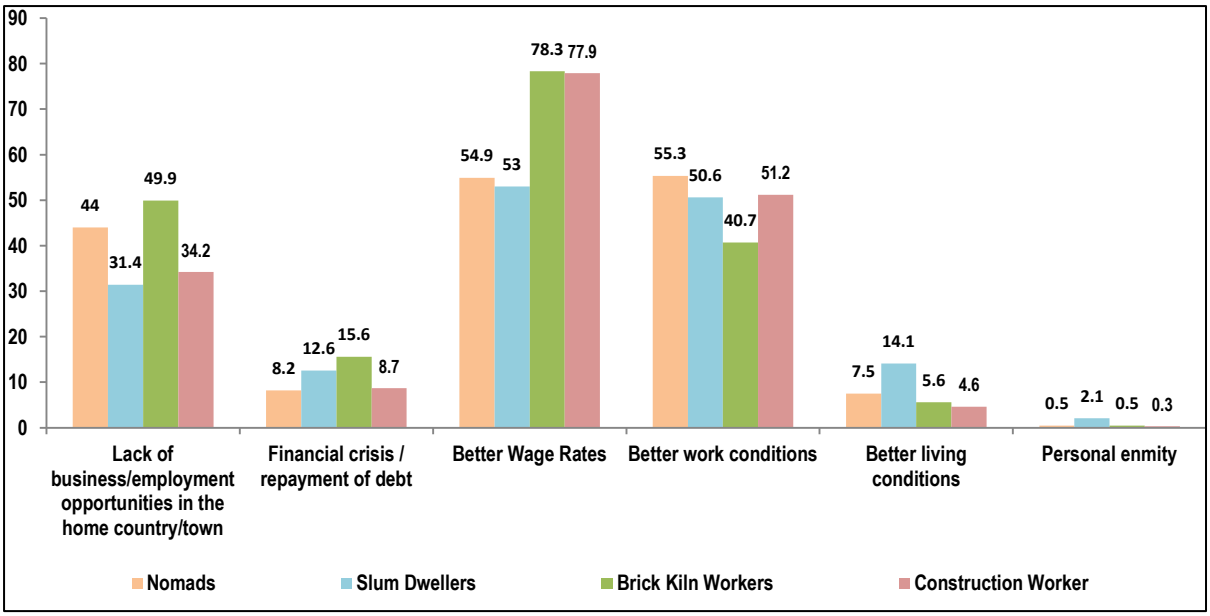
Further on being enquired about their native place, in all the four respondent categories, around 30 percent are from Uttar Pradesh while a sizeable percentage (15%) in the three respondent categories except Nomad are from Bihar. In nomad category, around 27 percent are from Rajasthan state, while amongst families in construction workers category, around one-fourth belongs to Madhya Pradesh/Chhattisgarh.

D.2 REASONS FOR MIGRATION FROM NATIVE PLACE

The findings as evident from Graph 2.5 suggest that primarily economic push and pull factors play a role in arriving at a decision to migrate from native place and the destination of migration. While the respondents across the studied categories moved out due to lack of business/employment

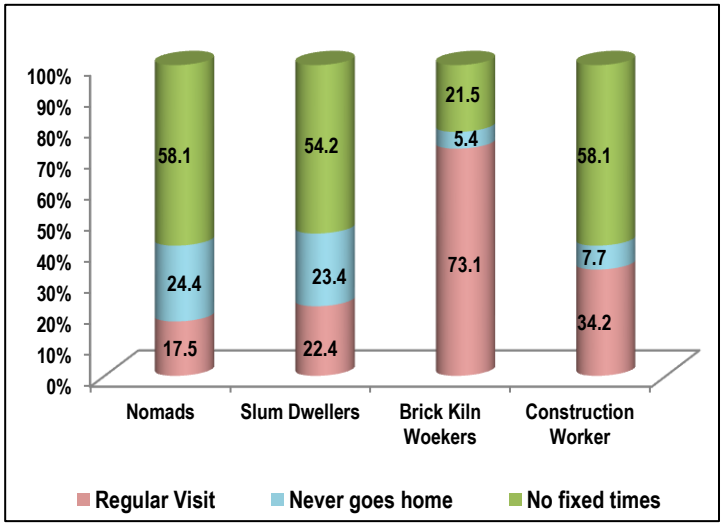
opportunities at the place of origin, the attraction of better wage rates and work conditions have pulled them to the current place of work and stay. Around 78 percent respondents each from the brick kiln workers and the construction workers have migrated due to the better wage rates at the destination. In the case of nomads and slum dwellers it is 55 percent and 53 percent respectively.

Graph 2.5: Reasons for Migration *(in %)*



D.3 TREND OF VISITS TO NATIVE PLACE

Graph 2.6: Trends of Visits to Native Place



On the expected lines, amongst the four respondent categories, the brick kiln workers are the most frequent visitors to their native place; around 73 percent go annually followed by the construction workers (34%), slum dwellers (22%) and nomads (18%). The reason for such a high percentage of brick kiln workers visiting their home town regularly every year could be largely attributed to the nature of their work. The brick kiln sites closes down during rainy season and hence they go back to their native place. Going around mid April-May and returning in October-November is the usual practice among the brick kiln workers. While among other three respondent categories, majority reported that there is no fixed time but depend on other factors such as during school vacations (largely in case of slum dwellers) or during festivals/marriages or any other emergency arising. Noticeably around one-fourth of families in nomads and slum dwellers categories informed that they have not gone to their native place after settling in the present city.

On the duration of stay, when they visit their native place, majority of the families stay for more than a month. Only 15 percent of the families, mainly belonging to nomads and slum dwellers categories, reportedly stay for less than a month. Amongst those who stay their native place for more than a month, the average duration of stay of the families (including children and mother) is similar i.e. around 2 months in all the three respondent categories except the brick kiln workers. In case of families of brick kiln workers the stay period is around 4 months, largely because it is associated with their work.

Table 2.15: Duration of Stay (Wife & Children) during Visits to Native Place
*(*excludes those who stays less than one month)*

Indicator	Baseline				
	Nomads	Slum Dwellers	Brick Kiln Workers	Construction Worker	Total
N	389	389	391	389	1558
n_1	294	298	370	359	1322
Average duration (*in month*)	2.2	2.1	3.8	2.4	3.2

N=Total no. of surveyed households
n_1 *=Number of households reported visiting their native place*

D.4 PLAN TO MIGRATE FROM CURRENT CITY WITHIN SIX MONTHS

To draw communication strategy plans for making the routine immunization or polio elimination drive efforts more effective and far reaching at the community level, the families were enquired about the near-future plan i.e. within next six months, if any, to migrate to another city/district. Excluding the families belonging to brick kiln workers category, only 2 percent of the families in the other three categories informed about the possibility of moving to another city/district. This is also corroborated by an earlier finding on the duration of stay at the present location, which indicates that most of the families do not move to another city/district frequently. In the brick kiln categories, around 10 percent reported.

CHAPTER -3: HEALTH RELATED PRACTICES

The present chapter focuses on the health related behaviour of the four respondent categories. It discusses the preferred places of treatment in case of general illnesses in the household. The chapter brings out the place of delivery during birth of reference child and mothers' awareness and practices related to breast feeding as well as incidence of diarrhoea with reference to the child and treatment sought/provided for the same.

3.1 PLACE OF TREATMENT

One of the important indicators to understand the health seeking behaviour of the target population is to get acquaint with their preferred health facilities for treatment of any family member's illness. The respondents were asked about the health facilities they usually approach in case of general ailments.

Table 3.1: Preferred Place for Treatment during Morbidity* *(in %)*

Indicator	Respondent Category				
Treatment Facility	Nomads	Slum Dwellers	Brick Kiln Workers	Construction Worker	Total
N	***389***	***389***	***391***	***389***	***1558***
Government District/Municipal Hospital	33.9	39.6	23.5	38.8	34.0
CHC/PHC/Urban Health Post/Dispensary	19.5	14.9	27.6	18.3	20.1
Sub-Centre	0.5	2.3	1.0	0.3	1.0
Private Hospital/Clinic	56.3	71.5	61.1	65.0	63.5
Chemist Shop	22.1	23.4	19.7	27.0	23.0
Home Remedy	12.6	5.4	7.2	11.3	9.1
Quacks/Local Practioner	19.8	6.9	23.8	15.4	16.5

**Multiple Response (total may exceed 100.0)*

Private Hospital/Clinics (64%) emerged as the most preferred facility for treatment of general ailments across all the four categories. For more than half of the families across the four respondent categories, a government health facility (District Hospital/Urban health Post/CHC/PHC) is also a preferred health facility for seeking treatment of general ailments of their family members. Noticeably, around one-fourth of the families instead of visiting any health facility or private practitioners, many a times prefer to take medicines directly from a chemist shop. Amongst nomads, quacks/unqualified practitioners is also a preferred treatment seeking point for around 24 percent of the families. One of the reasons for preferring a private hospital/ clinic in spite of being economically poor is the long waiting time in a government facility, which might mean loss of income as most of them are daily wage earners.

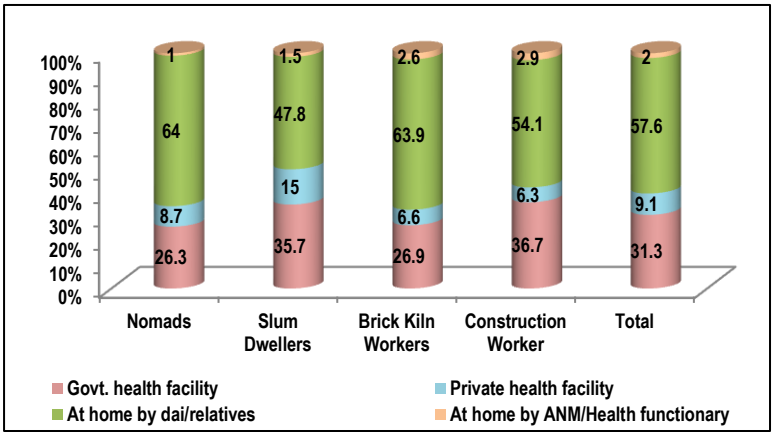
3.2 PLACE OF DELIVERY

Place of delivery is the most important indicator for the well being of a mother and a child. It also shows future prospects for the child's immunization. Only mothers of the reference child were enquired about the place of delivery at the time of birth of their youngest child.

Nearly 60 percent of the deliveries of the reference child i.e. the youngest child were home deliveries with nearly two-third of the deliveries among nomads and Brick Kiln workers categories being home deliveries.

As far as institutional deliveries is concerned, a little more than half of the mothers in slum dwellers category had institutional delivery of their youngest child (reference child) followed by construction workers (43%).

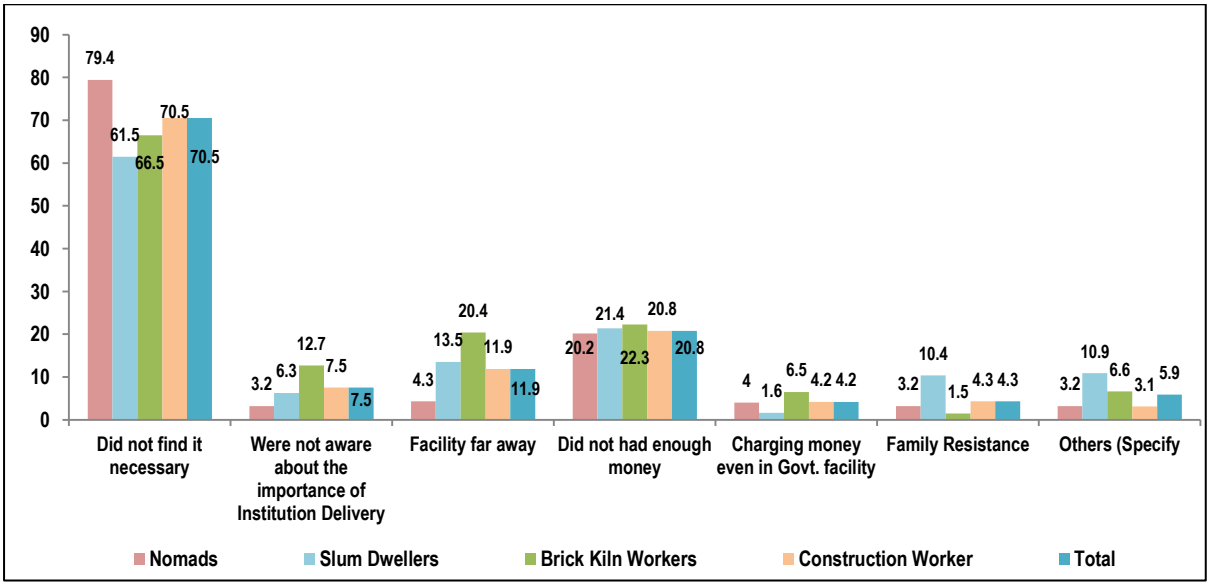
Graph 3.1: Place of Delivery during Birth of Youngest Child *(in %)*



It is interesting to note that while for treatment of general ailments families prefer private facilities but for child delivery, a government health facility is more preferred compared to a private one, probably due to higher expenses in private facilities.

On being enquired about the reason(s) for delivering child at home, the most prominent reason cited across the four respondent categories was 'They did not find it necessary'. Discussions with community members as well as opinion leaders and service providers brought out that lack of awareness about importance of institutional delivery is one of the key reasons behind not going for home delivery. Another reason, which emerged was the financial constraints. A sizeable percentage of mothers in brick kiln workers category also reported 'Facility far away' as a reason to opting for home delivery (Graph 3.2).

Graph 3.2: Reasons for Home Delivery



3.3 BREAST FEEDING PRACTICES

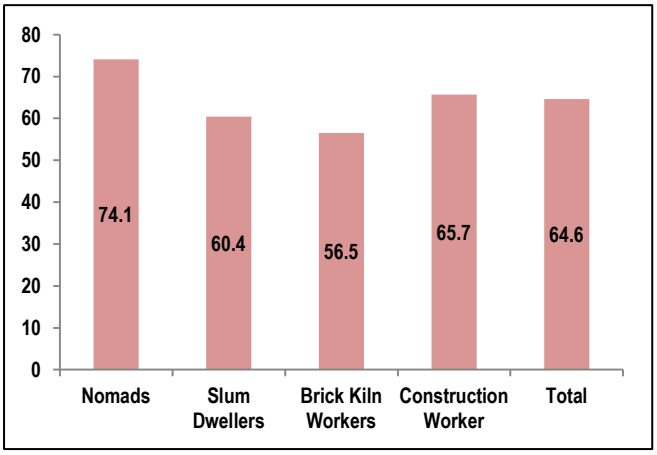
As the colostrum feeding is very important for an infant's health, mothers who had children up to 2 years of age were asked that when a woman should start feeding to the new born child. More than half of the women among nomads, slum dwellers and construction workers said that a child should be breast fed immediately after birth 'to feed yellowish thick breast milk'; amongst brick kiln the percentage of mothers responding so was lesser (46%). Noticeably, nearly one-third of the mothers in the brick kiln workers category said that a child should be breast fed after one day of birth.

Table 3.2: Awareness about Initiation of Breastfeeding *(in %)*

Indicator	Respondent Category				
Awareness about breast feeding	**Nomads**	**Slum Dwellers**	**Brick Kiln Workers**	**Construction Worker**	**Total**
n_1	**108**	**106**	**85**	**105**	**404**
Immediately after birth to feed yellowish thick breast milk	58.3	51.9	45.9	56.2	53.5
After 5 -6 hours	20.4	18.9	16.5	21.9	19.6
After one day	16.7	26.4	32.9	19.0	23.3
Any time after removing the yellowish thick breast milk	1.9	1.9	1.2	2.9	2.0
Others	2.8	.9	3.5	-	1.7

n_1= Number of families having the youngest child less than 2 years

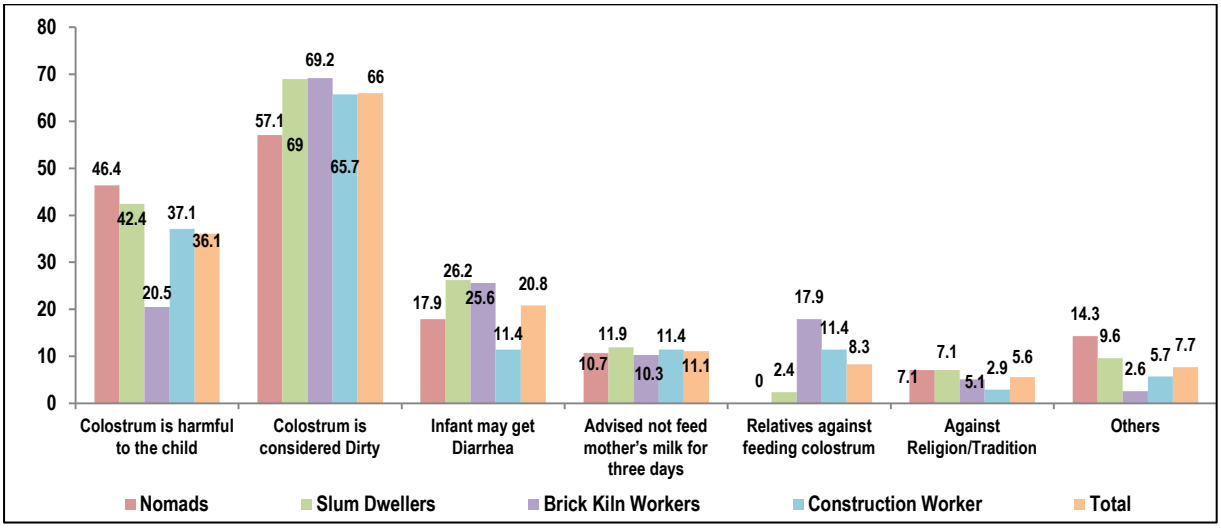
Graph 3.3: Colostrum Feeding Practice



Further to assess the extent of colostrum feeding being practiced among the four respondent categories, mothers of children up to 2 years of age were enquired about their own practice of colostrums feeding their youngest child. Across four categories, around two-third reported giving colostrums to their youngest child with highest percentage being reported amongst nomads (74%) and least amongst brick kiln workers categories (Graph 3.3).

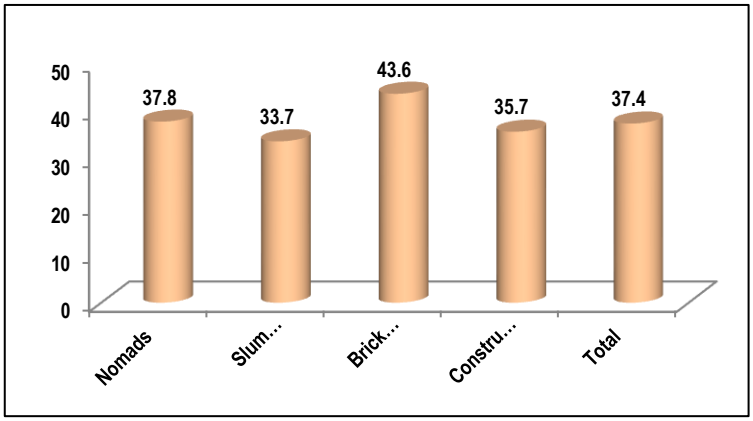
The most prominent reason reported by more than half of the women across all the four categories for not feeding the colostrum was '*colostrum is considered dirty*'. Noticeably, nearly 18 percent of the women among brick kiln workers also reported that their '*relatives were against feeding colostrum to the child*' and on further probing it emerged that the elders have the perception that colostrum is dirty and hence it is deliberately removed and not fed to the child. (Graph 3.4)

Graph 3.4: Reasons for not Feeding Colostrum



3.3.1 Duration of Exclusive Breast Feeding

Graph 3.5: Duration of Exclusive Breast Feeding *(in Days)*



It is advised to mothers to exclusively breast feed the new born for six months. In the study all such cases where infants were given any fluid such as water, honey even once were considered as non-exclusive breast feeding. As emerged, the exclusive breast feeding is very low. The average duration of exclusive breast feeding was found to be a little more than five weeks (38 days) only. Highest was around 7 weeks in brick kiln workers category while least was in slum dwellers- a little less than five weeks. As observed by the study team during discussions with mothers, in large number of cases, mothers/family members give something to the new-born immediately after birth as a ritual/custom practiced in the family.

3.4 DIARRHOEA

Table 3.3: Incidence of Diarrhoea in Youngest Child during last 2 weeks

Indicator	Respondent Category				
Incidence of Diarrhea	Nomads	Slum Dwellers	Brick Kiln Workers	Construction Worker	Total
N	*389*	*389*	*391*	*389*	*287*
	19.3	***23.4***	***16.6***	***14.4***	***18.4***

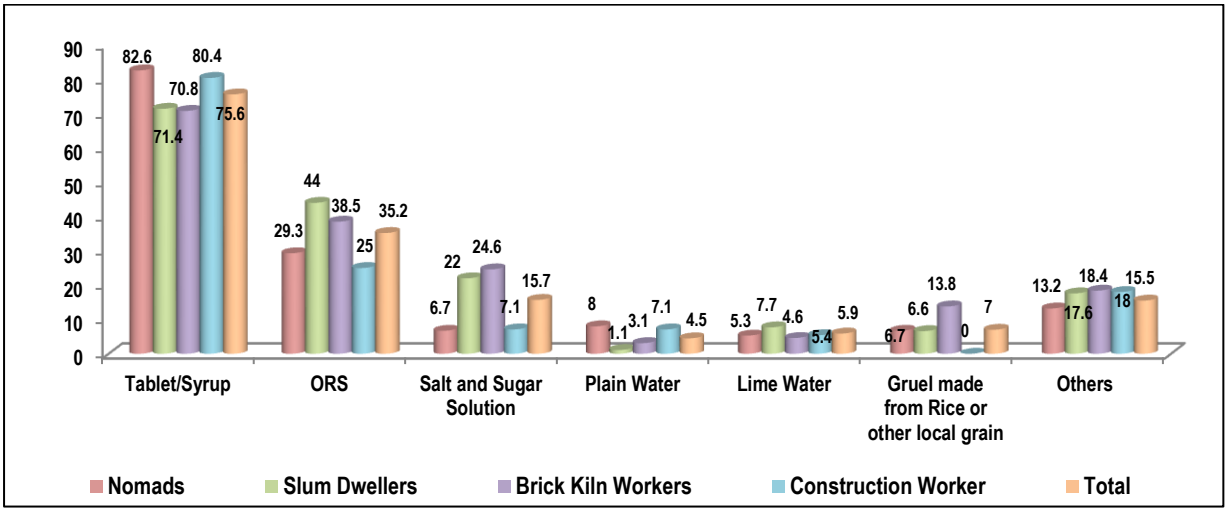
N Number of surveyed households

As diarrhoea is very closely associated with poor hygenic conditions, repondents were asked whether the reference (youngest) child had experienced any incidence of diarrhoea in the last two weeks. A little more than 18 percent of families across four respondent categories reported the youngest child having diarrhoea in the last two weeks, prior to the survey.

Noticeably, in spite of the slum dwellers in comparison to other three respondent categories have access to comparatively better facilties i.e drinking water, toilet and garbage disposal arrangement as well as follow better health related practices such as hand washing with soap, more incidences of diarrhoea are reported in the slum dwellers category. It is important to understand that more cases in slum dwellers category could be attributed to the fact that respondents from slums are more educated and have access to different mediums of information such as electronic/print media as well as frontline health workers in comparison to other respondent groups and hence they are more aware and familiar with the symptoms of diarrhoea.

Amongst those who reported (n=287) incidence of diarrhoea in the youngest child during the last two weeks, were enquired about the kind of treatment provided to the child for diarrhoea. A little more than three-fourth of them gave tablet/syrup to the child to stop the incidence of diarrhoea. It could be on Doctor's prescription/over the counter from a chemist shop or on suggestion of some quack/local practitioner as well.

Graph 3.6: Treatment provided to the Child having Diarrhoea



Solution made from ORS packet was also provided by around 35 percent of the families to the child suffering from diarrhoea. It was reported by highest percentage of families from slum dwellers (44%) followed by brick kiln workers (39%) categories. In other two categories it was less than 30 percent.

Another common treatment during diarrhoea is home-made salt-sugar solution, which was provided to the child having diarrhoea by a sizeable percentage of families from brick kiln (25%) and slum dwellers (22%) categories. In other two categories, it was around 7 percent only.

It can be concluded that as slums are usually situated in the midst of cities, the inhabitants have better access to the health facilities and hence there is greater use of ORS packets for treatment of diarrhoea incidences. Further to understand the comparatively better usage pattern of ORS and salt & sugar solution among brick kiln workers, data was analyzed to identify any trend. It emerged that while the maximum usage of ORS packets was among the families of brick kiln workers in Punjab (80%) followed by West Bengal, the salt & sugar solution was given more in West Bengal (80%).

CHAPTER-4: ROUTINE IMMUNIZATION AND POLIO

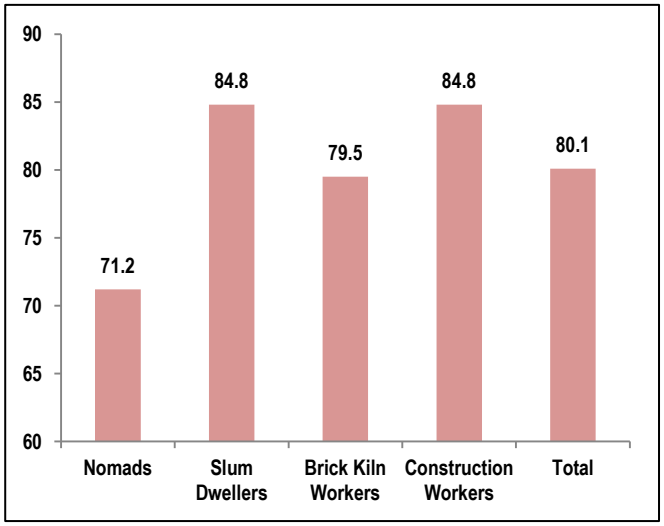
The present chapter discusses the awareness and practice of families related to Routine Immunization, Polio Vaccination with reference to the youngest child. Further, the chapter identifies their current and preferred source(s) of information for the same. This chapter is broadly categorized in to two sections-Sections A is on Routine Immunization and Section B is on Polio.

A: ROUTINE IMMUNIZATION

4.1 AWARENESS ABOUT ROUTINE IMMUNIZATION OF CHILDREN

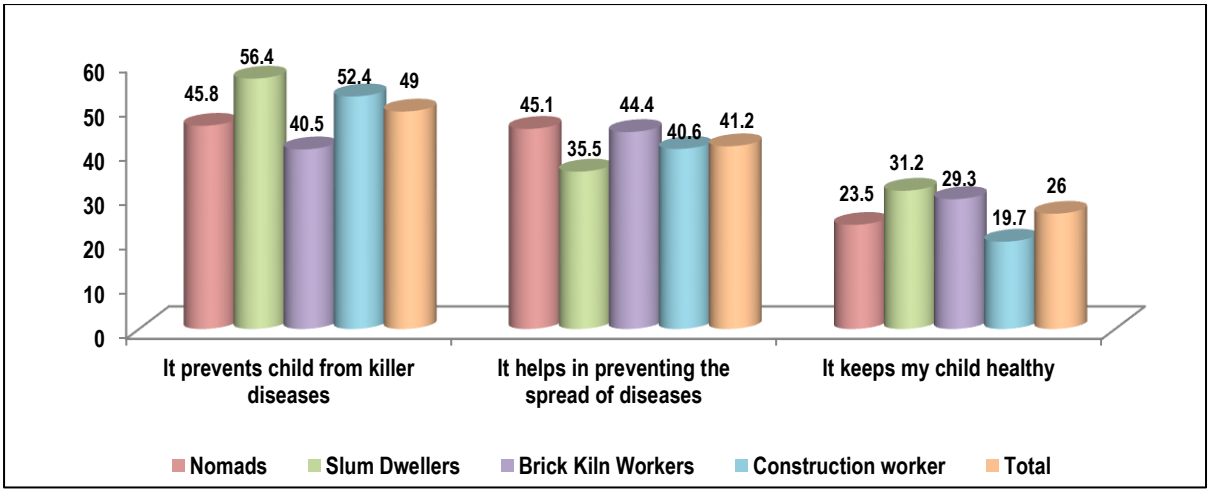
The surveyed families on being enquired-'whether they have heard of routine immunization of children'-the findings indicate that a little more than 80 percent of the total surveyed families are aware about Routine Immunization (Graph 4.1). Among the four respondent categories, the highest degree of awareness about Routine Immunization (RI) is amongst the families belonging to slum dwellers and construction workers (85% each) categories and it is lowest among the nomads (71%).

Graph 4.1: Awareness about Routine Immunization



Further, on the benefits of RI, more than half of the respondents among slums dwellers and construction workers (56% and 52% respectively) opined that 'it prevents children from killer diseases'. However, among the nomads and the brick kiln workers categories, around 45 percent of the respondents feel that RI helps in preventing the spread of diseases (Graph 4.2).

Graph 4.2: Awareness about benefits of Immunization

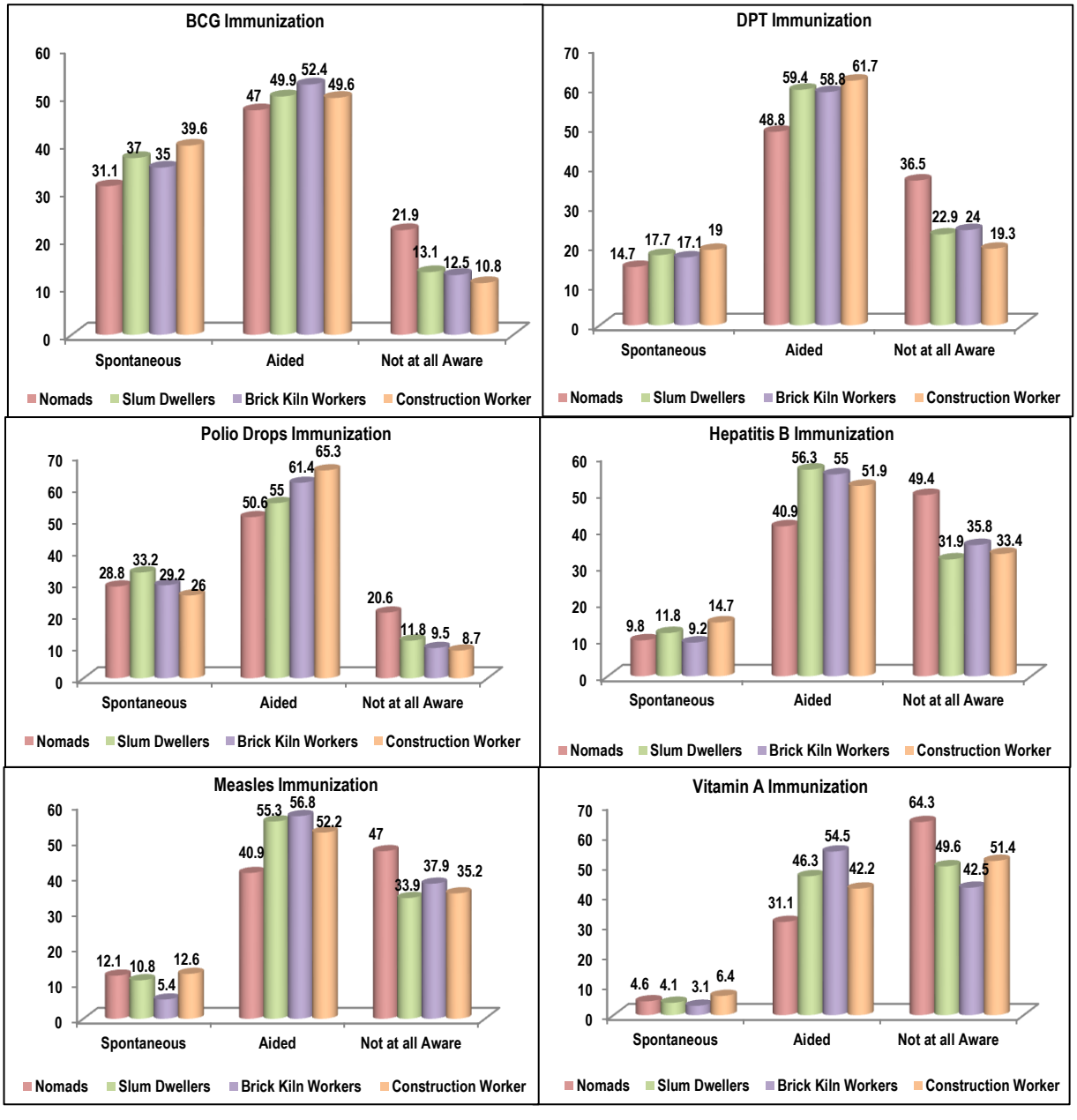


4.2 AWARENESS ABOUT DIFFERENT VACCINES GIVEN TO CHILD UNDER RI

To gauge the extent of awareness amongst the families, the respondents were specifically asked about the different vaccines given under RI. Initially, all spontaneous responses given by the respondent were recorded and in case the respondent could not mention the names of the disease for which vaccine(s) is given, then the respondent were given some clues/hints to help them remember/identify the names of the vaccines and response was noted as aided response. If the respondent could not recognize the vaccine even after giving the cue then the responses was record as not at all aware about that particular vaccine.

Graph 4.3 gives a detailed vaccine wise awareness status across the four respondent categories. As emerges, spontaneous recall about BCG vaccine is comparatively high as compared to other five vaccines; the least is for Vitamin A. Among the four respondent categories, awareness about six vaccines is comparatively better in slum dwellers followed by construction workers.

Graph 4.3: Vaccine wise Awareness Status



Analysis of aided response suggests that a higher percentage of respondents across four categories could recall vaccines given against six preventable diseases identified under Routine Immunization schedule.

Although compared to other five vaccines, the awareness about Polio drops (spontaneous + aided combined) is around 80-90 percent across four respondent categories but it is also noticeable that majority could not recall it spontaneously. In spite or regular polio vaccination drive taking place, only around 30 percent respondents across the four categories could spontaneously tell about the Polio vaccine/drops.

The percentage of families across four respondent categories who could not mention even after giving clue i.e. 'not aware at all' is comparatively higher for the three vaccines namely, Vitamin A, Hepatitis B and Measles vaccines is very low.

Across six vaccines, the least aware respondent category is nomads. Comparatively, the construction workers and slum dwellers have greater awareness about the vaccines as compared to the other two categories of respondents. This could be due to the better access of construction workers and slum dwellers to the health facilities and service providers as these two categories live in the midst of city and come into regular contact with a diverse group of people and hence can share their experience and learn from one another. It is also clear from the study findings that the educational status of these two categories of respondents is higher than that of the nomads and the brick kiln workers. These are further corroborated by the findings of the discussions with the community members and opinion/community leaders.

4.3 AVAILABILITY OF IMMUNIZATION CARD

Possessing immunization card for a child aged 0-5 years, to an extent indicates the possibility of child vaccinated against preventable diseases as per RI schedule. On request to show the immunization card of the reference child, a little more than one-sixth of the families showed the card to the study team member. Another 28 percent families informed that the immunization card for the child is available but were not able to show at the time of visit of the field team member due to one reason or the other. Around 53 percent families have not made the Immunization card for the child.

Among the respondents who showed the immunization card, the highest percentage was from the families of slum dwellers category (29%). However, the highest percentage of respondents who said to possess the

Table 4.1: Availability of Immunization Card

Indicator	Respondent Category				
Immunization Card	Nomads	Slum Dwellers	Brick Kiln Workers	Construction Worker	Total
N	389	389	391	389	1558
Card Available and seen*	14.4	28.5	15.3	11.8	17.5
Card Available but not shown**	18.8	26.2	36.2	30.8	28.0
Card not made	65.0	44.5	46.5	57.1	53.3
Don't Know	*1.8*	*.8*	*2.0*	*.3*	*1.2*

N= Number of Households

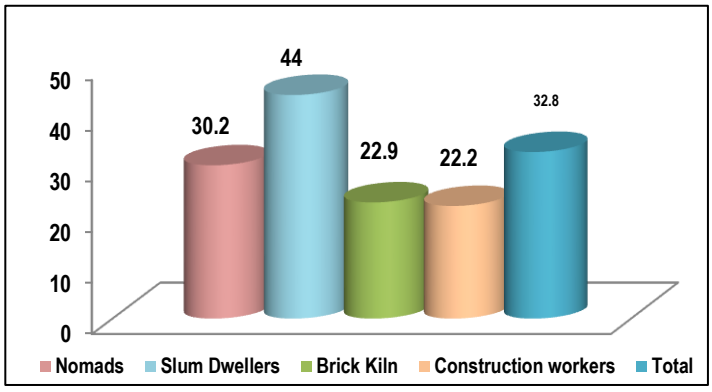
Immunization Card but could not show it to the investigators when demanded belonged to the brick kiln category (36%) followed by the construction workers (31%). Nearly two-third (65%) of the nomads did not possess any Immunization Card.

During the discussion with community members at brick kiln and construction sites, it emerged that the families usually keep the immunization cards at their native place as they think that they will lose the cards due to the temporary stay at the current location and nature of work. They also feel that in case they have to change their work place or move from one place to another and they fear that this may spoil/damage their card. More, some participants during discussion also shared that as the child is registered at their native place, the immunization card will not be valid for availing the services at their current location.

4.4 VACCINATION STATUS OF CHILDREN

Out of the total 1558 families surveyed across four respondent categories, only 273 families had Immunization Card available with them and shown to the study team at the time of visit. Based on the entry made in the Immunization card, analysis of the vaccination status of the reference children is carried out. As per the immunization schedule, it is expected that all children above 9 months of age must have received the vaccines required for achieving the fully immunized status. In the present study, 189 families have children aged 9-59 months. For calculating the fully immunized status, one point is given for each shot/dose of vaccine (1 BCG+3 DPT+3 POLIO+3 Hepatitis+1 Measles+1 Vitamin A). A fully immunized child will secure a score of 12.

Graph 4.4: Complete Immunization



Based on the above-discussed method of calculation, the highest percentage of fully immunized children is among the slum dwellers category (44%), followed by nomads (30%), brick kiln workers (23%) and construction workers (22%). The reason for high percentage of fully immunized children among the slum dwellers as compared to other three respondent categories could be attributed to better access to health facilities and higher degree of awareness about RI among them. This can also be seen in relation with higher educational attainment of the parents of the reference child.

Further to understand the immunization status of children aged less than 9 months, the type and number of vaccines received by the child as per age has been taken into consideration. There were 84 children in this age group out of the 273 children whose immunization card are shown to the study team.

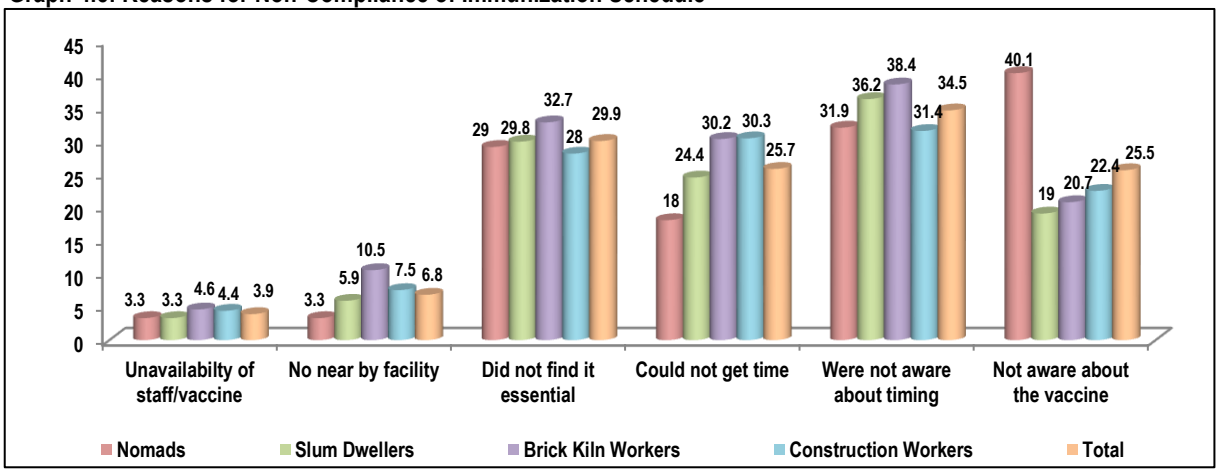
Table 4.2: Age appropriate Immunization Status of Children 0-8 months *(as per Immunization Card)*										
Indicator	**BCG**	**DPT**			**Polio**			**Hepatitis**		
Complete Immunization as per Age	**BCG**	***I***	***II***	***III***	**I**	**II**	**III**	**I**	**II**	**III**
n1	84	15	10	59	15	10	59	15	10	59
In Numbers (in %)	68 (81)	6(*)	4(*)	21(35.6)	8(*)	4(*)	21(35.6)	4(*)	4(*)	21(35.6)
n1= Total number of children as per age eligible to get the vaccine shot/dose *(*)-Percentage not given because n1 is less than 30*										

The findings show that 81 percent children (out of 84 children aged less than 9 months) had received BCG vaccine while in case of other vaccines the proportion is very less. Relatively, higher percentage of children getting BCG vaccination could be because it is given at the time of birth and most of the deliveries are institutional deliveries.

4.5 REASONS FOR NON-COMPLIANCE OF IMMUNIZATION SCHEDULE

Among the reasons mentioned by the parents of the reference child for not giving the required vaccine to the child as per the child's age, majority said that they were not aware of the immunization schedule i.e. at what age the relevant vaccine is given. A substantial proportion of nomads are not aware about the vaccines itself. Lack of awareness about the importance of child immunization is also evident with around 30 percent mentioning- 'did not find the vaccination essential' while more than one-fourth could not get time to get the child vaccinated against life-threatening diseases (Graph 4.5).

Graph 4.5: Reasons for Non-Compliance of Immunization Schedule



4.6 COUNSELING ABOUT VACCINES

Around two-third of the families reported receiving counseling about vaccines to be given to a child from time to time as per the RI schedule. Among the four respondent categories, 75 percent construction workers, 68 percent slum dwellers, 65 percent brick kiln workers and 53 percent nomads have reported to

Table 4.3: Vaccines about which received counseling					
Indicator	**Respondent Category**				
Counseling provided about	**Nomads**	**Slum Dwellers**	**Brick Kiln Workers**	**Construction Workers**	**Total**
n1	**207**	**265**	**252**	**293**	**1017**
BCG	78.7	81.1	73.4	82.6	79.2
DPT	42.5	49.4	45.6	50.9	47.5
Polio Drops	*67.6*	*69.4*	*77.4*	*77.1*	*73.3*
Hepatitis B	4.3	2.3	.8	3.1	2.6
Measles	32.9	31.3	21.0	29.7	28.6
Vitamin A	7.7	6.0	3.6	5.1	5.5
n1- Number of respondents who were given advise about vaccines					

receive counselling from the service providers about the vaccines that should be given to the child before the completion of one year of age. Based on recall, the respondents informed about the vaccines on which the advice was given (Table 4.3).

As emerges, majority were counselled for BCG followed by Polio. For other vaccines, most of the respondents did not recall being informed by service provider to get the child vaccinated. This could be probably due to two reasons- one, respondents could recall only two fairly well known vaccines- BCG (given immediately/within a month) and Polio; and two- the follow-up visits/interaction by the service providers with the family/mother is not regular except during polio rounds.

4.7 PREFERRED FACILTIES

Easy accessibility, availability of services and satisfaction with the service delivery are important factors to encourage families to avail any service. Respondents were enquired about the most preferred places where they take their child for immunization. To determine the three most preferred facilities among the list of facilities chosen by the respondents, each facilty was given weights and their cumulative score was calculated - the higher the score is, more preferred the facility is.

Table 4.4: Preferred Facility based on Cumulative Score

Indicator	Respondent Category				
Preferred Facility for Vaccination	Nomads	Slum Dwellers	Brick Kiln Workers	Construction Worker	Total
	Cumulative Sum				
District/ Municipal Hospital	**307**	284	**-**	**390**	1017
CHC/PHC/UHP	219	**296**	304	246	**1153**
Anganwadi Kendra	153	230	**310**	303	996
Sub Centre	-	-	213	-	-

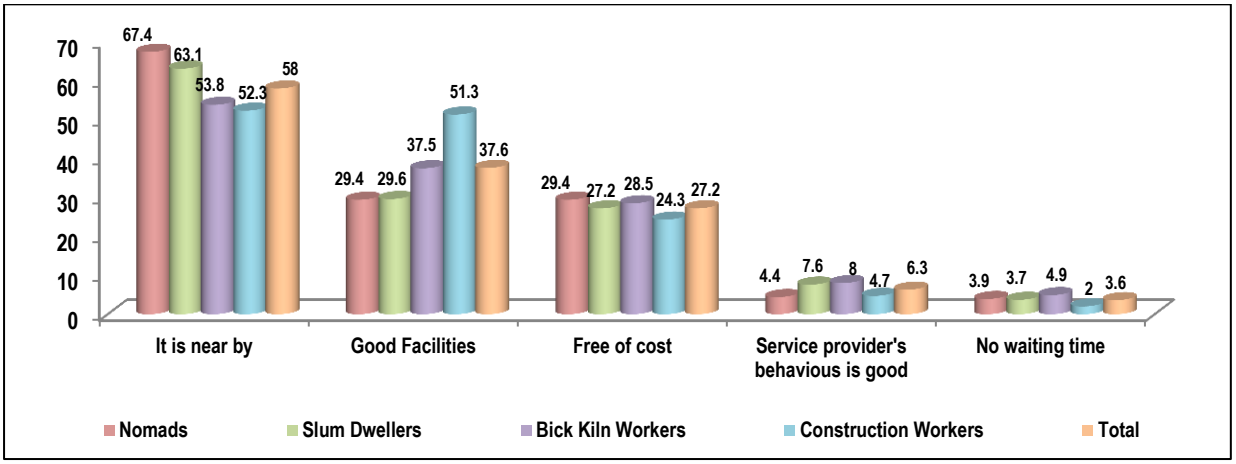
The most preferred facilty is urban health posts/CHC/ PHC followed by a district/ municipal hospital and Aanganwadi Centre (AWC) for all the four categories.

Among the nomads and the construction workers, the Governmnet Hospital/Dispensary is the most preferred facility while for the families in the slum dwellers category, urban health post/urban dispensary (UHP) is the most preferred one. For the families in the Brick Kiln workers category, Anganwadi Kendra is the most preferred place to take their children for immunization.

4.7.1 Reason for preferring a facilty for Immunization of child

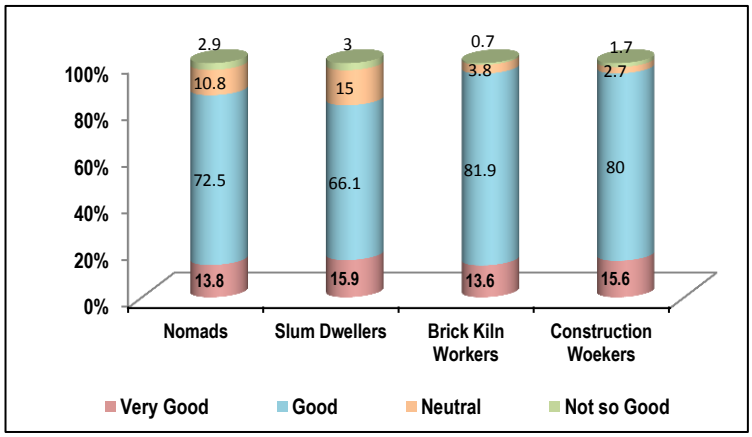
One of the most important reasons for preferring a facility is its proximity from the place of stay. Nearly two-third families among the nomads and the slum dwellers categories prefer a facility because it is nearer to their place of stay. The next important reason is 'availability of good facilities at the centres', which is reported by around 38 percent of the families. For economically vulnerable families, free of cost service is also an influencing factor for preferring a health facility for child's immunization (Graph 4.6).

Graph 4.6: Reasons for Choosing a Facility for Vaccination



4.8 SATISFACTION WITH HEALTH FACILITY/SERVICE

Graph 4.7: Behaviour of Service Provider

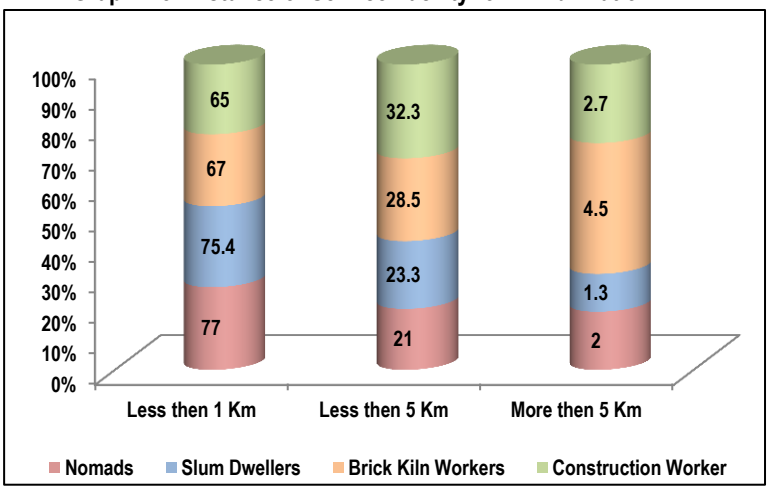


Behaviour of service providers at health facility along with the distance of the facility, availability of vaccines, waiting time in the facility and fee charged at the facility are some important indicators to gauge the extent of satisfaction with the health facility/service available to the target population.

An overwhelming percentage of the respondents across four respondent categories opined about the **behaviour of service providers** as 'good' or 'very good'(Graph 4.7).

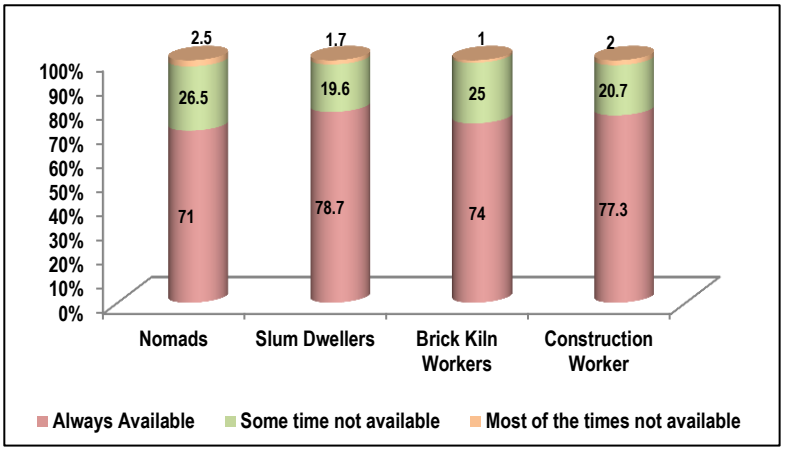
In terms of **distance**, more than three-fourth of the families among nomads and slum dwellers said that facility for Immunization is less that a kilometre from their place of stay. However, nearly 30 percent of birck kiln and construction workers said that facilty is in the range of 5 k.m. from their house.

Graph 4.8: Distance of Service Facility for Immunization



On **availability of vaccines**, nealry three-fourth of the respondents across all respondent categories said that vaccines are always available whenever go to service facility.

Graph 4.9: At Facility Vaccines are



Similarly, for around 64 percent of the families, the **waiting time at the centre** to get the child vaccinated is around 10-15 minutes while for another 17 percent of the families, the service is provided immediately and hence they opt for the preferred centres.

Vaccination service is available free of cost at government hospital, which was confirmed by more than 90 percent of the families across four respondent categories; less than 5 percent reportedly paid fee for vaccination at a government facilty.

4.9 ACCOMPANIMENT BY FAMILY MEMBER DURING CHILD'S VACCINATION

Table 4.5: Who accompany the Child for Vaccination *(in %)*

Indicator	Respondent Category				
Accompaniment	Nomads	Slum Dwellers	Brick Kiln Workers	Construction Worker	Total
n1	204	301	288	300	1093
Mother	79.9	71.4	70.1	63.7	70.5
Both the parents	14.2	15.6	17.4	27.7	19.1
Father	17.6	13.0	21.9	12.3	16.0
Grand parents	5.4	9.3	7.3	3.0	6.3
Neighbour/ Relative	0.5	6.0	2.4	2.0	2.9

n1=Number of families who take their child for vaccination

To understand the extent of involvement of different family members in getting the child vaccinated, information on who generally accompanies/ takes the child for vaccination was sought. In more than 70 percent of the cases, mothers accompany the children among nomads, slum dwellers and brick kiln workers categories for vaccination; in case of construction workers, mothers accompany in majority of cases but in 28 percent families, both the parents generally accompany the child during vaccination. The percentage of father accompanying the child for vaccination is low across all the categories.

4.10 SOURCE OF INFORMATION ABOUT ROUTINE IMMUNIZATION

As one of the important objectives of the study is to develop better communication strategies for these groups through effective sources of communication, respondents were asked about current as well as preferred sources of information about Routine Immunization.

For more than one-third of the families, government doctor is the current source of information about RI, probably during visits for Ante-Natal Care (ANC) check-ups or during one of the visits for vaccination, are informed for next round of vaccination. Anganwadi Worker (AWC) and Vaccinator are also important sources of information. For families in nomads category, government doctor and vaccinator are the key source of information while for nearly 40 percent of slum dwellers get information about different vaccines from Television. Highest proportion of Brick Kiln Workers get information from AWW followed by government doctor and vaccinator. ANM is also a major source of information about RI for the brick kiln workers. It is important to mention that AWW or ANM are a major source of information, particularly in the case of brick kiln workers and construction workers categories, at their native places and not in the brick kiln or construction sites while in case of slum dwelers it is mainly at the slums. The major source of information for construction workers are polio vaccinators and Government Doctors. As informed by participants and service providers, generally at health centres/Anganwadi centres, a day in a week is fixed for immunization of children, which is communicated to the community by the frontline service providers.

Table 4.6: Current Source of Information about Routine Immunization *(in %)*

Indicator	Respondent Category				
Source of Information	**Nomads**	**Slum Dwellers**	**Brick Kiln Workers**	**Construction Worker**	**Total**
N	**389**	**389**	**391**	**389**	**1558**
Government Doctor	**29.3**	35.7	32.2	39.1	**34.1**
AWW	22.4	36.5	**36.1**	38.3	33.3
Polio Vaccinator	28.3	22.4	29.2	**41.1**	30.2
T.V.	15.2	**39.6**	23.8	29.6	27.0
Friends/Relatives / Neighbours	24.7	15.7	23.7	30.8	23.6
ANM	7.5	15.2	28.4	16.2	16.8

For drawing future communication plans and identifying appropriate communication mediums, beside the current sources of information, preferred sources of information about RI were also enquired about.

Table 4.7: Preferred sources of information for RI*

Indicator	Respondent Category				
Preferred Source of Information	**Nomads**	**Slum Dwellers**	**Brick Kiln Workers**	**Construction Worker**	**Total**
N	**389**	**389**	**391**	**389**	**1558**
Vaccinator	**801**	715	644	**805**	**3001**
Government Doctor	777	653	537	**751**	**2718**
AWW	*575*	769	**750**	*576*	*2670*
T.V.	526	**773**	*624*	*632*	*2555*
ANM	219	276	571	329	1395
Friends/Relatives/ Neighbours	330	134	189	316	969

**based on weighted Cumulative Score*
N= Total number of surveyed households

The findings bring out that vaccinators, who visit door-to-door during polio rounds are the most preferred source for communicating about the vaccines, age appropriate time for each vaccine dose as per RI schedule. The next preferred source is government doctors because information shared by the doctors are considered more reliable. Easy access to AWW could be the reason for them being identified as another most preferred source of information, particularly for families in brick kiln workers category, as most of the families visit their native places after almost every six months. For slum dwellers, easy access to television is the key reason for it being the most preferred source to know about Routine Immunization.

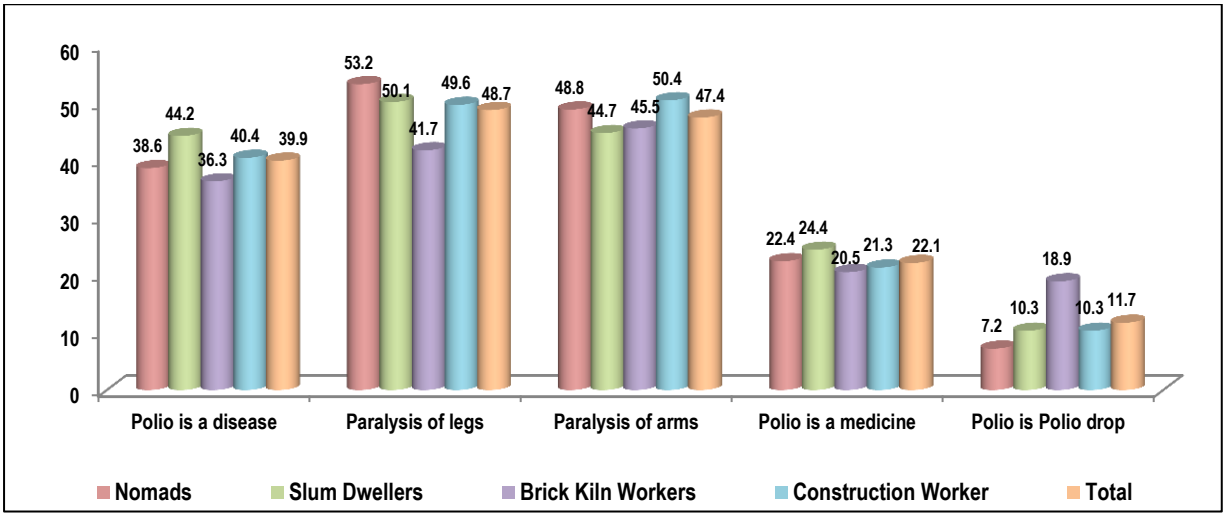
B: POLIO

To avoid any threat to polio eradication programme which has made India a 'polio free' nation due to reoccurence of polio cases, it is important to assess the level of awareness about polio, its symptoms and related issues.

4.11 AWARENESS ABOUT POLIO

Repondents knowledge about Polio was assessed by posing a direct and simple question-'What is Polio'? The two most common responses across four respondent categories is 'paralysis of legs' and 'paralysis of arms'; which are mentioned by nearly half of the repondents among nomads, slum dwellers and construction workers categories, and slightly less by nomads. Due to polio eradication programmes being popularly called as polio rounds or OPV given as 'polio drops', more than 20 percent of the repondents across all categories identified "Polio as a Medicine". Very few identified polio as a viral disease that causes paralysis.

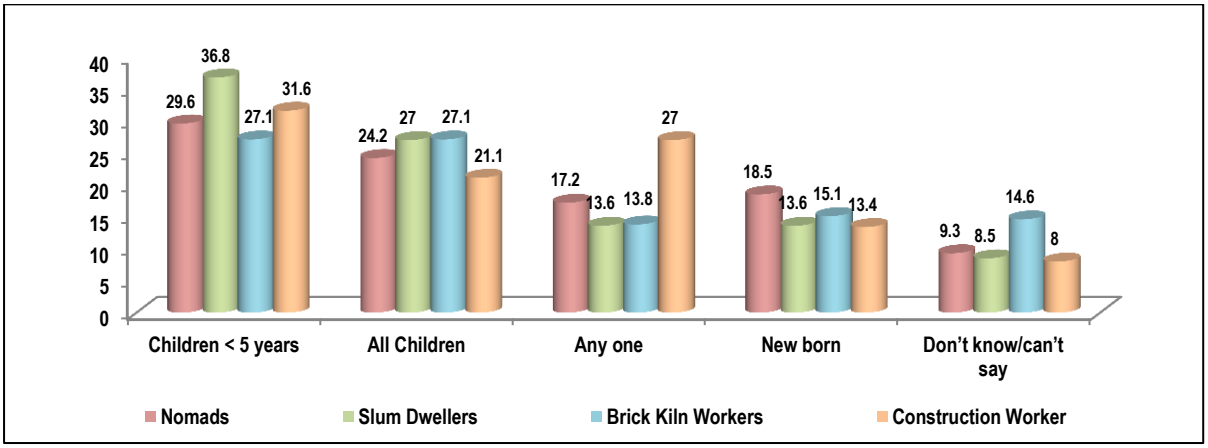
Graph 4.10: Knowledge about Polio



4.12 AWARENSS ABOUT MOST AFFECTED ONES BY POLIO

Further on the extent of awarness about who are more susceptible to polio, it emerged that 'all children' and 'children less than 5 years of age' are reported by a sizeable percentage of respondents across four categories. Nearly one-third of the repondents among slum dwellers and construction workers said that polio mainly affects children less than five years old. A slightly lesser percentage of respondents among the nomads reported so. A significant percentage of the nomads (19%) and brick kiln workers (15%) mentioned that polio can happen to a new born child, however this percentage was little less (13%) among slum dwellers and construction workers.

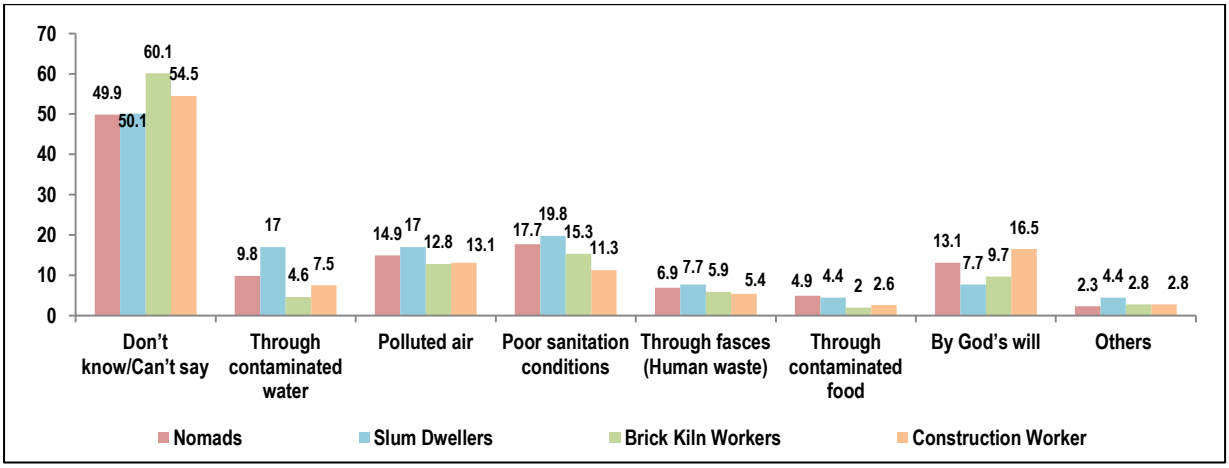
Graph 4.11: MOST affected ones by Polio



4.13 MODE OF POLIO TRANSMISSION

On mode of transmission of Polio, half of the respondents across all the categories are unaware. Slightly better awareness was found among respondents covered under slum dwellers category but even among them less than 20 percent identified contaminated water and poor sanitation conditions. Polio spreads through fasces/human wastes was identified by around 7 percent of the respondents.

Graph 4.12: Mode of transmission of Polio



4.14 PREVENTION OF POLIO

Is polio preventable? Around two–third of the total respondents covered are aware that polio is preventable; highest was in the construction worker category(75%) while the respondents belonging to brick kiln categories were the least informed about the fact the polio is preventable (61%).

Table 4.8: Knowledge about prevention of polio *(in %)*

Indicator	Respondent Category				
	Nomads	Slum Dwellers	Brick Kiln Workers	Construction Worker	Total
N	389	389	391	389	1558
Polio is Preventable	65.6	63.8	60.6	75.3	66.3

Table 4.9: Knowledge about ways to prevent polio *(in %)*					
Indicator	**Respondent Category**				
Polio can be prevented...	**Nomads**	**Slum Dwellers**	**Brick Kiln Workers**	**Construction Worker**	**Total**
n	**255**	**248**	**237**	**293**	**1033**
Through oral polio vaccination *(POLIO DROPS)*	92.2	91.5	92.8	96.2	93.3
Through injections	12.5	12.1	16.9	20.1	15.6
By God's grace	2.7	2.0	1.3	-	1.5
n=Households who are aware that polio is preventable					

Amongst those who were aware that polio is preventable, more than 90 percent of them said that polio can be prevented by giving polio drops to the children. Less than 2 percent of the respondents also felt that polio is preventable only by god's grace.

4.15 KNOWLEDGE ABOUT AGE UP TO WHICH POLIO DROP SHOULD BE GIVEN

On the age up to which children should get polio drops, more than 80 percent respondents mentioned that a child should get polio drops up to five years of age while another 5 percent mentioned 4 years as the age up to which a child should get polio drops.

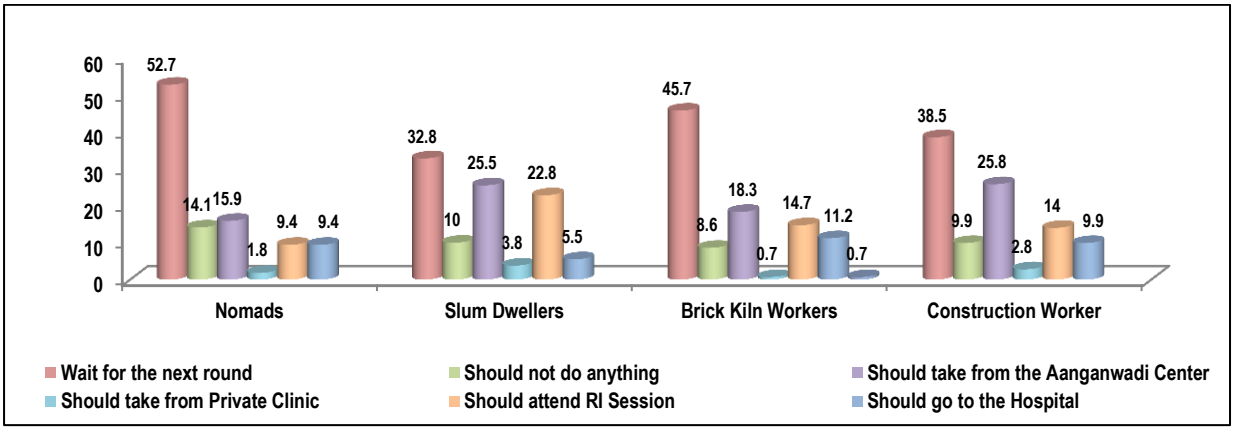
Table 4.10: Age up to which a child should get polio drops *(in %)*					
Indicator	**Respondent Category**				
Age	**Nomads**	**Slum Dwellers**	**Brick Kiln Workers**	**Construction Worker**	**Total**
N	**389**	**389**	**391**	**389**	**1558**
Up to 1year	-	0.5	1.5	-	0.5
Up to 2 years	-	0.3	0.3	0.3	0.2
Up to 3 years	1.8	1.0	1.5	0.8	1.3
Up to 4 years	6.4	3.1	3.6	8.5	5.4
Up to 5 years	**81.0**	**84.3**	**82.6**	**81.5**	**82.3**
5+ years	3.1	5.1	5.1	5.7	4.7
Up to any age	2.6	0.5	0.5	1.0	1.2
Don't now/Can't say	5.1	5.1	4.9	2.3	4.4
N= Number of surveyed housholds					

4.16 HARMFULNESS OF MISSING POLIO DOSE

Further enquiry about need for giving polio drops at repeated intervals, more than 80 percent of respondents across all the four categories also said that there is a need to give repeated dose of polio drops. On being asked whether it is harmful if the child misses polio drops even once, around three-fourth of the respondents across all the categories answered in the affirmative.

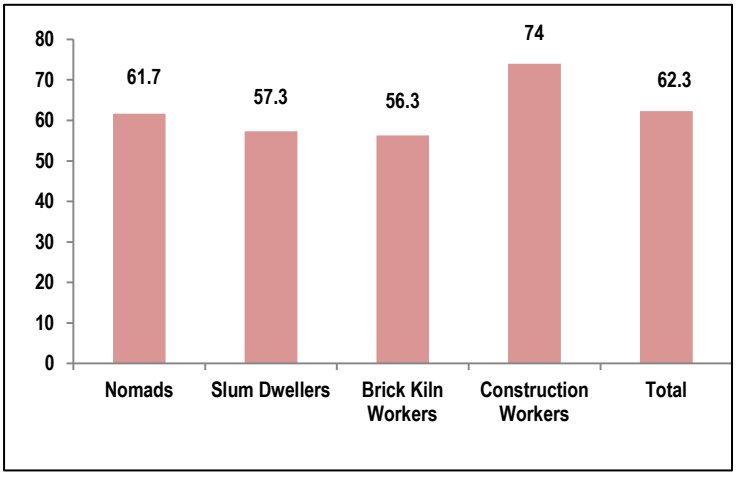
On action to be taken in case the child misses polio drops, 52 percent respondents among nomads and 47 percent among brick kiln workers feel that the parents can wait till the next round. While amongst slum dwellers and construction workers categories, more than one-third of the respondents opined that the parents should visit either a AWC (26% each) or a public/private hospital to give the polio dose to the child.

Graph 4.13: Measures to be taken if a child misses polio dose



4.17 POLIO DROPS TO A SICK CHILD

Graph 4.14: Polio drops to a sick child-YES *(in %)*

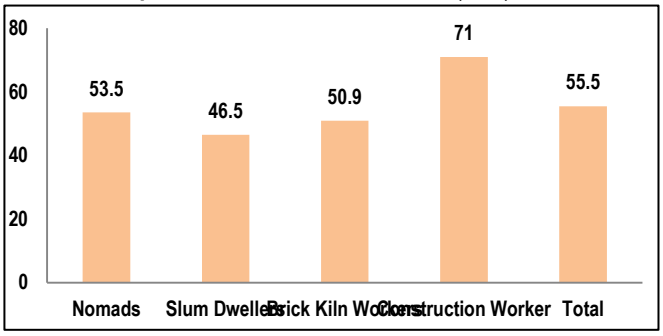


The study finding shows that majority of the respondents, nearly 60 percent or more believe that a child should be given polio drops even when s/he is sick; highest percentage was amongst construction workers category (74%).

4.18 POLIO IS CURABLE

On another aspect- is polio curable, nearly half or more of the respondents among nomads, slum dwellers and brick kiln workers said that polio is curable, while 71 percent of the respondents in construction workers' category feel that polio is curable.

Graph 4.15: Polio is Curable- YES *(in %)*



4.19 POLIO DROPS ADMINISTERED

Information was gathered on practice related to OPV drops being administerd in the last Polio round to the reference child and wehther they ever refused to get the child vaccinated against polio.

4.19.1 In last round

Nearly 96 percent of the respondents across all the categories informed that the polio vaccinators visited their house to give OPV drops to the child. Around 98 percent of the respondents across all the categories were also able to recollect the month in which the last polio round was organized prior to the visit of the CMS Social study team members i.e April 2012. As reported, approximately 95 percent of the repondents had got polio drops administered to their child in this round.

4.19.2 Refusal of Polio Drops ever

Out of 1558 families across all the four categories only 2 percent respondents have ever refused administering of polio drops to their child. Most of them informed that they refused to give the polio drops to the child as the child was sick and they were afraid that it might harm their child.

4.20 FAMILY'S ROLE IN PROVIDING POLIO DROPS TO THE CHILD

Table 4.11: Family role in administrating polio drops *(in %)*					
Indicator	**Respondent Category**				
Family's role	**Nomads**	**Slum Dwellers**	**Brick Kiln Workers**	**Construction Worker**	**Total**
	389	**389**	**391**	**389**	**1558**
Supportive	97.4	92.0	96.4	96.9	95.7
Resistant	.8	2.1	2.6	.8	1.5
Neutral	1.8	5.9	1.0	2.3	2.8

More than 90 percent of the respondents across the four categories shared that their family has been supportive about administering polio drops to the child. Around 6 percent respondents among the slum dwellers category feel that their family members have a neutral stand on child's being administered polio drops i.e. are neither supportive nor opposed to providing polio drops to the children.

4.21 SOURCE OF INFORMATION ON POLIO

4.21.1 Current Source of Information

Respondents were asked about their current and preferred sources of information about Polio to develop efficient communication strategies for them, which in turn will contribute towards ensuring India's status as a 'Polio-free' nation. As emerges (Table 4.12), polio vaccinators are the primary source of information on polio, for all the categories, primarirly due to their visits during repeated rounds of Pulse Polio Campaign to administer polio drops to children below 5 years of age. AWW, one of the first contacts for the families, particularly in villages and slums, as far as maternal and child health is concerned is also an important source of information for many families along with TV. Television spot/advertisement-*ek boond jindagi ki*- to encourage families to have child vaccinated against polio is an factor towards creating awareness about Polio.

Table 4.12: Current sources of information on Polio *(in %)*					
Indicator	**Respondent Category**				
Source	**Nomads**	**Slum Dwellers**	**Brick Kiln Workers**	**Construction Worker**	**Total**
N	**389**	**389**	**391**	**389**	**1558**
Polio Vaccinator	**78.4**	**67.4**	**70.8**	**72.5**	**72.3**
AWW	21.3	40.1	32.7	35.0	32.3
Television	*24.4*	*48.1*	*24.6*	*29.3*	*31.6*
Government Doctor	26.0	30.6	25.1	36.0	29.4
Friends/Relatives/ Neighbours	28.0	16.5	18.9	27.2	22.7
N = Number of households					

4.21.2 Preferred source of information

Table 4.13: Preferred sources of information on Polio*				
Indicator	**Respondent Category**			
Source	**Nomads**	**Slum Dwellers**	**Brick Kiln Workers**	**Construction Worker**
N	**389**	**389**	**391**	**389**
Vaccinator	**1135**	**961**	**1135**	**1038**
Government Doctor	642	549	410	659
ANM	-	215	412	-
AWW	523	690	627	536
TV	514	799	565	648
Friends/Relatives/ Neighbours	347	-	-	312
**based on weighted Cumulative Score* *N= Total number of surveyed households*				

Respodents were asked to rank their preferred sources of information about polio (maximum 5) to identify the most and thereafter preferred source. Due to their frequent interaction with the families, particularly during pulse polio rounds, the most prefered source of information on polio across all categories is the Vaccinator. The

second preferred source however, varies across the categories. While government doctors has been chosen as the second preference by the majority of the respondents in nomads and construction workers cateogries, it is television in the case of slum dwellers and Anganwadi workers (AWW) for families in brick kiln category. From FGDs and IDIs it has been found that the preference across the categories is largely influenced by easy accessibility/location of the sources as well as availability, as in the case of TV for slum dwellers.

Annex 1

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Annex 1: State wise state wise distribution of sample by four respondent categories

State	Nomads	Slum Dwellers	Brick Kiln Workers	Construction Worker	Total
	N	N	N	N	
North East Delhi	75	77	0	90	242
Faridabad	72	20	34	20	146
Gurgoan	19	18	28	49	114
Jhajjar	21	19	29	19	88
Panipat	19	19	29	19	86
Jalandhar	20	21	29	20	90
Ludhiana	16	32	28	10	86
Mohali	40	10	35	60	145
Patiala	18	16	42	22	98
24 Parganas South	0	20	25	0	45
Howrah	0	20	25	0	45
Kolkata	0	20	5	0	25
Murshidabad	0	20	25	0	45
Greater Mumbai	61	40		52	153
Thane	28	37	57	28	150
Total	389	389	391	389	1,558