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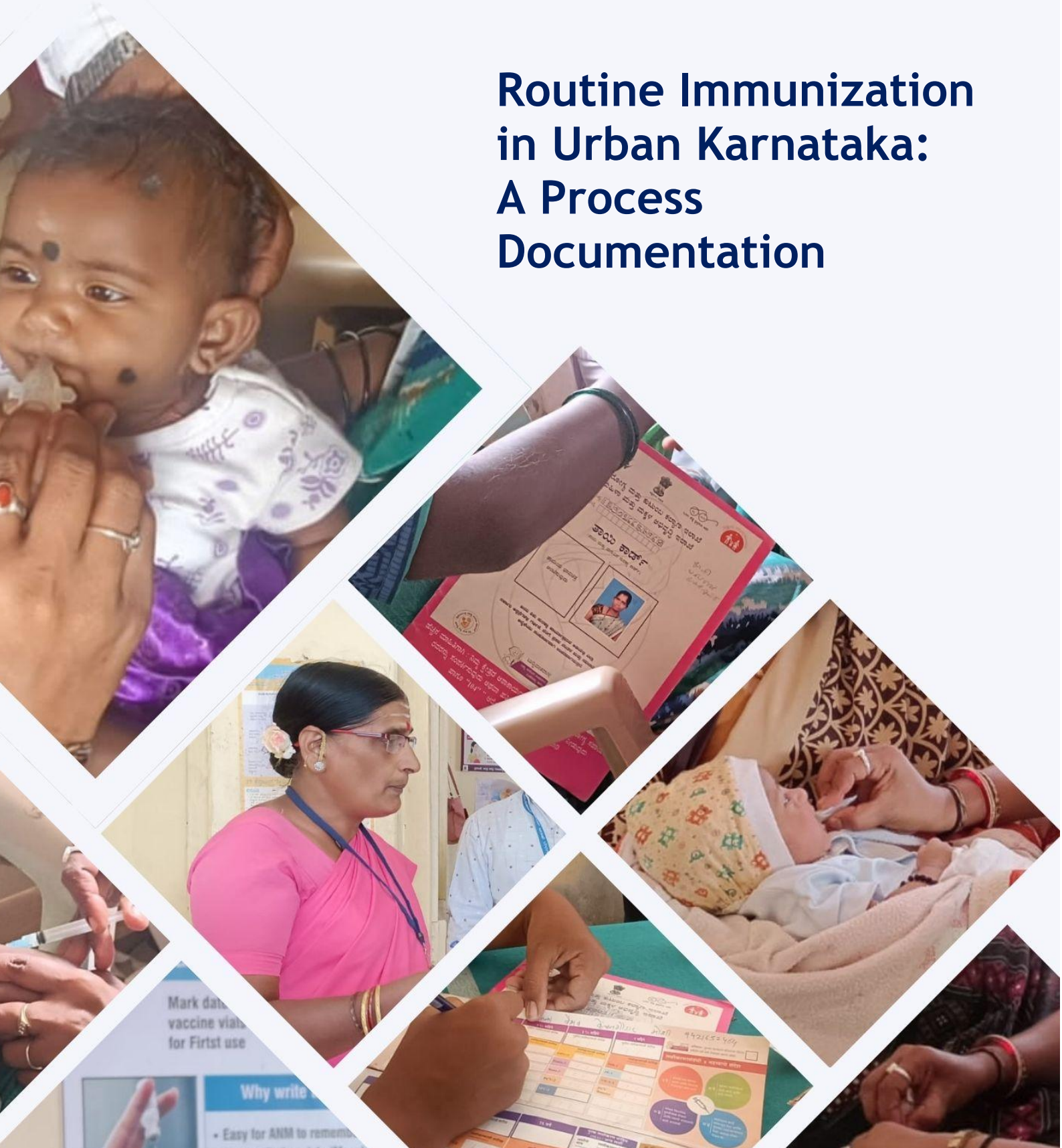
Ministry of Health & Family Welfare
Government of India

Routine Immunization in Urban Karnataka: A Process Documentation



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Authors

Jyoti Koujageri
Raghavendra T

Published by:

KHPT
IT Park, 5th Floor,
1-4, Rajajinagar Industrial Area
Behind KSSIDC Administrative Office
Rajajinagar,
Bengaluru, Karnataka - 560 044

Ph: +91 80 4040 0200
Fax: +91 80 4040 0300
Website: www.khpt.org
Email: khptblr@khpt.org

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Table of Contents

Introduction and Background

Immunization is a highly effective public health intervention that has many benefits. It is a cost-effective way to prevent disease and protect vulnerable populations, and it has played a significant role in reducing the global burden of infectious diseases. India is providing free immunization to children against twelve vaccine-preventable diseases, but the coverage has increased at a very slow pace of around 1% each year. With the aim to augment the pace of achieving full immunization coverage and provide greater focus on urban areas and other pockets of low immunization coverage, it has been suggested the need for an aggressive action plan to cover all children who were left out or dropped out in selected and low performing districts and urban areas through intensified immunization activities. Accelerating actions on several fronts, the Government of Karnataka has bolstered efforts to reach all children left unimmunized and partially immunized through a county-wide rollout of Mission Indradhanush and its intensive drive in selected low-performing areas. Despite the gains, the state has a challenging path to treat before we cover all children and pregnant women in need of life-saving vaccines. Several challenges have hampered the vaccine rollout, including the spread of misinformation, a lack of knowledge, and vaccine hesitancy.

In Karnataka, in collaboration with MOMENTUM, Routine Immunization Transformation and Equity (M-RITE) supported the COVID-19 vaccination program in 14 districts, aiming to improve vaccine coverage by generating demand that targets the most vulnerable communities. This project has adopted various innovative strategies and reached out to the most vulnerable and hard-to-reach populations with COVID-19 vaccination services. When the COVID-19 vaccination is completed, the state governments have sought the support of JSI and KHPT to extend the support to address the gap in routine immunization, especially in urban areas. It has been suggested that some of the innovative strategies adopted under the COVID-19 vaccination program be transformed to reach out to the most vulnerable and left-out children from routine immunization.

Accordingly, in February 2023, KHPT, under MOMENTUM Routine Immunization Transformation and Equity (M-RITE), started supporting the state in routine immunization and rural and urban unvaccinated pockets.

This document explains the achievements, processes, and efforts/strategies adopted by the team to provide RI-related services to the unreached population in urban areas.

Intervention Purpose

The focus of the intervention is to reach out to vulnerable children in urban areas who have unvaccinated or partially vaccinated with vaccination services through increasing awareness and engagement with the community in 8 districts of Karnataka

Overall reach under the project

While supporting the routine immunization programs in the district, from 24 February 2023 to 8 June 2023, the project supported the immunization of 14953 children, 7601 male and 7352 female children. The following table gives details of district-wise coverage of children supported for vaccination.

District	No of sessions supported			No of doses were administered in supported sessions						
	Urban	Rural	Total	Male	Female	Others	Total	0-1 Year	>1 Year	Total
Bagalkote	2	239	241	4164	4041	0	8205	6373	1832	8205
Belagavi	2	170	172	1506	1439	0	2945	2506	439	2945
Davangere	13	168	181	1224	1263	0	2487	2007	480	2487
Kalaburagi	15	484	499	6864	6770	0	13634	11461	2173	13634
Koppal	21	272	293	5061	4608	0	9669	8029	1640	9669
Raichur	0	231	231	4064	3880	0	7944	6681	1263	7944
Vijayapura	10	144	154	3578	3564	0	7142	5428	1714	7142
Yadgiri	1	441	442	6144	5914	0	12058	10386	1672	12058
Grand Total	**64**	**2149**	**2213**	**32605**	**31479**	**0**	**64084**	**52871**	**11213**	**64084**

Routine Immunization in Urban Areas

The general perception is that urban populations have more resources and greater access to health services. In reality, the special fact is that there are evident gaps in immunization, especially among the underserved or vulnerable populations in urban areas. Immunization is relatively lower in the urban population than in the rural population. With low vaccination coverage in urban areas, particularly slums and temporary settlements, poor urban children are susceptible to vaccine-preventable diseases. There are risks of outbreaks and epidemics, and it is challenging to achieve full coverage of immunization until and unless specific strategies are adopted to reach the urban and peri-urban areas.

Recognizing this critical fact in April 2023, the KHPT project implementation team was suggested to focus on urban areas and adopt the successful COVID-19 strategies and lessons to reach out to the needs of migrant, highly dense, and diverse populations with routine immunization services. Accordingly, the team has made efforts to reach out to urban unvaccinated pockets to vaccinate the left-out and drop-out children.

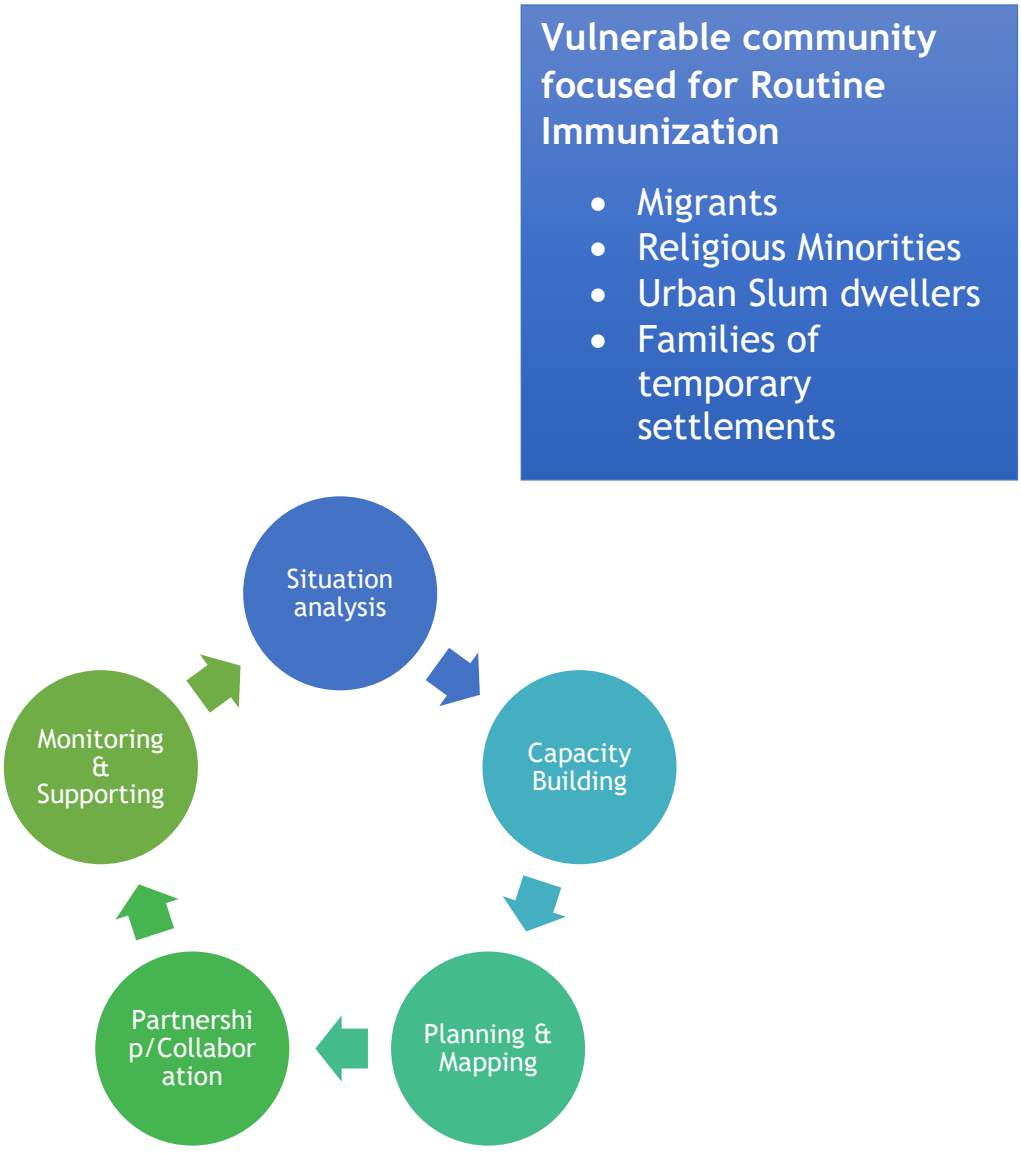
From April 2023 till 8th June 2023, the project could reach out to 537 children (Male-289, Female-249), of which 113 children were fully immunized, and 18 children with 4-12 months Penta-1 were vaccinated. The district-wise reach of children in urban areas is given below.

District	No of sessions supported		No of doses were administered in supported sessions						
	Urban	Total	Male	Female	Others	Total	0-1 Year	>1 Year	Total
Bagalkote	2	2	109	166	0	275	219	56	275
Belagavi	2	2	31	0	0	31	31	0	31
Davanagere	13	13	233	240	0	473	254	219	473
Kalaburagi	15	15	248	220	0	468	253	215	468
Koppal	21	21	329	247	0	576	428	148	576
Vijayapura	10	10	299	220	0	519	349	170	519
Yadgir	1	1	10	10	0	20	20	0	20
Total	**64**	**64**	**1259**	**1103**	**0**	**2362**	**1554**	**808**	**2362**

Key Processes adopted in reaching out the urban populations with immunization services

Rapid urbanization and the slow pace of urban infrastructure development result in the slow progress of immunization coverage in urban areas compared to rural areas. Many studies are also highlighting inequity issues in urban areas. Barriers to knowledge among mothers include poor awareness of the immunization schedule and vaccine-preventable diseases. When it comes to routine immunization in urban areas, the approach is different than in rural areas because urban areas have a higher population density and a more diverse population. The approach to immunization considered those factors and ensured that vaccines were easily accessible to a wider range of people. In some cases, the project focused on specific community groups.

In Karnataka, Routine Immunization interventions in urban areas have been initiated in Davanagere, Kalburgi, Vijayapura, Bagalkote, and Koppal districts. Before initiating the interventions, consultations with RCHOs were conducted. The process adopted in urban areas is explained in detail in the following sections.



(Fig 1: Process to strengthen RI in urban areas)

Step 1 - Situational analysis

Health department and KHPT staff discussing and analyzing the situation in Davanagere district

Strengthening immunization in an urban area took the first step in conducting a situational analysis. This analysis allowed for a comprehensive overview of all relevant elements related to service delivery. In this regard, we identified potential gaps in immunization services, such as areas with low immunization coverage, current immunization strategies, and other areas where support is needed. Also, need to understand the local context, including population characteristics, social and cultural norms, and health system infrastructure. Based on this, we decided to involve the rural volunteers in urban areas where support is needed for routine Immunization. The key outcomes of these analysis are

- Identified and located the areas/segments with low immunization
- Getting the details of The children and parents who are due for immunization and details of families who skipped the immunization schedules. This is done based on the line list available with the health department.

Step 2 - Capacity Building

Capacity Building is an essential process of conducting Routine Immunization (RI) sessions. To ensure successful RI sessions, the Reproductive and Child health officer (RCHO) trained the District Program Coordinator and field-level volunteers on Routine Immunization.

Routine Immunization training conducted for volunteers in Vijayapura district

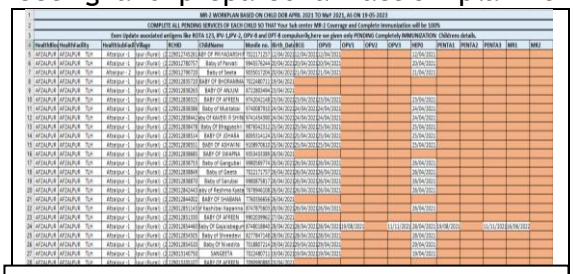
The RCHOs have taken the responsibility of providing the proper training and guidance to ensure that the District Program Coordinator and field-level volunteers. The training sessions were conducted in such a way to ensure that the District Program Coordinator and volunteers were able to understand the importance of RI and how to carry out the RI sessions. The training included topics such as how to identify the target population, how to monitor and evaluate the RI sessions, and how to deal with any challenges that may arise during the RI sessions. The training also included skills to promote RI activities in the community. After the training sessions, the District Program Coordinator and volunteers were equipped with the necessary skills to conduct successful RI sessions whenever required.

Step 3 - Planning & Mapping

Aa part of planning we identified urban areas where the RI due is more due to hesitance by the community and also not able to reach the target due to the shortage of manpower by discussing with the RCHO. A planning meeting was conducted at the Taluk Panchayat to address these issues. In the meeting, discussed the RI due in the urban areas and how we could increase the number of RI doses that are given. Also discussed the shortage of manpower in the Health department and potential solutions to this issue. The meeting involved representatives from the areas health department personnel, as well as the Divisional Lead, District Program Coordinator (DPC), Taluk Coordinator, District Education Officer (DEO) and volunteers from KHPT.

In meeting the team planning for the mapping of the RI due list and strategy in Davanagere

The Divisional Lead and DPC facilitated the meeting and prepared an action plan for intervention. Following the meeting, the intervention areas in the four districts were finalized. The team has been assigned to carry out a mapping in the area using the beneficiaries due list and the dropout list , which is collected through Urban Primary Health Centre (UPHC)/RCHO. The action plan for this mapping consists of three main steps.



Due list received from RCHO/UPHC (Sample copy)

Firstly, the team compile a list of beneficiaries who are due for the vaccination and those who have dropped out. This is done by accessing the relevant databases and cross-checking the information with the list received form RCHO/UPHC.

Secondly, the team contact each beneficiary by visiting house and inquire about their current status with regards to the vaccine. If the child still due for the vaccine or if dropped out, the team will note this information accordingly.

Volunteer home visit and information gathering

Lastly, the team collected the information from the beneficiaries who are due. This involved asking them questions why they not vaccinated the child? why it is due? collect their responses, and note the information/reasons into the relevant databases. Once all the steps had been completed, the mapping were finished, and the team moved on to their next assignment.

Some of the key concerns identified during the mapping process include:

- ❖ The children in the community have been vaccinated, but the information was not updated in the Tayi cards.
- ❖ It has come to our attention that the contact numbers provided in the due list do not match the beneficiary numbers.

Step 4 - Partnership/Collaboration

Involving local UPHC, religious leaders, and organisations in the successful completion of an immunization session in collaboration with the health department is a crucial process. In order to ensure that children have access to the immunizations they need. Involving the local community and religious leaders is important because it provides an invaluable source of support and knowledge that can help make the immunization program more successful. In some places with a large presence of minority communities, we employed a strategy of involving religious leaders or people of the same community to promote the importance of vaccinating children. This strategy proved to be an immense success, with many children receiving the necessary vaccinations and protection from various illnesses. The local organisation, particularly for the Muslim community, played an important role in ensuring the successful completion of the RI session. The local organisation provided valuable input and support that helped the RI session to move forward and reach the children.

Tanzeemul Muslimeena Fund Association is an organization that is actively involved in the RI session at Davanagere district.

Step 5 - Monitoring & Supporting

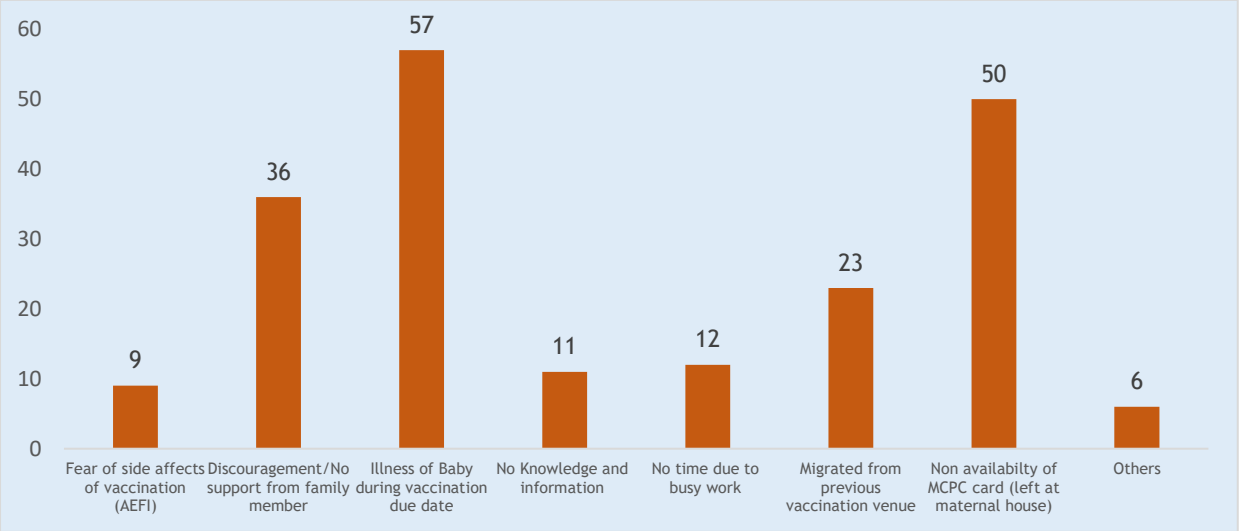
In RI sessions, the date of vaccination, the child's age, and the vaccine administered to the child are monitored and documented. When it comes to assisting in filling the data in the Tayi card, taking beneficiaries to the immunization sites and assisting in raising awareness and eliminating misconceptions about immunization and assisting Front line workers (FLWs) in mobilizing communities for infant/child immunization and creating awareness about routine immunization.

This process helped identify dropouts from the districts and develop strategies for providing immunization services.

The team members who mobilize and brings the community to the RI sessions

Reasons identified for Dropout from immunization

There are various factors/reasons contributing to the dropout rate of children from routine immunization sessions. In this KHPT has done a assessment of 204 individual cases by visiting the individual families and understand the major reasons for drop out from the immunization. We have found that there are various reasons and factors mentioned by the families as reason for drop out immunization. The following graph presents the type of responses given by the individual families



Among the 7 main reasons given by the family predominantly illness of the baby during vaccination due date (28%) and non-availability of an MCPC card during the vaccination day (25%) were the major reasons.

No support /discouragement from the family is another important reason quoted by the families which is a clear indication of neglect of women and children's health in the families. If the male partner had taken their child for routine immunization or had accompanied the partner for routine immunization the dropout scenario could have been different. There is always discouragement by the male members and no financial support has been provided by the male partner for the child's routine immunization visits, never discussing with the partner the child's immunization schedule is one of the associated reasons included in this segment. Considering these factors certainly, there is a need to involve men in maternal and child health activities wherein fathers and male community members actively participate in caring for women and supporting their families to access better health services including immunization services.

Another important aspect is that generally, the perception is that lack of knowledge and information about immunization is one of the primary reasons for the drop of children from routine immunization. But in reality, in our assessment out of 204 families, only 5% of the families expressed this reason. Sometimes it is also true that those who felt they lacked information had negative attitudes about immunizations and towards health care providers.

Migration of family is another important reason mentioned by the families during the assessment of finding reasons for missing vaccination (11%). In two-tier cities too there is a high level of migration from neighbouring districts and villages poses a challenge in the tracking of the families. These families mostly live in urban slums and temporary settlements with limited resources in the city and sometimes these family's area a floating

population and after the completion of stipulated construction work they move to other places. This segment of the worker population could be one of the hard-to-reach populations for immunization.

In addition to the above-mentioned reasons there are also other reasons like

Fear of side effects as a result of immunization, no time due to busy work, superstitions and practices.

Challenges faced & Solutions

Several solutions implemented to address the challenges faced during routine immunization.

Sl.no	Challenges	Solutions
1	Minority population's routine immunization is not easily welcomed or accepted One of the challenges, especially in religious minority areas is language. In a few districts, these communities speak only Urdu hence our volunteers find it difficult to understand and also to communicate with them.	To address this issue, took the initiative & provided language access services to these populations to ensure that they can access the immunization services that they need. Additionally, community outreach campaigns are conducted in a way that is culturally sensitive and appropriate to ensure that the message is received and understood.
2	There are also instances in urban areas where parents scold volunteers after the immunization and the child experiences side effects like fever. Though the information given during the vaccination about the probability of fever still parents blame the volunteers which makes it difficult to visit other houses to promote immunization. This is hesitancy but still volunteers find it difficult to convince other parents under such a scenario.	In such a situation, we informed the team that it is important to understand the fear that parents have for their children's safety. The volunteers are provided with training and resources that enable them to effectively communicate the risks associated with immunization, and also ensure that healthcare workers are aware of the reactions and side effects that may occur after immunization and provide advice and support to parents who may worried.
3	In some districts, ASHAs feel that these volunteers are not necessary and without them, they do the immunization. They resist providing details of vaccination done thinking that credit may go to the volunteer.	This is particularly true in instances where volunteers have proactively supported the mobilization of families and managed crowd control at the vaccination sites. Despite this, we informed the team whatever the reason the presence of volunteers is still essential for the successful completion of immunization in these districts.
4	Deputation of volunteers to urban areas to focus on urban unvaccinated pockets leads to higher travel expenses and also unwillingness of the few volunteers to take up these tasks on a regular basis	To address this issue, provided volunteers with adequate support and financial incentives to make the task of travelling to urban areas and providing services more attractive. Furthermore, clear and consistent communication

		between the volunteers and the organization is done, as this will help to create a sense of trust and reliability. Finally, they are adequately compensated for their time and effort.
5	No IEC materials are available with the Awardee/organisation on routine immunization which hinders the educative sessions with households on routine immunization	IECs available with the department are used to promote routine immunization to educate and spread awareness during house-to-house visits. They provide valuable information to parents, and community about the importance of immunization and the different vaccine-preventable diseases that can be prevented.
6	Shortage of infrastructure for conducting RI sessions	Explored places like, local Organisation building, UPHC, Anganwadi centre, etc. and conducted RI sessions

Key learnings

Routine immunization is an essential process in ensuring public health. Immunization helps to protect individuals from various infectious diseases. In urban areas, routine immunization plays a critical role in preventing outbreaks of communicable diseases. Here are some key learnings from routine immunization in urban areas:

- Community mobilization is crucial in ensuring successful routine immunization campaigns. Engaging community leaders, influencers, and parents to encourage them to participate in the immunization process. By mobilizing communities, teams can increase immunization coverage, which helps prevent infectious disease outbreaks.
- Involving religious leaders and local organisations in immunization services is essential to ensure children can access immunizations. Religious leaders and organisations can act as powerful advocates for the delivery of immunization services, and their involvement can make a real difference in the successful completion of immunization sessions. People tend to listen to religious leaders, which can make the difference between a successful immunization session and an incomplete one.
- We must consider what the people want before we make any decisions. We cannot just do whatever we want without considering the community's perspectives. We must actively listen to what the people have to say and consider their views when making choices.
- Training/capacity building is essential in ensuring the success of routine immunization programs in urban areas. The team is to be trained on the latest immunization guidelines, vaccine storage, and handling procedures, as well as how to communicate with parents about the importance of immunization effectively. A well-trained team can provide quality immunization services, which help to increase immunization coverage.

Recommendations

Despite efforts to increase immunization coverage, pockets of the population remain uncovered. This is particularly prevalent in urban areas, where unauthorised slums, construction work sites, brick kiln sites, and similar locations can often be found. It is recommended that microplanning be conducted to map urban areas and identify these uncovered pockets.

- A detailed area assessment, including demographics, population density, and geographical boundaries can be done. By conducting this assessment, health officials can better understand the community's specific needs and develop targeted immunization strategies that address the unique challenges of these uncovered pockets.
- Innovative approaches to increasing awareness about immunization are essential. One such approach is to provide information on the date, time, and venue of immunization sites. This information can be disseminated through various radio, television, and social media channels.
- Another innovative approach is the use of mobile text messaging as reminders. This method is effective in increasing the coverage of immunization in many communities. Text messaging reminders can be sent to parents and caregivers to remind them of upcoming immunization appointments.

Overall, the successful implementation of a multipronged strategy to improve immunization coverage in an underserved Karnataka area demonstrates the feasibility of such interventions. This success also highlights the importance of carefully planned strategies that consider the target community's unique needs and challenges. With the right strategy in place, it is possible to improve immunization coverage and ensure better public health outcomes quickly. In conclusion, meeting the health demands of increasing urbanization requires a comprehensive approach that includes investing in health infrastructure, strengthening health systems, and promoting health equity. By adopting this approach, health systems can be geared up for longer-term gains and sustainability, ensuring that urban populations have access to the quality health services they need to thrive.