

FINDINGS FROM A RAPID ASSESSMENT IN KATHMANDU METROPOLITAN CITY

Understanding the Behavioural and Social Drivers for Under-vaccination of Children in Nepal



BACKGROUND

Although Nepal was the first country in South Asia to enact a national immunization policy, it still faces challenges in reaching all children with vaccination services. Although 91 percent of children have received their third dose of the Diphtheria-Tetanus-Pertussis (DTP)-containing vaccine, there are sub-national disparities in immunization coverage and, as of 2021, 50,000 children are considered zero-dose.^{1,2,3}

Demographic and Health Survey (DHS) data from 2016 indicate that several social and behavioral factors affect immunization coverage in Nepal. For example, children born at a health facility are more likely to be fully immunized compared to children who are not. Children with vaccination cards have higher coverage rates than those who never received a card,⁴ yet only 52% of those surveyed had a card. Moreover, maternal education, economic status, and child marriage practices contribute to inequities in immunization coverage.⁵

In order to reach zero-dose and under-immunized children in Nepal with basic, routine vaccines, the government of Nepal and the broader global immunization community need to implement new approaches that are tailored to these communities. Behavioral science, the evidence-based understanding of how people behave, make decisions, and respond to programs,

1 World Health Organization and United Nations Children's Fund. 2022. Immunization Nepal 2022 country profile. Retrieved from <https://www.who.int/publications/m/item/immunization-npl-2022-country-profile>.

2 Ministry of Health, Nepal; New ERA; and ICF. 2017. Nepal Demographic and Health Survey 2016: Key Indicators. Kathmandu, Nepal: Ministry of Health, Nepal.

3 Multiple Indicator Cluster Survey (MICS). 2021. Forthcoming.

4 Patel, P. N., Hada, M., Carlson, B. F., & Boulton, M. L. (2021). Immunization status of children in Nepal and associated factors, 2016. *Vaccine*, 39(40), 5831-5838. <https://doi.org/10.1016/j.vaccine.2021.08.059>

5 Ministry of Health, Nepal; New ERA; and ICF. 2017. Nepal Demographic and Health Survey 2016: Key Indicators. Kathmandu, Nepal: Ministry of Health, Nepal.



Transect walk at a district in Sudurpaschim province, one of the three provinces included in the rapid assessment.

Credit: Kathmandu University School of Medical Sciences

policies, and incentives, offers methods and tools that can help uncover the behavioral and social drivers of low vaccine uptake.⁶ These methods and tools enable practitioners to identify the root causes of challenges that communities face in accessing immunization and other health services, and to use behavioral insights to develop tailored solutions to those challenges.

The Kathmandu University Behavioral Science Center, JSI Research & Training Institute, Inc. (JSI), and UNICEF Nepal conducted a rapid assessment to identify the behavioral and social factors associated with routine immunization uptake among caregivers and community members in three provinces of Nepal. The rapid assessment was designed for the BSC to conduct formative research that would inform tailored behavioral interventions to increase routine vaccination uptake. This brief focuses on the findings from caregivers in Kathmandu Metropolitan City.



METHODS

The BSC conducted an exploratory qualitative study using tools from the human-centered design (HCD) process and rapid inquiry. Considering the objectives, time, and funding available, rapid inquiry was the appropriate method for this study. Rapid inquiry is a narrow, quick, action-oriented, and adaptable process that focuses on understanding user experiences to uncover challenges and solutions through collecting community-specific data. Rapid inquiry also enables researchers to question assumptions, use observations, and understand the social, cultural, political, and economic influences in a community.⁷

The team adapted the Behavioral and Social Drivers of Vaccination (BeSD) tool⁸ for childhood vaccination to the Nepali context based on the COM-B model⁹ and desk review findings to create a semi-structured interview guide for caregivers and community “influencers.” To identify interview participants, the research team used anthropological tools such as kuragraphy and transect walks. The use of these tools also help verify information obtained from the municipal health division.

6 Behavioural Science Guidance Note. Secretary-General’s Guidance on Behavioural Science. United Nations.

7 Nucleus and UNICEF. 2021. Draft Progress Report August 2021, Tailoring Change: Human-centred design for demand generation.

8 Geneva: World Health Organization; 2022. Behavioural and Social Drivers of Vaccination: tools and practical guidance for achieving high uptake.

9 Michie S, van Stralen M. M., West R. The Behaviour Change Wheel: a new method for characterising and designing behaviour change interventions. *Implement Sci.* 2011 Apr 23;6:42. doi: 10.1186/1748-5908-6-42. PMID: 21513547; PMCID: PMC3096582.

FINDINGS

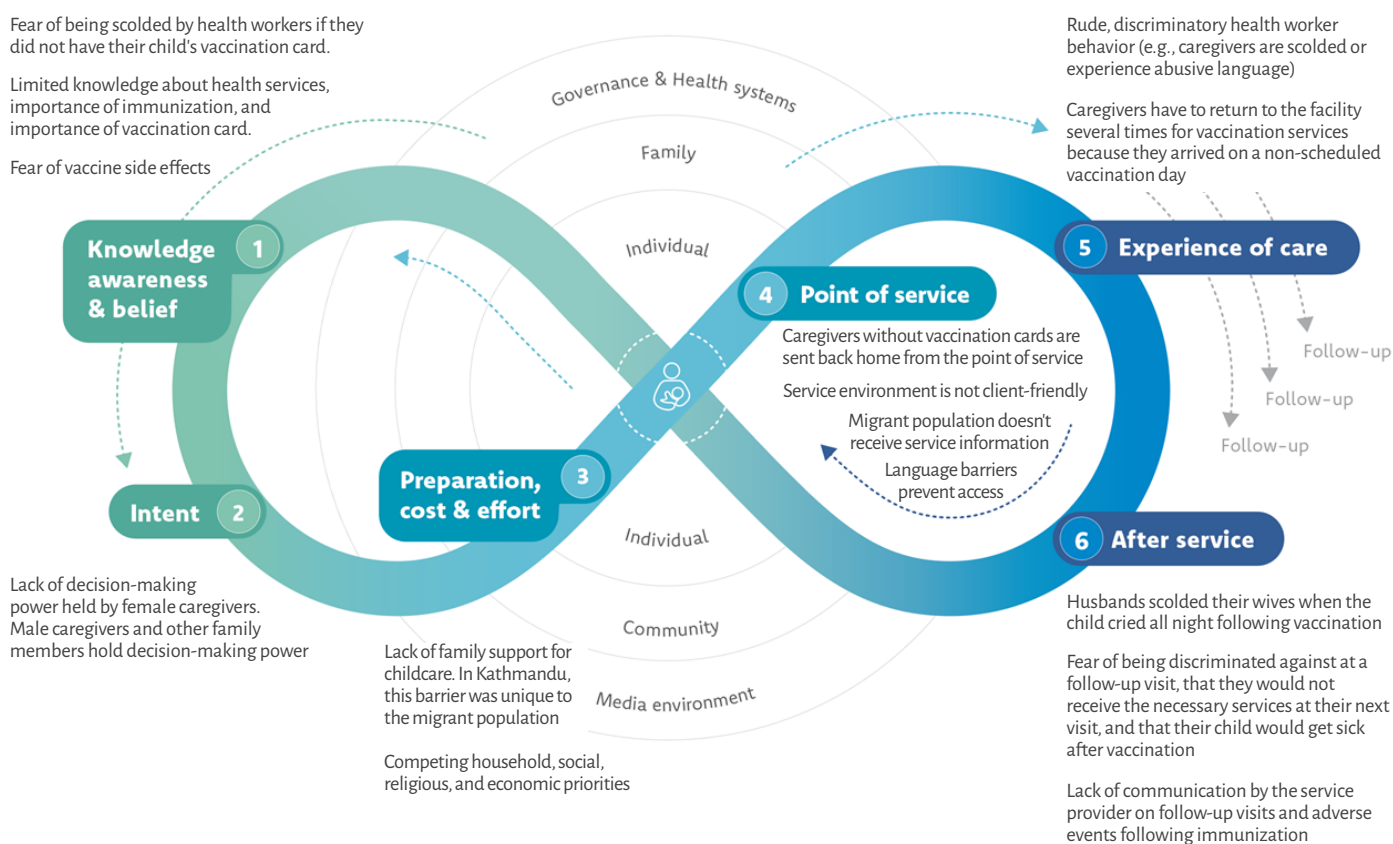
After collecting data in Kathmandu Metropolitan City, the research team used UNICEF's Journey to Health and Immunization process to conduct preliminary analysis of the data. The Journey to Health and Immunization process enables researchers and implementers to consider the feedback loops between supply and demand as well as the barriers and enablers at every point of a user's journey (before, during, and after receiving services).¹⁰

In Kathmandu Metropolitan City, in a sample size of 26 children under two years of age, 15 children were under-immunized or "zero-dose." Interviews with caregivers of fully immunized, under-immunized, and 'zero-dose' children revealed several barriers and enablers to vaccination.

BARRIERS

Caregivers experienced barriers at every stage of the journey to health and immunization (Figure 1). Many barriers were related to women's decision-making power and poor interactions with health workers.

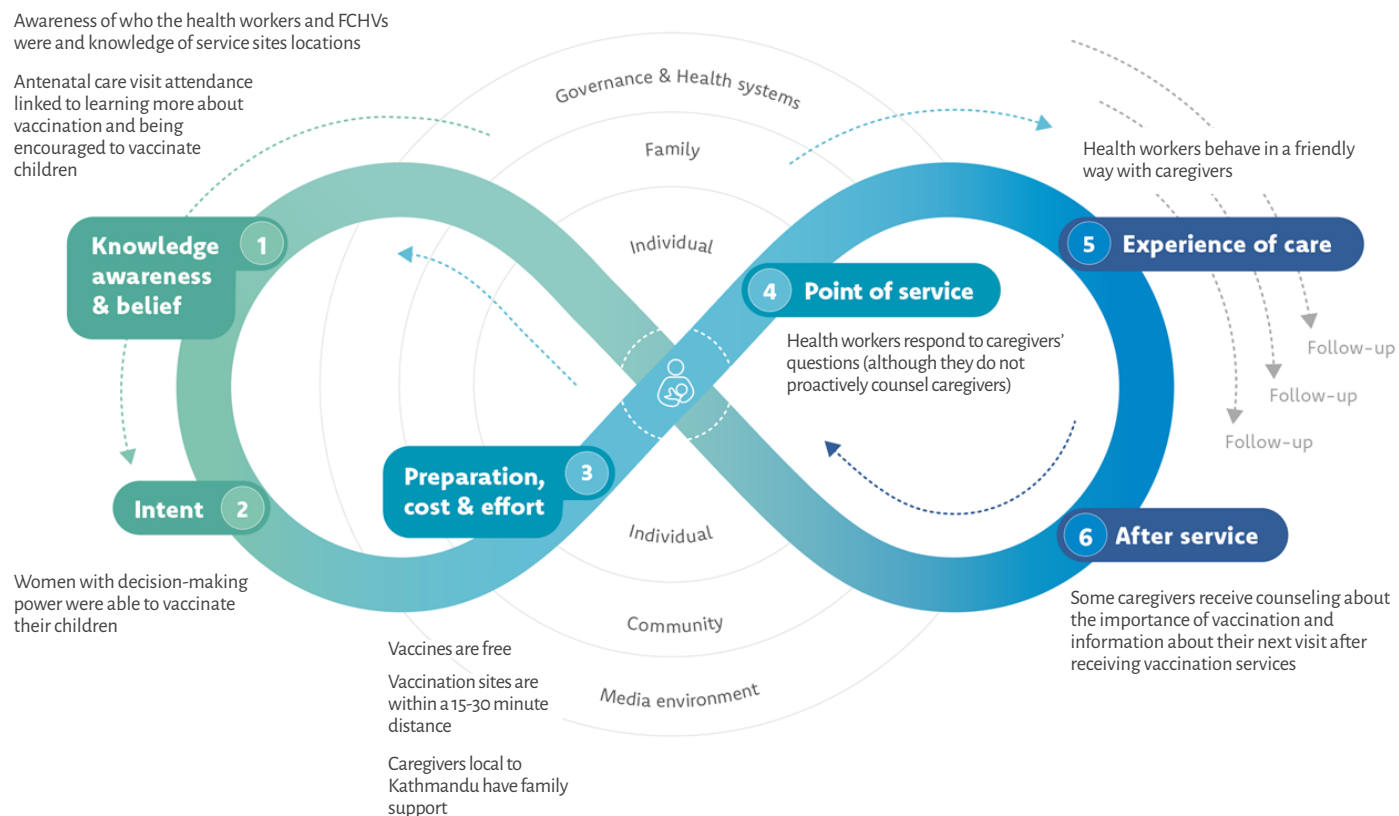
FIGURE 1: THE JOURNEY TO HEALTH AND IMMUNIZATION | BARRIERS



¹⁰ Nucleus and UNICEF. 2021. Draft Progress Report August 2021, Tailoring Change: Human-centered design for demand generation.



FIGURE 2: THE JOURNEY TO HEALTH AND IMMUNIZATION | ENABLERS





RECOMMENDATIONS

Localized and tailored strategies are needed to overcome the challenges identified in the study. The research team identified several recommendations based on the findings:

Consider adjusting the time that vaccination services are provided. There is demand for routine childhood vaccination services, but the services are not accessible to caregivers who are day laborers or live far from the facility. Adjusting the time of services would also benefit members of the migrant and floating population. Adjustments of vaccination services are likely to require approval from multiple levels of the health system and should be determined through consultation with caregivers, health workers, district supervisors and managers.

Engage all family members in vaccination. Gender norms shape decision-making power and the perception of who is responsible for vaccinating children. It is critical to meet family members where they are and use innovative methods to provide them with information. Interventions should focus on family engagement to increase support for vaccination.

Engaging all family members also includes reaching out specifically to men. There should be a focus on identifying and collaborating with strategic locations (such as workplaces, small restaurants, or teashops) to engage men in immunization. Working with strategic locations can help create immunization champions that are comfortable and confident talking with men in the community about the importance of vaccination and sharing information about services.

Make information about vaccination sites easily available to communities: Metropolitan and sub-metropolitan cities should prepare lists of both public and private health facilities providing free vaccination services as well as the days and times vaccination services are offered. This information should be made available in multiple formats and strategic places that can reach priority communities.

Conduct targeted outreach: Wards should map vulnerable and poor households that may have limited access to and information about health and immunization services. FCHVs can conduct targeted outreach in communities with high numbers of these households to help caregivers access basic health services and referrals.

Develop tailored immunization and primary health care strategies for different populations and geographies. A different approach needs to be taken to reach urban migrant and floating populations with vaccination services. An urban health strategy should be developed to address the barriers leading to low vaccination uptake in those settings.

Update training programs for health workers and Female Community Health Volunteers (FCHVs). Current training is inadequate to meet the needs of health workers and FCHVs. Training and capacity assessments should be performed routinely to implement people-centered training approaches. An updated training package should include a focus on respectful care and interpersonal communication. The package should also emphasize on-site coaching and the use of client feedback. The training package should be designed with input from health workers.

Clarify roles and responsibilities at every level of the system. From national level to local level, roles and responsibilities need to be clarified across the health system. Specific responsibilities that need to be clarified and reinforced include monitoring, evaluation, and learning; data reporting and use; and provision of health services to migrant and floating populations. Lack of understanding of current expectations has led to communities being excluded from services, lack of sufficient training for health workers, and lack of accountability to clients and providers.