

Understanding Behavioral and Social Drivers of COVID-19 Vaccine and Childhood Immunization Demand and Uptake in Addis Ababa and Oromia, Ethiopia: A Qualitative Assessment

Shibani Kulkarni¹, Sileshi Lulsegad², Terefe Gelibo², Meseret Zelalem Tadesse³, Yohannes Lakew Terefa³, Nessa Ryan¹, Mansoor Farahani⁴, Sophia Miller², Ciara Sugerman¹, Almea Matanock¹, Dimitri Prybylski¹, Hussien Mekonnen⁵, Zenebe Melaku²
¹U.S. Centers for Disease Control and Prevention, ²ICAP Ethiopia, ³Ministry of Health, Ethiopia, ⁴ICAP at Columbia University, ⁵Addis Ababa, School of Public Health

Background

- The COVID-19 pandemic has challenged immunization systems affecting childhood immunization and COVID-19 vaccination
- In Ethiopia, during the pandemic, childhood immunization coverage for key antigens decreased significantly, and 68% of the population had received the first dose of a COVID-19 vaccine by May 2023 according to MoH estimates
- It is important to understand vaccination challenges within the context of the pandemic to help inform immunization recovery efforts and potential service integration of COVID-19 vaccine.

Specific Aim

To identify behavioral and social drivers influencing childhood vaccination and COVID-19 vaccine demand among health care workers (HCWs) and caregivers of young children using qualitative methods.

Methods

Design: Qualitative inquiry through key informant interviews (KIIs) and focus group discussions (FGDs) conducted in May 2022 in two regions with high COVID-19 burden- Addis Ababa and Oromia.

Sample:

- Caregivers of children 6-35 months- 6 FGDs
- Regional Health Bureau officers- 4 KIIs
- Zonal health officers- 4 KIIs
- District EPI focal persons- 12 KIIs
- HCW providing immunization services- 12 KIIs

Analysis: Transcripts from audio recorded discussions were coded deductively and inductively in Atlas.ti. Codes were grouped into categories, and then into themes that highlighted key barriers and facilitators to childhood vaccination and COVID-19 vaccine demand and uptake.

Results:

Table 2: Facilitators and barriers of routine immunization and COVID-19 vaccine demand and uptake in Addis Ababa and Oromia, May 2022

		ROUTINE IMMUNIZATION	COVID-19 VACCINE	
BARRIERS TO DEMAND AND UPTAKE	FEAR OF INFECTION	Caregivers' fear of <u>getting COVID-19 infection</u> at the health facility and their perception that HCWs were a source of infection negatively affected caregiver vaccination-seeking behavior <i>"Due to fear of acquiring the [COVID-19] infection, I was not willing to go for [child] vaccination and [I] did not volunteer to let the health workers enter our homes."</i> (FGD participant, Addis Ababa)	SIDE EFFECTS	Fear of <u>severe side effects</u> due to COVID-19 vaccine was prevalent among caregivers and HCWs <i>"The perception that COVID-19 vaccine causes infertility was a major concern for the female HCWs. Lactating women, in particular, expressed their dissatisfaction with the COVID-19 vaccine as they thought it would cause infertility. They were not immunized as a result of this worry. They generally believed that the COVID-19 vaccine should not be given to women of reproductive age."</i> (KII, HCM, Oromia)
	LACK OF ACCESS	<u>Lack of transportation</u> prevented caregivers from traveling to health facilities during lockdown" <i>Yes, there was problem to go out because of the travel restriction; there was no taxi and double payment and unaffordable to go to health facilities for childhood immunization."</i> (FGD participant, Addis Ababa)	RELIGIOUS LEADERS	<u>Influential religious leaders' recommendation against COVID-19 vaccines</u> , negatively affected community perceptions of the vaccine <i>"Our religious leaders are telling us it is '666'. The religious leaders are advising us not to take the vaccine, and that is why I am not taking it. I am convinced that the vaccine has benefit, but our religious leaders do not support and promotes its use."</i> (FGD participant, Addis Ababa)
	STOCK-OUTS	Other barriers: <u>Stock-outs</u> of routine vaccines in early phases of the lockdown prevented caregivers from getting their children vaccinated	MISINFORMATION	Other barriers: Concerns about vaccine safety or religious concern may also stem from <u>vaccine misinformation</u> . Vaccine <u>supply chain</u> and management issues for delivering the vaccines to sites
FACILITATORS OF DEMAND AND UPTAKE	COMMUNITY ENGAGEMENT	HCWs providing <u>outreach education to inform caregivers</u> on continuing childhood vaccines during the pandemic helped caregivers to have vaccination information <i>"We had time at home during the lockdown and used that as important opportunity to check on the vaccination cards of children and discuss about the importance of childhood vaccination within the existing situation to prevent other epidemics that might occur as a result of interruption of vaccination due to wrong perceptions."</i> (KII HCW, Addis Ababa)	VACCINE ROLE MODEL	Vaccinated HCWs who served as <u>role models for vaccine uptake</u> among peers and in the community <i>"As we are health professionals, we need to be role models for the rest of the community and encourage them to take the vaccination. I was keen to take the vaccination before it was introduced in our country... I was committed to take the vaccine and ready to accept whatever the consequence. I fortunately had no side-effects, and I shared my experience with the community, and there was a surprising demand from the community for the vaccine."</i> (KII, HCW, Oromia)
	KNOWLEDGE & ATTITUDES	Other facilitators: Caregivers generally had <u>positive attitudes towards routine immunization</u> and suggested increased health-seeking after the lockdown	KNOWLEDGE	Other facilitators: <u>High COVID-19 disease risk perception</u> motivated HCW to get vaccination and <u>knowledge of underlying chronic conditions</u> as a risk factor also motivated some community members to get vaccinated

Conclusions

- Routine immunization demand was influenced by high COVID-19 disease risk perception and lockdown restrictions in Ethiopia.
- The introduction of COVID-19 vaccines challenged the system with misconceptions about the risk of vaccination and disease, underscoring the need to address COVID-19 vaccine misinformation through credible sources.
- This assessment highlighted that leveraging approaches such as continuing and intensifying social mobilization through community actors and HCW may help increase awareness and promote routine immunization and COVID-19 vaccines.
- Community engagement for vaccine demand generation can be incorporated into broader integration efforts for COVID-19 vaccine and routine vaccination service delivery.



Acknowledgements

We would like to acknowledge the KII and FGD participants for their time and information provided for this assessment.