

# The human-centered design approach revealed that Ilala, as a central urban hub, has many vaccine defaulters not captured in national records, highlighting the need for vaccination process tracking and records synchronization

## Closing the Zero-Dose Gap in Tanzania: A Human-Centered Design Approach

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### Introduction

Currently, Tanzania is identified as one of the top 10 countries globally with the highest number of zero-dose children. The Dar es Salaam region has the 4th highest number of unvaccinated children (for DTPI by region) in the country. Compared to other municipal councils in the region, Ilala has the highest unvaccinated rate at 27%. To solve this, a human-centred design (HCD) approach was applied to ensure co-creation of the solutions.

### Objective

The main objective of this project is to promote vaccine utilization and close the zero-dose gap among young children by co-working with the community to design tailored solutions.

### Methods

HCD is a design approach that focuses on understanding the needs, behaviors, and experiences of the people for whom you are designing.

HCD workshop convened stakeholders from Ilala including parents, health care workers, academia, development partners, Ministry of Health representatives, and community leaders to address low vaccination coverage, identifying barriers to vaccine hesitancy and opportunities to reduce the zero-dose gap. Participants were able to uncover 29 barriers to vaccination and 9 opportunities that can be tapped to reduce the zero-dose gap in Ilala.

Participants generated 309 potential ideas for implementation in Ilala. The Ilala stakeholders leveraged HCD to prioritize, prototype, and obtain consensus on the practical number of ideas to carry forward. Top six ideas were selected for prototyping. The prototypes were tested in three iterations by different user groups in Ilala. One idea was selected for implementation. The idea, also called the Ilala model, focused on advocating for vaccine uptake through community leaders. Implementation was informed by the HCD process and data from health facilities indicating the vaccination status.



The Ilala Model - A co-designed idea advocating for vaccine uptake through community leaders



Implementation of the Ilala Model at community level through Human Centered Design



A workshop on idea prioritization, prototyping and iterative testing within Ilala



Implementation of the Ilala Model at district level through Human Centered Design



The advocacy idea underwent four iterations during prototype testing to incorporate the needs of the people in Ilala



Supportive supervision and monitoring of the house to house vaccine mobilization and sensitization

### Results

The Ilala immunization data records indicated the presence of 2,550 zero dose and 1,753 defaulters. However, during the vaccination exercise, a much smaller number of zero doses (387) were identified, while a significantly higher number of defaulters (9,899) were identified. A total of 67,145 (104%) houses were visited during the exercise, and 131,088 families (83%) were offered vaccination services.

SN	INDICATORS	ILALA COMMUNITY VACCINE MOBILIZATION (UKONGA AND SEGEREA)		
		TARGET	ACTUAL	(%)
1	Households reached	64,800	67,145	104
2	Number of families present in the visited households	259,200	156,995	61
3	Number of Families reached	156,995	131,088	83
4	Zero Dose reached	2,550	387	15
5	Defaulters reached	1,753	9,899	565
6	Total Children vaccinated	4,303	10,286	239
7	Eligible children but were missed		2,127	
8	Total Children in families that were reached		90,158	

Figure 1. House to House Vaccine Mobilization results

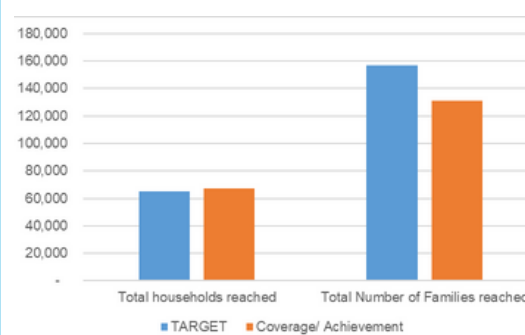


Figure 2: Household and family Coverage

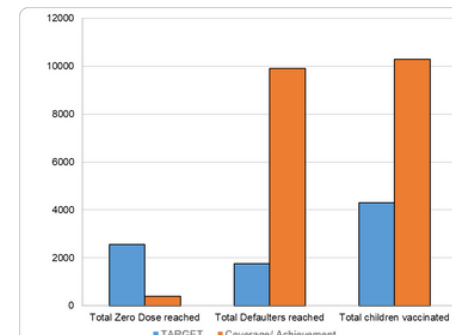


Figure 3: Total children reached

### Conclusion

The findings from the vaccination exercise align with HCD problem diagnosis and research phase revealing that Ilala being the central urban hub in Dar es Salaam, attracts frequent movements of families. The frequent movements within and outside of Ilala highlight a pressing challenge: the need for a mechanism to track the vaccination process and synchronize vaccination records within Ilala.

