

# A Time Series CRA of COVID-19 Vaccine Uptake, Routine Immunization, and MNCH Services in Six Eastern and Southern Africa Countries

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## Background

The three-round, representative quantitative survey targets general population and is currently being undertaken in Angola, Comoros, Ethiopia, Madagascar, Malawi and Tanzania.

The overall objectives are:

**COVID-19 vaccine uptake:** Establish the current and future levels of vaccine uptake related to COVID-19 and understand the differences between regions, urban and rural areas, gender, wealth and age groups.

**Utilization of RI and MNCH services:** Measure of the level of utilization of routine immunization and MNCH services and identify environmental and behavioural barriers and drivers.

**Evidence-based insights:** Identify evidence-based insights to inform the improvement of immunization and MNCH services.

## Specific Aims & Objectives

Based on the data collected during the first round, we asked ourselves: **How does risk perception affect demand for immunization?** And do families' income levels have any effect on their demand for childhood RI?

Using CRA data, **we analysed the effect of risk perception on intention to vaccinate, per wealth bracket**, assuming the majority of zero-dose children live in households facing multidimensional poverty.

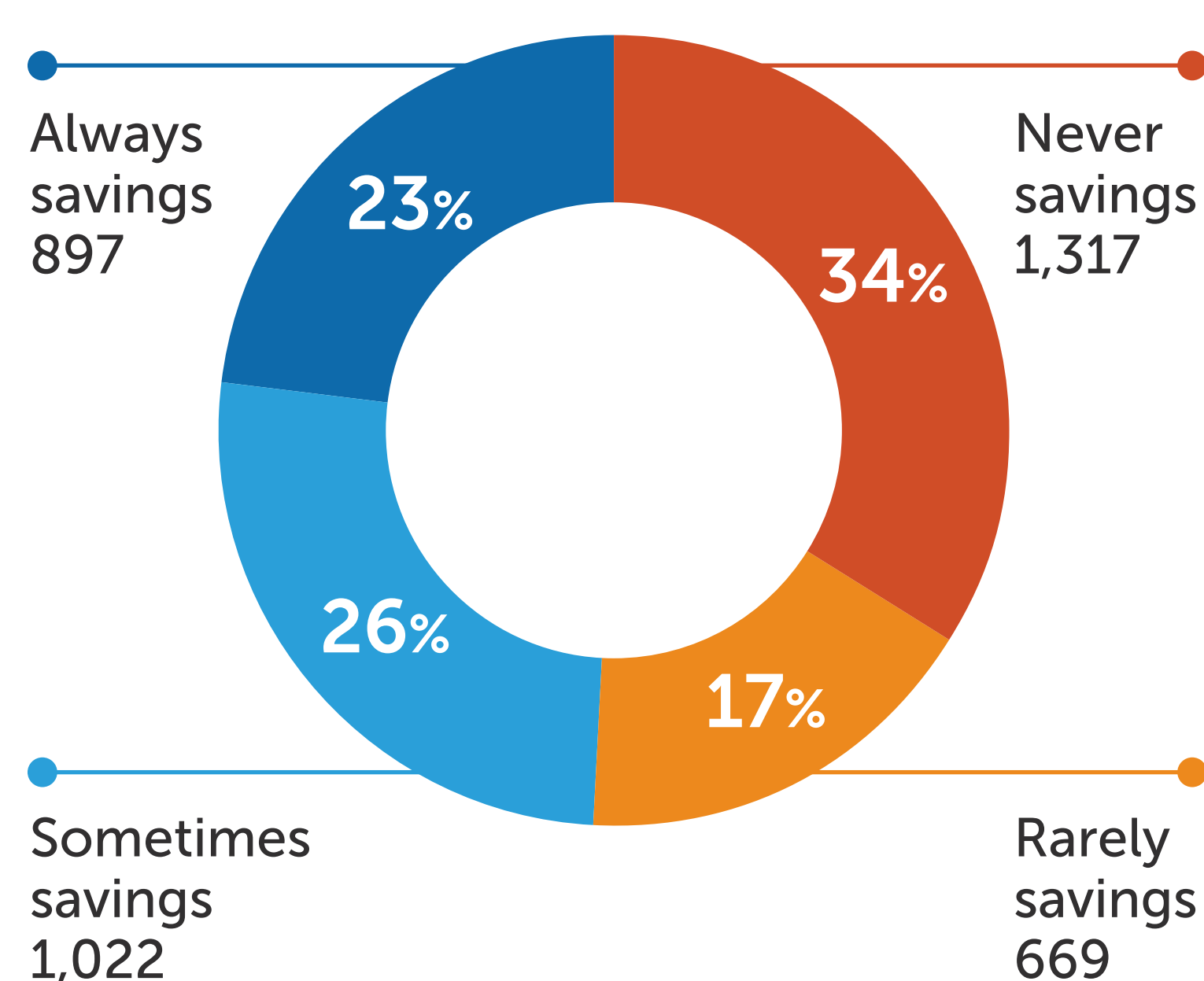
Income was estimated by the question: "Are you able to save any cash or goods at the end of every month?" [1. Never, 2. Rarely, 3. Sometimes, 4. Always]

## Methods

The first round of phone survey was conducted from 11 November 2022, to 1 January 2023, with dialled responses automatically recorded. A total of 3,905 parents were taken to examine respondents across wealth groups, of which 2,041 were female (52.3 per cent) and 1,863 male (47.7 per cent).

The survey tool is based on two compatible frameworks: the UNICEF **Journey to Health and Immunization**, which captures six steps an individual needs to undertake to demand and uptake immunization services (1 Knowledge awareness and belief; 2 Intent; 3 Preparation, cost and effort; 4 Point of service; 5 Experience of care; 6 After service) and the **Behavioural Drivers Model** (Brewer; 2017; WHO/UNICEF, 2019), which depicts key elements influencing one's ability to demand and uptake services (thinking and feeling; social norms; intention; practical ease).

### Survey respondents by level of savings at the end of every month



### Drivers of vaccine willingness by level of savings

Significant moderators applied: What drives vaccine willingness?	Savings of respondent			
	1 Never	2 Rarely	3 Sometimes	4 Always
<b>Risk perception:</b> "Do you believe that children could be at greater risk of contracting a serious illness if they are not vaccinated?"	$\beta = .80$	$\beta = .55$	$\beta = .73$	$\beta = .32$
<b>Health care worker explains adverse effects following immunization (AEFI):</b> "When you got your child vaccinated, did healthcare workers explain possible side effects, such as fever or headache, after routine immunizations and how to manage them?"	$\beta = 1.10$	$\beta = .28$		
<b>Service quality:</b> "During your last visit, how was the quality of the vaccination services?"			$\beta = .88$	
<b>Injunctive norm:</b> "Do you think most of your close family and friends want you to get your child fully vaccinated?"		$\beta = .69$	$\beta = .30$	$\beta = .48$

## Results

**Never savings:** For people with very low income who do not receive explanations on adverse effects following immunization (AEFI), risk perception can increase their willingness to vaccinate. However, receiving an explanation on AEFI is more powerful.

**Rarely savings:** Thinking family and friends want the respondent to fully immunize his/her child (injunctive norm) is the main predictor of vaccine intention, followed by risk perception.

**Sometimes savings:** Positive service experience increases people's willingness to vaccinate, followed by risk perception.

**Always savings:** Thinking family and friends want the respondent to fully immunize (injunctive norm) is the strongest driver of vaccine intention.

## Conclusions

Risk perception does not always lead to vaccine demand and uptake. Demand-related drivers vary, depending on the population that the programme is targeting.

When targeting families with very low income, programmes need to ensure that target populations can easily access primary health services so that the interaction between health providers and patient occurs. Health care workers need to be well-equipped to provide high-quality immunization services, including explanations on the risks associated with no or partial child immunization, and on how to manage AEFI.

Injunctive norms are relevant drivers of immunization demand in all three remaining wealth brackets. Publicizing and reinforcing pro-vaccination social norms through multiple interventions can have a positive effect across these target populations.

## Acknowledgements

Symen Brouwers, UNICEF ESARO  
Ines Filipa White, UNICEF Angola CO  
Abdoul Moubark Kabore, UNICEF Comoros CO  
Rachana Sharma & Hnin Su Mon, UNICEF Ethiopia CO  
Boureima Konate, Chancy Mauluka & Domoïna Ratovoanany, UNICEF Madagascar CO  
Sanju Bhattarai & Shorai Christina Nyambalo, UNICEF Malawi CO  
Awet Araya, UNICEF Tanzania CO

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