# Increasing child vaccination uptake in Yemen through pilot mobile notification system at community level

Authors/affiliations: Radwan Fakeir (JSI/SHARP), Khalid Tarmoom (JSI/SHARP), Mehtab Al-Berik Salem (JSI/SHARP), Suaad Al-Hetari (JSI/SHARP), Nadia Olson (JSI/Boston)

With the marked decrease in immunization coverage for children under one year of age in Yemen due to conflicts and deteriorating economic and social situation, and reported cases of fatal vaccine-preventable diseases, trial SMS messages and follow-up from the community midwife increased immunization coverage significantly.

## INTRODUCTION

- Yemen remains vulnerable to disease outbreaks, including vaccine-preventable diseases due to years of conflict, displacement and recurring natural disasters – depleting the country's healthcare system and critical infrastructure, in turn increasing the likelihood of communicable disease outbreaks.
- Yemen is the leading country in the Middle East and North Africa (MENA) region in numbers of under-vaccinated children, with almost a third of the population under the age of 1 missing routine vaccinations for preventable diseases (diphtheria, measles, and polio).
- The USAID-funded Systems, Health, and Resiliency Project (SHARP) conducted a study in Yemen in 2021 piloting an SMS Vaccination Reminder System in the Al-Buraiqa district (Aden governorate).
- The system gave reminders to caregivers and/or mothers on the next vaccination appointment dates for their children (below the age of 12 months). The message is sent out two days before the due date, encouraging timely vaccines.

# METHODS

- SHARP utilized the community health information system and launched the pilot Electronic Immunization Registry (EIR) mobile application, and trained 23 community midwives (CMWs) and 8 health facility immunization focal points for the pilot testing, and on how to create electronic client files.
- The EIR helps to strengthen the linkage between the community health and health facility (HFs), enabling HFs to identify the children who missed their vaccination appointments and share the list with CMWs.
- The CMWs trace the children by conducting house visits and provide counseling services to the caregivers on the importance of vaccination for improving child health outcomes.











The key findings of the pilot-test indicate that the number of children that received the PENTA3 third dose increased from 238 in November 2022 to 343 in December 2022, and 382 in January 2023 (an % increment of 44% and 38% for the same timeframe, respectively).

# **CONCLUSION/LESSONS LEARNED**

### RESULTS

• HFs use paper-based daily registers, which result in poor data collection and quality, leading to insufficient contact and demographic information about the vaccinated children. This creates difficulty contacting caregivers for further vaccinations • Despite the effectiveness of the SMS notification reminders, many parents/caregivers who do not have a functional phone number, or live in areas where there are limited available functional telecommunication service providers. • CMWs play a crucial role in increasing children immunization, supplemented by the SMS reminder system to reach caregivers. Parents who have no contact number are contacted by CMWs to visit the health facility for the vaccination doses.



