Background

This brief presents a summary of the midline evaluation conducted in June 2023 by the University of the Western Cape and the University of Cape Town for VillageReach’s Let’s Talk About Vaccines (Bate-Papo Vacina in Portuguese) pilot project. The project started in 2020 as a community-based participatory research and human-centered design project in Gile and Namarroi districts, Zambézia province. In September 2022, VillageReach implemented the co-created Bate-Papo solution in collaboration with health workers, Agentes Polivalentes Elementares (APEs - Mozambique’s community health workers), caregivers of children under two years old, and district and provincial health authorities. At the time of the midline evaluation, the Bate-Papo pilot solution had been in operation for 7 months across 11 health facilities and their respective catchment areas in Gile and Namarroi.

Methods

This evaluation employed a cross-sectional, mixed-methods approach to assess processes and outcomes. For qualitative data, we purposively selected 15 participants for in-depth interviews, including VillageReach staff, health facility workers (HFWs), APEs, and Expanded Immunization Programme (EPI) officials in both intervention and control sites. Quantitative data were extracted from SIS-MA and the Zambézia Provincial database. To assess outcomes, we conducted descriptive and inferential analyses of four key indicators: (1) DPT1-DPT3 immunization dropout rate, (2) the number of vaccinations recorded by the mobile brigades, (3) the proportion of vaccinations administered by the mobile brigades, and (4) the number of planned and executed mobile brigades.

Key Findings

To date, there has been a high level of fidelity in implementing the components of the Bate-Papo solution in all implementation sites. Qualitative and quantitative results indicate significant improvements from baseline to midline in routine immunization outcomes within intervention sites, with a 22% increase in the average number of total antigens delivered and a 56% increase in the average number of fully vaccinated children per month.

However, it remains unclear to what extent these improvements can be solely attributed to the intervention. Interrupted time series analysis comparing intervention and control sites pre- and post-implementation showed no statistical difference in outcomes. Within the intervention sites, a positive trend in monthly antigens delivered and the average number of fully vaccinated children began several months prior to implementation. Further investigation is needed to understand these trends, but one possibility is that improvements began during the human-centered design and training phases.
According to key informant interviews the following have improved as a result of the Bate-papo Vacina solution.

✓ **Increased role and scope of APEs,** who are now equipped with knowledge and support tools to collaborate closely with HCWs and community actors in providing immunization education and supporting routine immunization mobile brigades.

✓ **Improved community trust in EPI and health services,** leading to improved social norms regarding caregivers seeking health services instead of alternative treatments for children's side effects.

✓ **Increased family involvement in RI,** with more family members taking children for vaccination services, thus reducing the burden on mothers.

✓ **Enhanced caregiver knowledge and awareness** of the importance of immunization and the immunization schedule.

✓ **Better-equipped APEs** with knowledge and supporting tools to work closely with health providers and community actors, which is critical to improving immunization mobilization and education among caregivers.

✓ **Increased attendance at mobile brigades,** with HCWs reporting higher attendance due to APE and other community actor support in planning and notifying community members in advance.

✓ **Recognition and incentives for APEs,** who often have to travel long distances to attend monthly planning meetings and lack transportation support and recognition for their contributions to the solution.

**Discussion**

At the midline evaluation, the Bate-Papo solution has gained high adoption among key stakeholders and is promising to improve key immunization outcomes. It aligns with national and provincial initiatives, such as the Reach Every District/Reach Every Community (RED/REC) strategy. The solution is perceived to have a relative advantage in strengthening health performance, community capacity, and community involvement compared to other interventions in the district due to its training, integration with existing local structures, and provision of supporting tools such as pictorial cards and prioritization matrices. VillageReach has also established an inclusive and comprehensive monitoring system for continuous solution improvement.

However, it is worth noting that while the Bate-Papo solution positively increases demand, it does not directly finance EPI activities, and the team will have to consider innovate approaches to ensure sustainability of the logistics incentives, which could potentially impact motivation levels if not sustained.

**Recommendations**

Although the midline implementation outcomes of the pilot project are positive, sustainability planning should be a primary focus for the remaining period of the pilot solution's implementation. This includes:

- Supporting and strengthening the capacity of local structures.
- Regularly communicating progress at all levels to garner commitment to immunization access and uptake.
- Considering applying lessons learned and solution components to other childhood and EPI priorities, such as nutrition.
- Exploring other mechanisms used in VillageReach's work to address context barriers, including transportation solutions to support equitable supply chain reach.
- Using available evidence to advocate for system changes and address resource constraints.
- Engaging other partners in sustainability planning, including developing a joint funding strategy.

**Challenges**

Despite these significant successes, ongoing system and context challenges continue to hinder transformational change. These challenges include:

✓ **Resource constraints** at the district and health facility levels, including insufficient funds to conduct all mobile brigades and transportation-related issues.

✓ **Environmental impacts** such as seasonal weather patterns, including rain and flooding, and natural disasters that hinder access to particularly hard-to-reach areas.