Collaborating with women's groups: A promising approach to identify and reach zero-dose children in urban Mali

A CASE STUDY

1. IN MALI, LEVERAGING WOMEN'S GROUPS HAS BEEN UTILIZED AS A STRATEGY TO ADDRESS THE PERSISTING HIGH NUMBERS OF ZERO-DOSE CHILDREN IN URBAN AREAS

Although rural areas in Mali have higher prevalence of zero-dose (ZD) children than urban areas, the highest absolute numbers of ZD children are found in urban areas, including Sikasso, the third most-populous region in Mali. This has prompted Mali to undertake innovative pro-equity strategies, such as leveraging women's groups to address gender-related barriers and help identify and reach ZD children.

Despite a brief drop in diphtheria, tetanus, and pertussis third dose (DTP3) vaccination coverage in 2020 to 70% due to the COVID-19 pandemic, Mali has maintained a high level of coverage at 77% between 2017 and 2022 according to WHO/UNICEF Estimates of National Immunization Coverage (WUENIC) (World Health Organization). This is also reflected by a significant reduction in under-five mortality caused by diphtheria, measles, and tetanus in the past two decades (Gavi Zero-Dose Learning Hub, 2023). However, less than 50% of children in Mali receive all essential childhood vaccinations, and rates of under-immunization and ZD children vary widely throughout the country, with half of ZD children concentrated in 21% of the country's districts, including districts within the Sikasso region (Gavi Zero-Dose Learning Hub, 2023). This case study will explore how Mali worked to identify and reach ZD children in urban areas, specifically Sikasso, by leveraging women's groups as a pro-equity intervention. Community-based strategies like leveraging women's groups could help address challenges to vaccination in urban Mali, such as motivation of health workers, motivation of caregivers to get their children vaccinated, sustainability of campaign-style activities, and responding to outbreaks of vaccine-preventable diseases such as measles.

CONTEXT

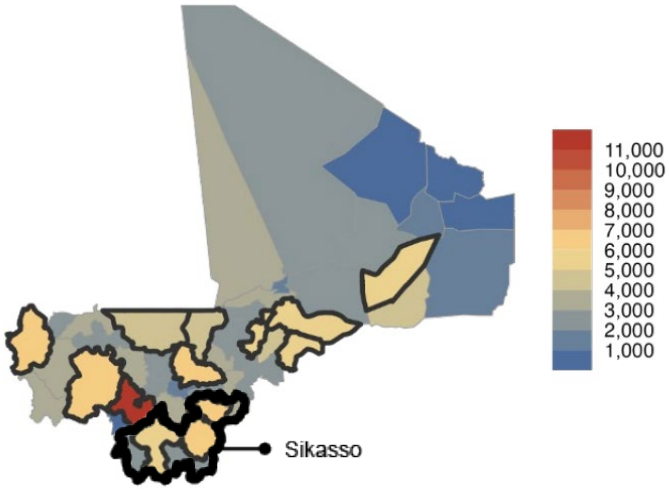
Mali has a relatively young population, and despite recent progress, rates of under-five mortality remain high. Like countries around the world, Mali experienced challenges with maintaining delivery of health services during the COVID-19 pandemic. The country also experienced a military coup in 2020 that heightened security concerns, in addition to ongoing regional conflict and civil

unrest. Mali also has high gender-based inequities, exemplified by one of the highest maternal mortality rates in the world, widespread gender-based violence, and significantly lower educational attainment among women than men (Tucker, 2023). Within this context, improvements in immunization programming with a pro-equity and gender-transformative focus can be highly impactful but challenging to implement.

Mali's population has a median age of 15.3 years and total fertility rate of 5.79 children per women. In 2023, the under-five mortality rate was 86.2 deaths per 1,000 live births, down from 188.6 in 2000 (United Nations, 2022). Mali ranks 155th out of 170 countries comprising the United Nations Development Programme (UNDP) Gender Inequity Index (Tucker, 2023).

Sikasso is the third-largest administrative region in Mali in terms of population and comprises 10 health districts (Figure 1). There are many zero-dose and under-vaccinated children living in Sikasso, particularly within the catchment areas of 11 urban community health centers (CSCs). Sikasso has been identified as a region in Mali that attracts internally displaced populations, as well as other migrants, seeking economic opportunities (World Bank, 2022). These populations face additional challenges to receiving health services, including vaccination, which may explain why urban areas within Sikasso have high numbers of ZD children. Notably, a recent ZD landscape of Mali found that children in rural areas are more than twice as likely to be ZD as children in urban areas (Gavi Zero-Dose Learning Hub, 2023), although rates in Sikasso demonstrate that critical urban pockets of ZD children remain.

Figure 1. Number of ZD children by district of Mali (Gavi Zero-Dose Learning Hub, 2023; IHME 2021 data cited in Gavi Secretariat, 2023).



KEY LESSONS LEARNED

- Women's groups in urban Mali can help combat challenges to vaccinating children and contribute to increasing demand and awareness for childhood immunization.
- Key informants identified engaging women's groups as a key strategy for identifying and reaching ZD children.

CHALLENGES ADDRESSED BY INTERVENTION

There are unique challenges to vaccinating children in urban areas in Mali that women's groups may help combat. First, hesitancy and reluctance from caregivers to vaccinate their children, stemming partly from misinformation and rumors, have led to low demand and utilization of vaccination services (Abdoulaye, 2022). Leveraging women's groups can potentially address this challenge as studies have found that communities in general find it acceptable for women to provide information on issues pertaining to maternal and child health (FHI 360, 2023). Additionally, the COVID-19 pandemic posed increased challenges to vaccination and care-seeking as gatherings and travel were restricted, disrupting delivery and uptake of routine immunization services (USAID, 2020). Leveraging women's groups can help address this challenge as women's group members can proactively go into communities to mobilize and educate communities about the benefits of vaccination, versus clinic-based strategies that rely on proactive care seeking. Third, as noted above, gender inequities in Mali are high. Leveraging women's groups may help combat gender-related barriers by providing a forum where women can learn from other women, which may shift prevailing gender norms and provide opportunities to increase women's empowerment and agency.

METHODS

To understand how women's groups were leveraged for immunization activities in urban Mali and how they may have affected vaccination rates, qualitative interviews were conducted with key informants in Mali, supplemented with information from published and grey literature. Key informants worked for the Expanded Program on Immunization (EPI), UNICEF, the National Immunization Center, and a community health center. Interviews were conducted in April–October 2023. Informants shared their perspectives on interventions that sought to leverage women's groups to improve immunization among under-immunized and ZD children in urban areas. This information allowed for a greater understanding of the value and challenges of leveraging women's groups as a pro-equity intervention to identify and reach ZD and under-immunized children. Notably, women's groups were only one element of the urban immunization strategy, and it was not possible to formally and quantitatively evaluate the direct impact of women's groups alone on vaccination rates, nor was this the main goal of the case study. The purpose of this inquiry was to understand how women's groups were leveraged to identify and reach ZD children, assessing enablers and barriers, and synthesizing lessons learned for potential use and scale-up within other contexts.

2. WHAT: COLLABORATION WITH WOMEN'S GROUPS TO IDENTIFY AND REACH ZERO-DOSE CHILDREN IN MALI

Women's groups are involved in the Reach Every District (RED) strategy, which has become an integral part of Mali's immunization program.

An urban vaccination strategy was developed by a variety of international and local partners to reach under-vaccinated children, with a focus on behavior change and increasing demand and awareness of vaccines among parents and caregivers. The urban immunization toolkit was used to improve immunization in the urban context. Women's groups were identified by the local social development department and community health associations to support operationalization of this strategy in the Sikasso region of Mali in 2019. However, this collaboration did not begin until the end of 2022 due to delays.

"The involvement of women's platforms at community level in the search for the few cases of zero-dose children was a successful intervention"

—Key Informant at the EPI

Collaborating with women's groups in Sikasso was decided upon, in part, based on the past success of this strategy in other urban areas of Mali, including Bamako. Organizations such as the World Health Organization (WHO) and UNICEF had been leveraging women's groups to identify ZD children since 2018 in Bamako, which became known as "the Bamako model." The Bamako model was adapted for implementation as part of the urban vaccination strategy in Sikasso, specifically within the catchment areas of 11 urban health centers selected to maximize reach to areas with significant numbers of ZD children. Notably, some women's groups existed in Sikasso before this strategy was created, which facilitated its implementation but added steps regarding group member selection. The profiles of each group member were reviewed in these cases to see if more than half the women could support this effort, and then group members were selected. Other groups were created specifically for this purpose, designed using the immunization toolkit.

In total, 330 members of women's groups were trained in Sikasso as volunteers to identify under-vaccinated and ZD children, with training specifically in communication (supported by UNICEF), home visits, and tracking cases of under vaccination and ZD.

Women's groups' primary role in carrying out this strategy involved awareness-raising about the importance of vaccination and providing information on vaccination sessions, or when and where vaccines can be received. The strategy included three home visits each month by each participating women's group member with three main objectives: actively search for children lost to follow-up for vaccination, raise awareness regarding vaccination, and identify malnourished children. It is also possible that these visits could have identified children who had not been previously reached for vaccination. The identification of malnourished children is relevant because it speaks to common vulnerabilities and the potential to integrate related health services through community-based engagement. Missed communities and ZD children often face multiple vulnerabilities, including malnutrition, which may serve as a proxy for under-vaccination. Although not explicitly mentioned by stakeholders, it is likely that the connection with nutrition was related to ongoing women's groups activities that were occurring prior to the addition of immunization-related activities.

3. HOW: TECHNICAL ASSISSTANCE, INCENTIVES, AND ENGAGEMENT OF LOCAL ENTITIES

Collaboration among local entities was crucial for collaborations with women's groups, including the administrative and health authorities, the local social development department, and local community platforms such as relays and members of community health associations UNICEF also provided technical assistance via communication specialists, though key informants emphasized that this was a largely local initiative.

"The women's groups were trained to search for cases of children who had dropped out of vaccination, those who had never been vaccinated."

—Key informant

ACTIVITIES OF THE WOMEN'S GROUPS RELATED TO REACHING UNVACCINATED CHILDREN

To support efforts to identify and reach under-vaccinated children, women's groups conducted a variety of activities. Members were provided a list of under-vaccinated children (generated using immunization records) based on their proximity to the community or their familiarity with families. This list was drawn up by members of the district management team during baseline data collection for the urban strategy by reviewing vaccination registers. Vaccinators provided the list of missed children to group members on a weekly basis and then provided

monthly monitoring. They were also provided telephone numbers for parents and vaccination vouchers to give to caregivers of children who were missing vaccines. Although not explicitly mentioned by key informants, visiting homes and areas of children lost to follow-up could also have identified ZD children or those never reached with immunization.

Group members then went door-to-door in pairs to identify and record under-vaccinated children, as well as provide vaccination information to households. The women also organized sessions to raise awareness about vaccine-related events in settings such as “women’s gatherings” and markets. Although not explicitly stated by stakeholders, it is likely that these sessions helped women reach under-immunized and ZD children who had not been previously identified on lists provided by the district health management team.

WOMEN’S GROUPS HELPED OVERCOME CHALLENGES TO IMMUNIZATION

Key informants reported that women’s groups were essential in overcoming challenges to vaccination in urban Mali. Informants noted that it was important to have vaccination services on the weekend so that mothers and caregivers who work during the week still have to opportunity to get their children vaccinated. Women’s groups participated in these weekend activities, helping to generate demand and support delivery of immunization services. Notably, low motivation among health care workers is a challenge faced in Mali, and having women’s groups support the delivery of immunization activities could help compensate for this challenge.

In some cases, women in households were reluctant to meet with members of the women’s groups, as they said they were not health workers and did not trust the messages they were sharing. The program is planning to address this problem of trust and visibility by providing all group members with identifying vests.

INTRODUCTION OF INCENTIVES AND CHALLENGES WITH OPERATIONALIZATION

Providing incentives to members of women’s groups was a challenge of this approach that warrants further examination and consideration. Payment in the form of incentives was introduced, following the Bamako model, in which 2,000 CFA (about 3 USD) would be paid per woman per home visit. As the model included three home visits each month to actively search for children lost to follow-up, raise awareness, and identify malnourished children, the plan was to pay each woman 6,000 CFA per month. However, a lack of financial resources

created challenges in paying members. The number of home visits conducted was close to what was anticipated, but after a budgetary review, each woman was paid the incentive for only one home visit (2000 CFA), regardless of the number of visits conducted.

This experience raises critical concerns regarding the provision of financial incentives and their potential impact on helping or hindering an intervention become gender transformative. If incentives were provided as intended, their provision could have worked to improve women's economic standing in the community, thus potentially improving agency and shifting gender norms. Provision of incentives also could have helped offset any opportunity costs women incurred when conducting their immunization-related activities, thus making their decision to become involved more financially viable. However, by not providing incentives as intended, the intervention could inadvertently have harmed women who might have been expecting the incentives and become indebted as a result. Women might have lacked the agency to raise these issues with program implementers, and this may have led to potential harm.

ENABLERS AND BARRIERS TO SUCCESS

Key informants, as well as the urban immunization strategy, presented a variety of facilitators and barriers to collaborating with women's groups for immunization purposes in urban Mali. One issue that was raised as both an enabler and a barrier was constraints placed on where and to what extent women can engage in women's groups. For example, religious groups (Sunni and "pieds nus," the barefoot ones) in the central and northern regions of Mali limit women from frequenting public places, which can prevent women from engaging in women's groups. This constraint limits who can participate in women's groups, thus serving as a barrier to having fully representative women's groups, and limiting their potential impact, as well as reinforcing existing inequitable gender norms. Conversely, key informants noted that women's groups can work to dismantle gender-related barriers, especially those related to the gender of vaccinators and those who spread awareness. Therefore, the existence of women's groups and their work on immunization was also perceived as an enabler with potential long-term gender-transformative benefits.

Additionally, selection of women from women's groups to conduct immunization activities and selection of the women's groups themselves was crucial. In Sikasso, group members were selected based on proximity to the community or familiarity with families. The groups were selected depending on whether they were already involved in health promotion activities/had been trained, and if no

KEY LESSONS LEARNED

- Key enablers to leveraging women's groups included deliberate selection and training of group members and provision of key resources such as lists of under-vaccinated children and vests.
- Key barriers included lack of financial resources, large coverage areas, and lack of trust from community members.

groups met these criteria, group members were selected in collaboration with the community health committee. This selection process helped maximize the potential benefits of the program by selecting women with familiarity with families in priority areas, and also helped keep costs low by working with pre-trained, pre-existing groups when possible. Along these lines, adequate training for women's groups members on their role in supporting the urban vaccination strategy, or selection of groups that had been trained, helped enable implementation. Conversely, there were some barriers to the selection process, including that sizes of areas covered by women's groups might have been too large, thus making it logistically challenging to reach all households in need.

Regarding tasks conducted by women's groups members, providing lists of under-vaccinated children to women enabled them to reach those known to need immunization services. However, the lists proved to be limited in some ways as group members sometimes found that children and their caregivers had moved away since creation of the list, and incorrect telephone numbers on the lists created logistical barriers to reaching families.

Additionally, some stakeholders reported that some community members were reluctant to meet with women's groups, citing a lack of trust in the messages and perceived authority of women's group members to provide such health-related messages. Providing vests to women, known as "visibility kits," helped increase trust and visibility of these groups within communities.

Finally, as described above, the lack of financial resources to provide payment to participating members of women's groups also served as a barrier, especially as women did not receive the full amount of financial incentives that had been promised, which could have contributed to demotivation among women's groups members, or even caused harm.

4. RESULTS

Because this intervention has been implemented for a relatively short time, final results are not yet available. However, initial findings highlight that leveraging women's groups in Sikasso appears to be successful in helping identify and reach under-immunized and ZD children with vaccination, such as by providing information to families about vaccination and opportunities to vaccinate their children and working with district officials and health systems to identify and record under-immunized and ZD children within these urban communities so they can be reached with vaccination.

According to key informants, after receiving training to recover under-vaccinated children, women's groups helped identify about 36% of children lost to follow-up between January and September 2022 in urban areas. Notably, this figure reflects all urban areas and therefore includes reductions in Bamako, which involved women's groups before they were leveraged in Sikasso.

One stakeholder working on the initiative found that 652 under-vaccinated children and six ZD children were recovered by the women's groups after a follow-up mission, supported by UNICEF and WHO, that allowed children to be counted across registers (ZDLH X report, 2023).

There was also evidence that women were more dedicated and motivated when they were paid incentives for carrying out immunization-related activities. For example, when women received incentives, substantially more home visits were conducted.

Additionally, having more engaged communities through leveraging women's groups led to unexpected, positive outcomes, such as improved outbreak response. Women's groups proved crucial in responding to a recent outbreak of measles as they were able to work with community leaders to emphasize the importance of immunization and encourage community members to adhere to vaccine schedules.

KEY LESSONS LEARNED

- For immunization programs to successfully leverage women's groups at a national level, they must ensure that the groups are maintained and supported at the local level, complemented with technical assistance and training.
- Before this collaboration with women's groups is replicated in other settings, many topics should be considered, including cost and available resources, current presence of groups, and community ownership and trust of groups.

5. LESSONS LEARNED AND RECOMMENDATIONS FOR SCALE-UP

In Mali, collaborating with women's groups is fundamentally a local strategy, comprising women from the communities in which they are volunteering. Maintaining this local nature, supplemented with adequate training, technical assistance, and funding from external sources, is crucial for their success. Furthermore, enhancing trust among communities of women's groups will facilitate the effectiveness of their activities and messaging. Implementing these interventions within enabling environments, and clarifying roles and relationships within health systems, also serve as lessons learned from this experience.

Group member selection has a substantial impact on performance and should consider the size of the area to be covered as well as training needs. Additionally, programs need to carefully consider whether providing financial

incentives would improve motivation and ability of women's groups to reach ZD and under-immunized children and whether their approach aligns with the WHO guidance on the rights of community health workers, including payment. If financial incentives are being considered to support members in the women's groups for their role in activities related to immunization, payment mechanisms need to be clear, planned in advance, with adequate resources, and monitoring/accountability strengthened to ensure plans are followed as intended. It is imperative that the provision of incentives, if agreed upon, is carried out as planned to prevent a potentially gender-transformative intervention from causing gender-related harm.

NEXT STEPS

Women's groups are continuing to be engaged in Sikasso to reach children with immunization. New features are being added to address challenges, such as the provision of vests, called "visibility kits," to the group members to increase their legitimacy in the community.

There has been increasing engagement of women's groups globally to address community-based health initiatives, including immunization, since the Alma-Ata Declaration, which recognized the importance of the participation of all people, including those outside the health system, in health care (FHI 360, 2023). Women's groups are an example of community groups that often exist for members to gain resources, knowledge, skills, and social and networking opportunities (Kumar et al., 2018). As more programs consider engaging women's groups to further their health objectives such as childhood vaccination, it will be crucial to consider lessons learned from cases such as the Sikasso women's groups. A gap in the existing literature is a lack of evidence on women's groups in fragile or conflict-affected settings and urban poor settings, as well as a lack of evidence related to the impact of women's groups on immunization and under-vaccinated children. The Sikasso example provides an example that begins to address this gap.

Additionally, as women's groups are a primarily local and small-scale program, external funders, local government, and program managers must ensure that members are adequately trained as well as genuinely engaged in setting strategic priorities, designing the program, implementing activities, monitoring results, and engaging in accountability mechanisms. This will contribute to enhanced ownership and sustainability, and it will likely optimize program impact. It will also contribute to addressing critical gender-related barriers while increasing women's empowerment. To ensure programs are not gender harmful,

managers need to be especially attentive and quickly address the risk of groups being instrumentalized for programmatic purposes. When those risks are not adequately addressed, those practices could potentially harm women's autonomy and agency in a community, and avoiding such situations needs to be a programmatic priority. This applies whether existing groups are leveraged for an intervention or groups are established for that purpose.

HOW CAN COLLABORATIONS WITH WOMEN'S GROUPS HELP IDENTIFY AND REACH ZD CHILDREN?

In this case study, collaborations with women's groups mainly focused on identifying and reaching under-immunized children, not ZD children. However, some of the women's group activities described by key informants could have reached ZD children, such as holding general community sensitization meetings and going door-to-door with vaccination information. In the future, it could be important for programs leveraging women's groups to try to understand if and how group activities reached ZD children and to document such instances when possible. Programs could also add ZD objectives and include training on how to identify and reach ZD children. Additionally, as with any intervention leveraging women's groups, taking certain steps might help ensure that women's groups are well-positioned to reach ZD children, including ensuring equitable participation from women belonging to marginalized groups and committing to meaningful engagement of women's groups members in the design and implementation of intervention activities to ensure activities are tailored to the local context and reflect community values.

SCALABILITY

There are several key considerations for scaling up interventions leveraging women's groups at the community level. First, as discussed above, decisions on whether to provide financial incentives for women's groups for tasks performed related to immunization need to be carefully considered. If incentives are to be provided, it is imperative that programs factor in the cost and ability to provide financial incentives to members of women's groups, in addition to creating adequate monitoring and accountability mechanisms. These steps are necessary to ensure the provision of incentives (or lack thereof) do not lead to harm.

Second, programs should consider the extent to which women's groups already exist in priority areas (which, depending on the objectives, may include areas with the highest numbers of ZD children) and what their purpose and priorities are, to be able to understand the ease of leveraging existing groups to incorporate immunization-focused activities. For example, if groups exist and are already working to address health-related issues, such as nutrition, adding

immunization activities could result in synergistic impacts. Along these lines, it is important for programs to understand whether there are regional or national efforts (or lack of them) to mobilize women's groups and what programs these mobilization efforts prioritize.

Third, scaling-up collaborations with women's groups requires health systems that value and welcome contributions from women's groups and have structures in place, or are willing to build structures, to ensure monitoring and accountability. Clarity on contributions and roles of women's groups within health systems will help ensure mutually beneficially partnerships, as well as provide accountability and help ensure clear communication. In Sikasso, the lack of clear understanding of the role of women's groups as partnering with the health system led to decreased trust of women's groups to deliver health messages by some community members. To be effective, it is critical that programs ensure women's groups receive appropriate training and are valued and respected by health systems, as well as communities.

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