ENHANCING THE MICROPLANNING PROCESS WITH HUMAN-CENTERED DESIGN

Lessons from Ga South District, Ghana

BACKGROUND

Ghana, like many other countries, has faced a number of challenges as it aims to increase equitable vaccination coverage. Certain areas and populations experience inequitable coverage and lower vaccine uptake due to factors such as misinformation about vaccines, poor service quality, and lack of awareness of the benefits of vaccination. These same challenges affected COVID-19 vaccine delivery. About 36 percent of the target population is fully vaccinated against COVID-19, far lower than the World Health Organization (WHO) goal of achieving 70 percent coverage by mid-2022 (1, 2).

As part of the Behavioral Science Immunization Network (BeSIN) project, JSI and the Ghana Health Service collaborated to identify persistent vaccine acceptance and demand challenges where behavioral science could be applied to overcome them. The Ghana Health Service and its partners identified low COVID-19 vaccine uptake, particularly in urban communities, as a major challenge. According to Ghana Health Service administrative data from June 2022, Ga South was one of 167 districts where between 25-49.9% of the eligible population were fully vaccinated against COVID-19 and was also among the 10 districts with the highest number of unvaccinated children. For these reasons, Ga South was chosen as an ideal location to test different behavioral science approaches and processes to support its goals of improving uptake and coverage of COVID-19 vaccines in the district.

INTERVENTION: INCORPORATING HUMAN-CENTERED DESIGN INTO THE MICROPLANNING PROCESS

Based on current interest and previous experience applying the human-centered design (HCD) process to the second year of life vaccination, JSI and the Ga South district Expanded Programme on Immunization (EPI) officials decided to incorporate HCD into the COVID-19 microplanning process.

What is human-centered design?

Human-centered design (HCD) is the process of integrating human perspectives in all steps of the problem-solving process. The process aims to better understand an issue from the human perspective and focuses on how it looks and feels to users and stakeholders within their environment and context. HCD can help find solutions to issues such as: the complexity of navigating and coordinating stakeholder ecosystems; the difficulty in changing user health behaviors; the barriers to scaling compelling solutions; and the challenge of appropriately measuring health impacts.

Adapted from: Glossary of Design Terms

Immunization microplanning is a planning process/tool used by health workers to identify priority populations, overcome barriers to vaccination, and develop workplans at the sub-national level. When done correctly and well, microplanning can significantly improve the design, implementation, and monitoring of immunization services. As microplanning is routinely conducted, including for COVID-19 vaccination, this was a clear entry point to incorporate HCD to explore if its application could enhance an existing process.

INTERVENTION DESIGN AND IMPLEMENTATION

JSI collaborated with the Ga South EPI to organize a four-day HCD-incorporated microplanning workshop, with a long-term goal of contributing to increased COVID-19 vaccination coverage by improving the design, implementation, and monitoring of COVID-19 vaccination microplans. The main objective of the workshop was to understand the role and influence of HCD in the design, implementation, and monitoring of COVID-19 vaccination microplans at the health facility level by examining health worker and community member perspectives on the facilitators, barriers, value, and effects of the use of HCD in COVID-19 vaccination microplanning.

The workshop was designed in two phases, each lasting two days, using tools from the Human-centered design for tailoring immunization programmes (HCD-TIPs) guide (3). The first phase aimed to provide a refresher training of the microplanning process and to develop district and sub-district health teams knowledge and skills in the HCD process. During the second phase, community members joined the sub-district health teams to participate in the HCD process. The sub-district health teams led the process and were supported by facilitators. The four-day workshop brought together a total of 52 participants, facilitators, and coordinators. Workshop participants used tools including personas and journey mapping (i.e., the Journey to Health and Immunization) to identify obstacles and enablers to COVID-19 vaccination and generate ideas for potential solutions (4). By the end of the workshop, participants prioritized solutions to test and developed district-specific action plans to amend to their microplans. Through the project, JSI provided financial support for Obom, Bortianor, and Amanfro sub-districts to implement their action plans.

Results: Perspectives from Health Workers and Community Members

JSI administered pre- and post-workshop written questionnaires for health workers and post-workshop interviews for community participants to gather their perspectives on the facilitators, barriers, value, and effects of HCD-incorporated COVID-19 vaccination microplanning. JSI then conducted a rapid qualitative analysis to examine the responses.

Health worker perspectives: Prior to the workshop, about half of the health workers had heard of HCD before, but overall it was a new concept to them. Health workers expressed that microplanning was a top-down process where decisions were made at a higher level without consulting community members.

After completing the workshop, health workers were able to describe the benefits of incorporating HCD into the microplanning process and felt that they could use HCD in future microplanning for immunization and other services. The majority also thought that using HCD would help improve vaccination coverage and uptake. They also saw value in incorporating HCD into microplanning, noting that community engage in the process boosts community ownership, addresses vaccine misconceptions, and provides a better understanding of barriers to vaccination and effective solutions to overcome them.

Community member perspectives: Participation in microplanning was a new experience for all community members who took part in this workshop. Respondents noted that the workshop helped them better understand the importance of vaccination, the vaccination planning, delivery, and monitoring processes, and the constraints that go along with these elements. Community members felt comfortable sharing barriers to vaccination as well as suggestions for overcoming them. The most commonly reported barriers fell into three categories:

Lack of access:
shortage of vaccines, distance from health facility

Dis/Misinformation:
believing that vaccines cause infertility, impotence, death

Poor interpersonal communication:
lack of encouraging dialogue with health workers about vaccines

All community members that responded stated that they would feel comfortable communicating with friends, relatives, community members, and health workers about activities to strengthen uptake of COVID-19 vaccination. Additionally, they noted similar reasons to health workers that involving community members in microplanning is a good idea. These include that their participation offered an opportunity to share context-specific barriers and solutions, expanded ownership over action plans, increased commitment to vaccination, and made vaccinating the community "easier."

"Involving the community people makes the entire exercise smooth and less stressful, and it is easier for [people] to accept the vaccine willingly."

- Community member

Results: Implementation of Sub-district Action Plans

The team conducted follow-up interviews with 9 health workers from Obom, Bortianor, and Amanfro sub-districts (3 staff from each sub-district) after three months implementing their workshop action plans.Through the interviews, we sought to understand how the HCD-incorporated microplanning process influenced the implementation and effectiveness of the action plans. Most participants reported that implementation went smoothly. The main challenges they faced were related to delays in receiving funds and coordination across stakeholders. Almost all health workers mentioned that the engagement and support of the community members were critical to successfully implementing the action plans.

"The involvement of community stakeholders contributed to the effectiveness of the action plan. The right populations were targeted for education and vaccination campaign[s]."

- Disease Control Officer, Amanfro sub-district

"Teamwork between Health workers and the stakeholders who were trained contributed to the effectiveness of the action plan. They showed the team the community dynamics and what strategies would lead to more vaccination."

- Public Health Nurse, Obom sub-district

Health workers noted the following benefits of community member engagement:

- Improved design of activities that are more responsive to community needs
- Better understanding of community dynamics and strategies that would lead to increased vaccination
- Additional human, financial, and physical resource contributions (e.g., transportation, PA systems) to support activities and promote collective ownership
- Improved ability to identify and reach to priority populations by engaging community influencers
- Stronger linkages between communities and facilities, facilitating increased dialogue on service delivery and experience needs and opportunities

Based on anecdotal, administrative, and comparative data, health workers across all three sub-districts unanimously agreed that the action plans they developed during the HCD-incorporated microplanning workshops helped increase COVID-19 vaccination in their catchment areas.

"The HCD training has taken us far. It has enlightened our ideologists and strategies in achieving the COVID -19 vaccination coverages through the involvement of community stakeholders at all the stages of the exercise – planning to implementation."

- Public Health Nurse, Obom sub-district

The results show that health workers deeply valued the input of community members and felt that their involvement improved the microplanning process, vaccine uptake, and the overall perception of health facilities s in the community.

CONCLUSIONS AND MOVING FORWARD

At the project closeout meeting, participants discussed the need for Ghana to maintain funding to implement HCD training in the fourth sub-district to create and sustain equity and to continuously build capacity and conduct supportive supervision visits in all sub-districts. Increase, long-term funding will ensure that the incorporation of HCD in health systems outlives the scope of this project. Health system strengthening will also necessitate a retraining of staff to include these methods. Participants agreed that it would also be useful to hold further microplanning workshops with community members to draw up a profile for each district to plan for digital microplanning.

Participants also suggested several methods to build on the success of the microplanning workshops. Technical working group participants from academia expressed their interest in incorporating HCD tools and practices into the curriculum of their institutions so that students are exposed to the concept before entering health-related fields. Other participants felt that HCD should be incorporated into other primary health-related issues, not just immunization. The group agreed that it will be important to package and disseminate the lessons learned from the BeSIN project in order to increase the use of behavioral science and HCD to improve health systems more broadly.

The positive feedback from both health workers, community members, and other stakeholders shows an encouraging look at how HCD can advance existing immunization practices and even improve vaccination coverage. As we continue to increase awareness of the benefits of incorporating behavioral science-based and HCD practices into immunization programs, we hope to see these tools and approaches used more widely throughout the health sector in Ghana.

References:

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