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A mother and her daughter show their COVID-19 cards after getting vaccinated in Côte d'Ivoire. Photo credit: Timothé Chevaux, MTaPS

Improving COVID-19 Vaccination Rates in Low-Performing Districts in Côte d'Ivoire

Technical Brief | May 2023 | Côte d'Ivoire

Using microplanning as a tool to improve immunization coverage at the local level

Background

When COVID-19 vaccinations became available in the country in early 2021, Côte d'Ivoire committed to vaccinating 70% of the population aged 12 and over by the end of 2022. This would mean getting vaccines into the arms of more than 5 million adolescents aged 12 to 17 and nearly 15 million adults across the country's 113 health districts.

As the Ministry of Health (MOH) launched its immunization campaign in March 2021, the US Agency for International Development (USAID) Medicines, Technologies, and Pharmaceutical Services (MTaPS) Program (2018–2025) advocated with the Côte d'Ivoire COVID-19 Task Force to prioritize microplanning at

the district level to better organize and refine immunization strategies with the objective of improving the vaccination performance of low-performing districts or bolstering vaccination coverage in districts with a high number of unvaccinated population. Microplanning would help identify the challenges these districts faced and propose corrective measures to address them.

Problem Statement

Despite initial encouraging results from some early COVID-19 vaccination campaigns in the country, Côte d'Ivoire was struggling to meet its ambitious target of vaccinating 70% of the population between March 2021 and December 2022. Earlier campaigns had been hampered by a shortage of vaccinators, late payment of

post-campaign per diems, which demotivated campaign staff, delays in raising the population’s awareness of the upcoming campaign, and a general lack of accurate information on COVID-19 immunizations among the population, which left them open to misinformation and misunderstanding. The microplanning of previous campaigns was carried out by the Expanded Program on Immunization, without taking into account actual data or the specific demographics of each health district. Some districts found themselves with few material resources (such as dilution syringes, security boxes, and motorcycles) and insufficient teams to reach the populations to be vaccinated. The Task Force realized that more effort and better planning would be needed to increase these campaigns' effectiveness. To achieve this, the Task Force decided to undertake a participatory microplanning process in health districts with low immunization coverage.

Technical Approach

To support Côte d’Ivoire in increasing vaccination coverage, MTaPS adapted the World Health Organization’s (WHO) peer-led participatory microplanning tool for Côte d’Ivoire and supported implementation of the tool. The strategy engaged Departmental Directors from the districts with the best COVID-19 vaccination coverage to support their peers in districts that still face challenges in achieving their vaccination goals. MTaPS worked closely with the

Microplanning for COVID-19 vaccination

Within health facilities, equitable distribution and uptake of COVID-19 vaccines, especially by high-risk and vulnerable priority-use groups, require service delivery strategies tailored to the local context, needs and challenges.

COVID-19 vaccination calls for robust, integrated, continuously funded operational microplanning, including detailed roadmaps for vaccinating members of priority-use groups in a given catchment area with scheduled doses of COVID-19 vaccines (primary series and booster doses).

A COVID-19 vaccination microplan summarizes the human, financial and logistical resources needed for COVID-19 vaccination and the geographical, demographic and sociocultural attributes of the resident population and target priority-use groups.

[WHO Guidance on Operational Microplanning for COVID-19 Vaccination. 2023](#)

immunization center managers in low-performing districts to develop a microplan in collaboration with regional and district Expanded Program Immunization Coordinators, Epidemiological Surveillance Officers (ESO), and Departmental Directors of Health (DDH) in well-performing districts.

Stakeholder Engagement

In implementing the microplanning approach to increase COVID-19 vaccination coverage, MTaPS collaborated with the MOH’s Immunization Program to coordinate practical implementation in the 24 selected districts. The MOH participated in this activity by providing human resources and logistics for the implementation of the activity, with the active participation of local immunization stakeholders. The WHO and UNICEF contributed to the development of the microplan tools.

Intervention

In preparation for a December 2022–planned immunization campaign, MTaPS supported the preparation and implementation of microplans to bolster COVID-19 vaccination coverage in poor-performing districts or in those with large numbers of unvaccinated population, as detailed below.

Preplanning

MTaPS supported the COVID-19 Task Force in organizing face-to-face orientation sessions on microplanning in June 2021 for DDH, Regional Directors of Health (DRS), and Local Immunization Coordinators.

Preparatory Phase

■ District selection

Using data from the Côte d’Ivoire Immunization Program, the Immunization Task Force selected districts that met either or both of the following criteria:

- More than 200,000 people aged over 12 years still to be vaccinated
- Less than 40% of the population fully vaccinated

Of Côte d’Ivoire’s 113 health districts, 24 qualified under these criteria: 10 under the first criterion and 19 under the second criterion (5 qualified under both criteria).

- #### ■ Design of the microplan data collection tools
- MTaPS collaborated with WHO and UNICEF to support the Immunization Program in adapting and

validating 10 WHO data collection tools:

1. Immunization microplanning tools: these tools are in Excel and contain four tabs (instructions, settings, list of health districts by region and data by immunization site).¹
2. Operational tools for planning COVID-19 vaccination at subnational levels
3. Mapping of cold-chain facilities at the subnational level
4. Inventory and equipment of cold-chain material
5. Mapping of the means of transport at the district level
6. Vaccine distribution plan
7. Outreach planning
8. Planning for mobile immunization services
9. Social mobilization
10. Mapping community leaders at the subnational level

Following the validation of the 10 microplan data collection tools by the Task Force, the Task Force presented these tools to all COVID immunization partners in Côte d'Ivoire during a weekly meeting of the national COVID Task Force.

■ **Selection and training of national facilitators**

- **Selection of facilitators:** MTaPS supported the Immunization Program in selecting 12 national facilitators from around the country based on their previous experience in microplanning for other types of immunization campaigns and the level of COVID-19 vaccination coverage in the facilitator's health district. Each facilitator covered two districts. In each of the 24 target regions, MTaPS identified a coordinator from the regional immunization program staff with experience in microplanning who was made available to support the Directorate for Coordination of the Immunization Program.
- **Training of facilitators:** MTaPS supported the Immunization Program to provide online training for the facilitators. MTaPS' Monitoring, Evaluation, Research and Learning Specialist and its Immunization Technical Advisors led the

training session. Following the training, the facilitators were deployed to 24 districts.

■ **Microplanning in the health districts**

Development of microplans took place throughout the country over a 5-day period. The microplanning exercise in each district took place over two days and included the following steps:

- **Meeting with the District Management Teams (DMT).** Upon arrival in the district, the national facilitator met with the DMT to harmonize data on the number of people not yet vaccinated in the district; calculate the number of people not yet immunized by health area; review the microplan tools; share microplan tools with the primary health care facilities for primary data collection; and finalize the agenda for the district-level workshop to train staff on microplanning and fill out the microplan.²
- **Technical support for microplan development.** The National team, with MTaPS' support, carried out supportive supervision visits to two participating districts (Soubré and Gagnoa 2) to ensure the quality of microplan development. The team provided technical assistance to facilitators and verified effective implementation of the microplan.
- **Day-long district-level workshop to train staff on microplanning and fill out the microplan.** To ensure microplans were based on reliable data from the sites, MTaPS engaged one participant from each of the district's immunization centers, for a total of 703 managers of 703 vaccination centers in sessions to fill out the microplans. Each session was opened by the DDH or his/her representative and was led by a national facilitator in collaboration with the ESO or the Immunization Officer (IO) of the health region. The workshop included training in filling out the microplan tools (presentations followed by practical exercises), group work for filling out

¹ COVID-19 Microplanning tools, WHO AFRO, version Jan 2022. Included in WHO Guidance on Operational Microplanning for COVID-19 Vaccination. WHO/2019-nCoV/vaccination/microplanning/2021.1.

² The health area encompasses all localities served by a particular health care facility.

the microplan tools, and feedback from the working group. During the training, facilitators shared the data with participating vaccination centers on the remaining number of vaccines per health area as identified during the meeting with the DDH.

To complete the microplan tools, the ESO and IO of the district facilitated working groups of five participants each; the working groups filled in the tools on computers at the training site. Each working group also made a list of challenges encountered during COVID-19 immunization campaigns and proposed possible solutions. The results were shared with the ESO and the IO for each health district.

- **Validation/exchange of information.** The following day, each working group presented its microplan followed by discussion to validate the microplan data. Participants also shared advice on the organization of immunization campaigns. Following the discussions, the health area managers made commitments to implement the advice given by the peers.
- **Consolidation of district microplans.** The day after the training, the facilitator met with the ESO or the IO of each district, and the IO of the region and the national facilitator to consolidate microplan data at the district level. By reviewing the data in the file from each immunization center, the participants analyzed the data relevance and accuracy and consolidated it.

- **Compiling and processing the microplan data at the national level.** Based on the data collected during the microplanning in the 24 districts, the Immunization Program microplan steering team and the MTaPS team in charge of immunization led a half-day meeting to compile and process the district-level data and used them to update the global microplan for the December 2022 vaccination campaign to reflect the needs of the participating districts and to finalize the campaign budget. The Immunization Program then shared the campaign budget with national partners and funders, including UNICEF, the World Bank, and MTaPS.

Results and Achievements

With MTaPS' support, 703 vaccinators from immunization centers participated in the training sessions and contributed to filling in the microplans for the 24 priority districts. The microplans were used for the December 2022 vaccination campaign. Through the participatory workshop process, MTaPS' was able to support the 24 target health districts in developing microplans based on realistic information about the population in the districts. Once developed, these microplans provided detailed guidance for the implementation of the December 2022 immunization campaign in each target district.

Figure 1 presents the results of the December campaign for the 24 districts.

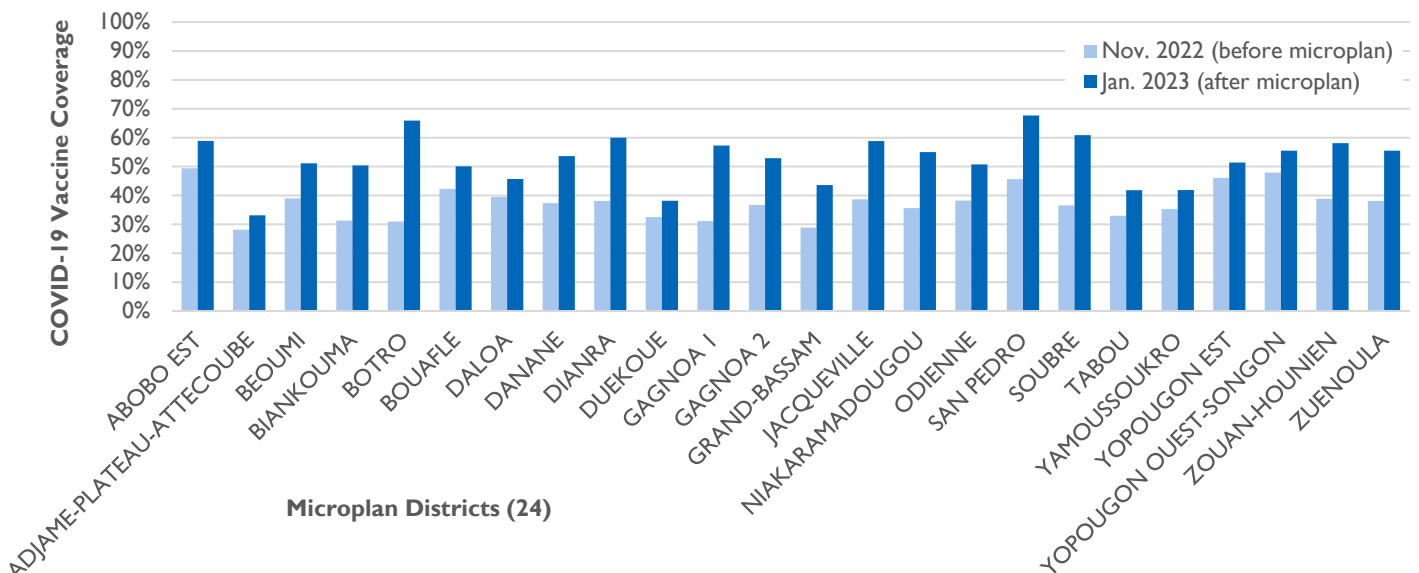


Figure 1. Increase in percent of population fully vaccinated for COVID-19 following microplan implementation in the 24 microplan districts

All 24 health districts that had a microplan in place improved their COVID-19 immunization coverage. As of January 27, 2023, in 75% (18 districts), at least 50% of the population had been fully vaccinated; these districts are no longer considered low-performance districts. Six districts still have a performance of less than 50%. Although vaccination coverage remained below 50% in 6 districts, these districts still demonstrated increases in vaccination coverage, ranging from 16% to 51%.

During the training workshops on the development of microplans, vaccinators with excellent previous performance proved extremely valuable. They were able to share their experiences/best practices with poorer performers to help them incorporate good practices into their microplans and performance. This contributed to the reduction in number and percentage of unvaccinated individuals in all 24 microplan districts.

Lessons Learned

- **Providing data in advance** to the participating primary health care facilities (before the microplanning training workshop) helped participants prepare for the microplanning exercise. Health care workers from the facilities were then able to familiarize themselves with the exact information on numbers of vaccinated individuals and crosswalk this information with local data (such as where in the health area the unvaccinated populations lived).
- **Engaging peers as facilitators** for microplanning helped districts better identify the gaps and problems in their district and incorporate corrective measures into the microplans. Peers from high-performing districts had insights into what works and does not work in reaching populations with COVID-19 vaccines and were able to ask the right questions to help the 24 participating districts target their approaches.
- **Organizing a central-level workshop to validate the microplan data** made it possible to review the information collected and ensure that the necessary resources were allocated for campaign implementation at the district level.

Pathway to Sustainability

With MTaPS support, the country's Immunization Program has systematically integrated district microplanning into its operational action plans. Through the Immunization Program, Health Regional Directorate and Health District Directorate ESO and the Immunization Officer, all under the MOH, have taken ownership of the microplanning tool. They are now able to use the microplanning tool on an ongoing basis to continue to adapt to the situation and tailor future immunization campaigns to be most effective. Additionally, district health directorates and microplan facilitators are fostering the sharing of microplanning experience across districts so that those which have not developed microplans themselves can still learn about them and adapt the microplanning experience to their own district's needs.

Conclusions

The implementation of microplanning in the 24 health districts with low performance or a large number of people remaining to be vaccinated contributed to improved immunization coverage in all of these districts. The improvement was achieved thanks to the involvement of the ESO and the IO of the districts and health regions director and the DDH from the health districts with good immunization coverage. This strategy enabled 19 districts to increase their coverage to at least 50% of the target to be vaccinated. The 6 other districts that were unable to reach 50% were able to achieve an improvement in coverage of at least 16% over the baseline (before microplanning implementation). Still, only 43% of Côte d'Ivoire's population is fully vaccinated as of January 2023. To address this, as COVID-19 vaccination is integrated into routine medical practice, stakeholders in Côte d'Ivoire will need to develop a comprehensive strategy to improve COVID-19 immunization coverage, to include implementation of microplans for the country's remaining 89 health districts.

References

WHO. WHO Guidance on Operational Microplanning for COVID-19 Vaccination. [WHO/2019-nCoV/vaccination/microplanning/2021.1](https://www.who.int/publications/i/item/WHO-2019-nCoV-vaccination-microplanning/2021.1).

WHO. WHO Guidance on Operational Microplanning for COVID-19 Vaccination. Revised May 2, 2023. <https://www.who.int/publications/i/item/WHO-2019-nCoV-vaccination-microplanning-2023.1>.

Acknowledgement

Thank you to the staff from MTaPS Côte d'Ivoire for their support in the development of this technical brief.

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About USAID MTaPS:

The USAID Medicines, Technologies, and Pharmaceutical Services (MTaPS) Program (2018–2025) enables low- and middle-income countries to strengthen their pharmaceutical systems, which is pivotal to better health outcomes and higher-performing health systems. The program is implemented by a consortium of global and local partners, led by Management Sciences for Health (MSH), a global health nonprofit.



This document is made possible by the generous support of the American people through the US Agency for International Development (USAID) contract no. 7200AA18C00074. The contents are the responsibility of Management Sciences for Health and do not necessarily reflect the views of USAID or the United States Government.
