# **COVID-19 INTEGRATION MODEL INTO HIV, TB, and MCH CLINICS**

## CONTEXT

The World Health Organization (WHO) declared the COVID-19 outbreak a pandemic on 11 March 2020. Since then, the number of infections and deaths has increased exponentially globally. With 337,802 confirmed cases, 331,711 recoveries, and 5,672 deaths, Kenya is the eighth African country most affected by COVID-19 among the 47 African countries that reported COVID-19 cases as of 4 August 2022. The rise in severe admissions and critical COVID-19 cases across the country, especially during the fourth wave caused by the Delta variant (July-September 2021), has led to a strain on the health care system. The pandemic has led to vulnerable populations needing access to critical services while also ensuring they reduce the number of clinic visits during COVID-19 waves. Therefore, innovative ways to ensure these populations receive services for multiple needs are essential to improve the efficiency of the health care system.

# THE CATALYTIC COVID-19 ACTION (CCA) PROJECT

In the fiscal year 2021, The Elizabeth Glaser Pediatric AIDS Foundation (EGPAF) was awarded the Catalytic COVID-19 Action (CCA) project, a FIND and Unitaid-funded initiative to strengthen public health responses to the COVID-19 pandemic. The goal of the CCA project is to accelerate end-toend access to novel solutions in the COVID-19 pandemic response by adapting testing, isolation, care, and treatment approaches to meet the needs of three countries—Cameroon, Kenya, and Zimbabwe. The project aims to propel innovation and access to these tailored solutions through five work areas: evidence generation (three research studies), catalytic implementation, advocacy, demand generation, and transition to national programs for a sustainable impact.

# COVID-19 INTEGRATION MODEL IN KENYA

The goal of the COVID-19 integration model is to organize and manage services so vulnerable people of all ages get screened for COVID-19, those eligible for COVID-19 testing get tested, and those identified positive for COVID-19 get the care they need in a timely, efficient, and cost-effective manner. The CCA Kenya team strives to ensure COVID-19 services integrate into maternal and child health (MCH), TB, and HIV services.

Providing essential COVID-19 health services in an integrated manner can increase the efficiency of services for vulnerable patients and reduce costs for the client by seeing a single clinician to provide multiple services. Moreover, the additional time to provide COVID-19 screening was only four minutes in the HIV clinic and five minutes in MCH clinics, with those requiring the test getting their results within 20 minutes. This time has been recouped from the average waiting time of 30 minutes for other services in these clinics as COVID services are offered before the other routine services.

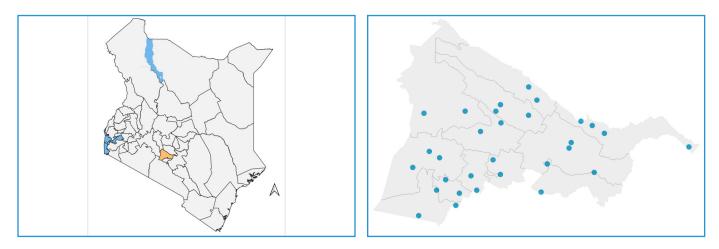




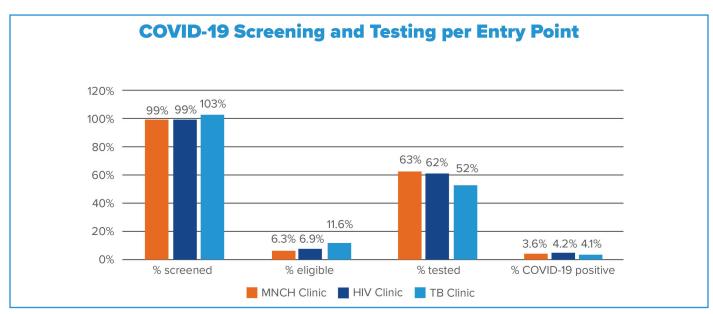


Systematically integrating COVID-19 services into TB, MCH, and HIV clinics can lead to more efficient and cost-effective programs by 1) increasing the use of health services; 2) improving people's access to COVID-19 testing services; 3) reducing facility-related stigma around contracting COVID-19; 4) improving surveillance of COVID-19 among the vulnerable population; 5) avoiding added complexity of TB care through counseling on COVID prevention measures; 6) receiving COVID-19 care through familiar health providers leads to treatment retention; 7) integration improves ownership at the facility level; 8) minimizes incomplete referrals of positive patients.

EGPAF-Kenya supported the Department of Health, County Government of Kiambu to strengthen COVID-19 testing, care, and treatment through an integration model. The visualization map shown in Figure 1 displays the Foundation's integration model into HIV, TB, and MCH clinics in 30 facilities across 12 sub-counties in Kiambu County. Service delivery commenced in February 2022. Figure 2 shows the programmatic COVID-19 testing cascade data in all 30 facilities disaggregated by service delivery entry point for the period February through June 2022.



**FIGURE 1. VISUALIZATION MAP** 



#### FIGURE 2: COVID-19 TESTING CASCADE

Figure 2 programmatic data results reveal high screening uptake among health care staff at all service delivery entry points. A high proportion of eligible COVID-19 patients were TB clients. MCH and TB clinics have over 60% of clients agreeing to COVID-19 testing, while TB clients hover just above 50%. The positivity rate remains below 5%, showcasing the active measures in the community and facility that have led to COVID-19 epidemic control in Kiambu County.

# TECHNICAL APPROACH INTEGRATING COVID-19 SERVICES INTO OTHER CLINICS

For this project, integration refers to strategies for linking, connecting, and bringing together different kinds of services. A key strategy for integrating COVID-19 testing into the HIV, TB, and MCH clinics was the utilization of the World Health Organization's health system strengthening building blocks to ensure the CCA project is a sustainable approach beyond the life of the project. Specifically, the integration model addressed service delivery, human resources for health, monitoring and evaluation, and access to essential medicines.

**1. Service Delivery:** The Foundation has improved the service delivery of COVID-19 services by strengthening the patient workflow, providing clients with timely results, developing key tools to support implementation, and providing infrastructure.

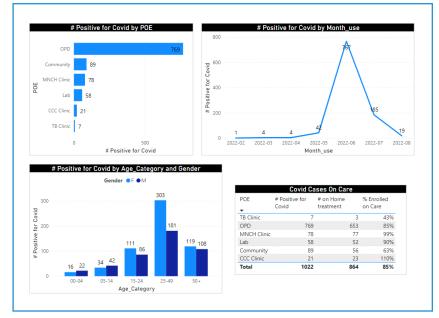
- The majority of the health facilities revised the patient flow to reduce the client's wait time in the clinic. Several sites integrated the location of COVID-19 testing into the same clinic space as COVID-19 screening to ensure clients are seen immediately.
- Providing test results on the same day is key to the integration model working in the facilities. Clients rely on the same-day test results to guide their medical treatment and decide whether to self-isolate. Moreover, county health officials rely on the results to track the state of the pandemic, and the Ministry of Health (MOH) uses this information to guide decisions on covid mitigation measures for the entire population.
- The sites used the following key tools to enable linkages to care as well as entry points in the health system: COVID site readiness tool, COVID screening tool, COVID case management tool, COVID testing opt-out counseling tool, and COVID services site level supervision tools.
- The foundation has provided temporary structures (tents) to increase space for COVID counseling, COVID testing, and/or releasing COVID-19 results.

**2. Human Resources for Health**: Early on, the Foundation identified that not all service providers were properly screening patients for testing, and testing rates were low among those eligible for testing. Contrary to reports of low demand, the Foundation found that providers had a high workload and were not offering to test as frequently. To motivate providers and alleviate some of the burdens, the Foundation implemented several strategies:

- Provision of paid incentives for community health volunteers to support health workers screening for COVID-19.
- Increasing cellular airtime for providers.
- Intensified supportive supervision and mentorship so that providers were able to screen, test, and record the result efficiently.
- The Foundation acquired funds to provide volunteer laboratory technologists with paid incentives to support screening and testing for COVID-19.

**3. Monitoring and Evaluation:** At the project planning stage, it was clear that the M&E systems for COVID-19 were not well developed at the site level, which makes the collection, the utilization of data for decision-making, and the reporting of COVID-19 data challenging. The Foundation addressed this issue by developing an "enhanced monitoring" system, defined as monitoring patient-level data across the COVID-19 screening, testing, care, and treatment cascade at selected health facilities. By collecting this granular, patient-level data across clinical contact points, the

CCA project is equipped to describe patient outcomes better. Specifically, the Kenya team developed a new COVID-19 module that is integrated into the existing Kenya electronic medical record (EMR), which is a MOHapproved EMR system in facilities that implement HIV services and document services in MCH, TB, and HIV clinics. Through the EMR, health workers enter COVID screening, testing, and treatment data directly at the point of care. Integrating COVID-19 data into the existing EMR has allowed for improved data reporting at the national level as laboratory reports



#### FIGURE 3: CCA PERFORMANCE DASHBOARD

are downloaded from the EMR and uploaded to the national reporting system daily.

As the project data are generated and entered, they are visualized automatically on a dashboard, available on the Power BI platform. The dashboard allows the technical managers to view and use the data at different levels (site and project levels) and periods for real-time decision-making and program improvement. This performance dashboard has been shared with the MOH to guide timely decision-making on strategies to contain the pandemic. An example of the performance dashboard can be seen in Figure 3.

**4.** Access to Essential Medicines: Inadequate COVID-19 test kits and shortage of treatment drugs can severely undermine the program's success. Therefore, the Foundation has supplemented the supply of COVID test kits and coordinated with the Department of Health, County Government of Kiambu to distribute test kits to facilities supported by the Foundation. The project has also procured therapeutics through the ACT-A mechanism and has ensured seamless delivery to facilities. Currently, only one therapeutic (Tocilizumab) has been delivered to Kenya. The CCA project provided tocilizumab to all 30 facilities to manage severe and critical COVID-19 cases. In addition, EGPAF-Kenya has continued coordinating with the national MOH to ensure patients in other non-project sites also have access to the drug when needed. Additionally, EGPAF developed stock monitoring tools using the DHIS2 platform to ensure accurate consumption monitoring. The tracking tools are both at the central warehouse (both national and regional) and site levels. The tools track the consumption of the tests and indicate inventory at the end of each reporting period. Plans are in progress to roll out tracking tools for therapeutics as well. The DHIS2 platform was utilized to ensure ease of integration with MOH's DHIS 2 platform once the tools have proven helpful in monitoring stocks for the MOH.

**5. Leadership/Governance:** A key strategy that the Foundation utilized from the project's inception was the engagement with diverse stakeholders to plan for effective and sustainable implementation of the CCA project. In addition, EGPAF orchestrated specific meetings with key stakeholders to get buy-in on specific project components. The EGPAF-Kenya team sought to establish a shared vision, understanding, and joint ownership of the project with county health officials, sub-county health officials, and facility health management teams on the importance of COVID-19 testing integration into MCH, TB, and HIV clinics. Specifically, The EGPAF-Kenya team had an inception meeting with the County Executive Committee Member for Health that led to the appointment of the CCA Project Committee at the county level to support the project. Next, the CCA Project team organized a co-creation meeting with the CCA Project Committee to contextualize the proposed intervention and create ownership. Further sensitization on the project was conducted sequentially to the entire

County Health Management team, the sub-county health management teams, and facility health management teams to solidify project ownership.

At the national level, the EGPAF-Kenya team held a meeting with the Kiambu County Health Promotion Unit, charged with undertaking advocacy, communications, and social mobilization, to adopt information, education, and communication (IEC) materials for COVID-19 testing and vaccination across different health facilities. The EGPAF-Kenya team and the Kiambu County Health Promotion unit also worked to align their annual work plans. Additionally, the Foundation actively participates in the routine MOH Health Promotion Division-led technical working group meetings where implementing partners share data to maintain buy-in into the CCA project and brainstorm key messaging approaches to improve COVID-19 testing uptake. Therefore, EGPAF-Kenya's active stakeholder engagement with various stakeholders was essential to the uptake of the integration model at all levels of government.

### LESSONS LEARNED

The following factors need to be considered when integrating COVID-19 services into other services.

- Harmonization of training curricula and cross-training of providers in TB, MCH, and HIV clinics.
- Training and sensitization of staff on the importance of integration. This includes continuous supervision in close collaboration with MOH officials at the national and county levels.
- Development of communication and relationship channels with key external stakeholders is key to the early adoption of the integration model. Discussions with key external stakeholders include strategic planning, budgeting for intervention beyond the project's life, continuous quality improvement approaches, co-location of screening and testing, coordinated commodity supply chains, and effective referral systems.
- Participatory and active data use and data visualization within MCH, TB, and HIV settings have contributed to the strong ownership and leadership of the Integration model. This includes data collection and reporting, routine sharing of data clinic staff to support efforts to problem solve, discussing approaches to enhance program performance, and continuously ensuring quality improvement approaches are in place.
- COVID screening, testing, data capturing, data collection, and reporting from multiple entry points require investment in human resources including strengthening the implementation of task shifting policy.
- HIV patients' established and trusted relationship with their health care provider often facilitates patients' willingness to accept COVID-19 testing.
- EGPAF-Kenya, with 20 years of experience in HIV service delivery implementation that includes integration of HIV services within the MCH clinic, was able to harness extensive expertise in these fields to rapidly introduce and scale up COVID-19 screening and testing integration into HIV, TB, and MCH clinics.

### CONCLUSION

Integrating COVID-19 into HIV, TB, and MCH clinics benefits patients, health providers, health systems, and government officials. The integration model in Kenya has led to increased access and uptake of COVID-19 testing services to the most vulnerable populations. Moreover, vulnerable populations receive comprehensive, high-quality care tailored to their needs in an efficient and timely manner when COVID-19 testing is integrated with other services. For the health system, the integration of services can contribute to improvements in service delivery efficiency by reducing the number of clinic visits required to deliver both services. Lastly, the sustainability of COVID-19 testing services is more likely to continue post donor funding because the service is integrated into an existing platform.

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Photos: Charity Mureithi and Koffi Goga, 2022

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