**Enhancing Healthcare Access and Efficiency through Sustainable Public-Private Partnerships**

| County: | Tharaka Nithi | | |
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| Sector/s: | Health | Sub-sector/Theme: | Laboratory |
| Keywords: (for search in the online platform) | Laboratory Information Management System (LIMS)<br>Private-public partnership<br>Digitization of the Laboratory Department | | |
| Target Audience: | Counties | | |
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## Introduction

Quality laboratory services in County health facilities form part of the health system continuum. This component of healthcare requires intentional investment with the goal of guaranteeing patients' accessibility and availability of the said services. Where laboratory services are offered at the highest standards, patients do not need to travel to other Counties and countries to access the services thereby reducing stress and expenses and enabling early disease detection and treatment for better health outcomes.

Tharaka Nithi County, formerly part of the Eastern Province, spans an area of 2,609 km² and has a population of 393,177. The County Health team realized that patients often leave the County for laboratory services, including cancer screening, seeking these outside Kenya or in Nairobi. Chuka County Referral Hospital faced challenges of congestion and staffing shortages in the laboratory department. Amid the COVID-19 pandemic, the hospital operated with only 16 staff members. The high workload and congestion led to all available clinical officers contracting COVID-19. The pharmacies faced challenges such as stock shortages, lengthy queues and manual registration processes.

To address these challenges, the Tharaka Nithi County Government opted to digitize laboratory systems with a software called Attune (provided by Metropolis), integrating ticketing with generation of lab test results. This streamlined the process for patients, allowing them to transition seamlessly from ticketing to testing and access their results digitally without delays. Additionally, this initiative enabled the County to eliminate loopholes that had previously resulted in unpaid tests. The County has also incorporated Geospatial Information Systems (GIS) into its health systems, mapping all households to identify disease prevalence by location, enabling timely and effective interventions.



*Chuka County Referral Hospital*

**Implementation of the practice**

- In 2021, the Tharaka Nithi County Government partnered with the Clinton Health Access Initiative (CHAI) in a public-private partnership. This collaboration aimed to develop guidelines for public-private partnerships and help in inviting private companies to bid for provision of laboratory services in the County.
- In the same year, CHAI facilitated the County's visit to Nairobi to inspect the laboratories that had submitted bids.
- In 2022, following thorough inspections of various companies, Metropolis, an international organization, was selected among other labs. This was due to its favorable terms, which included comprehensive service provision such as collecting lab samples from villages across the County. This approach eliminated the need for people to travel to hospitals; instead, samples were collected at their homes and transferred to Chuka Referral Hospital for testing. Test results were then made accessible online, along with medical recommendations, facilitating purchases at local pharmacies.
- In 2023, Metropolis sponsored four (4) staff members from the laboratory department at Chuka Referral Hospital to attend a three-week training session at their main office in Nairobi. Additionally, Metropolis supported the County by deploying two (2) officers, joining the previously trained four (4), to form a team of six (6) equipped with advanced lab skills. This team conducted training sessions for other County staff on the operation of modern laboratory equipment.
- In the same year, the County, in collaboration with Metropolis, renovated the existing laboratory spaces and equipped the facility with state-of-the-art equipment. The Laboratory Information Management System (LIMS) was also implemented, and Chuka Referral Hospital received global accreditation

*Some of the test machines at the laboratory in Chuka County Referral Hospital*

- Through this partnership Metropolis would gain operational insights into the devolved healthcare system thereby enhancing their portfolio and leveraging on such knowledge to pilot a similar initiative in other Counties.

- The laboratory is currently fully supported by the County Government of Tharaka Nithi and has been included in the County Integrated Development Plan (CIDP) as part of its health agenda.

## Results of the practice
- Chuka Referral Hospital achieved global accreditation on the laboratory services offered, ensuring quality standards.
- Installation of the Laboratory Information Management System (LIMS) improved data management.

- Training programs offered by Metropolis improved staff capabilities in modern laboratory operations.
- Digitized laboratory systems streamlined ticketing and test result access for patients.
- Improved laboratory interactions and completed tests moved from 1000 to 4000 in a day.
- Improved revenue collection from Ksh 700,00 in April 2024 to Ksh 3.7M in the month of May 2024.

## Lessons learnt:

- Collaborating with organizations like Metropolis enabled access to advanced technology and expertise, thereby enhancing service delivery.
- Implementing digital systems such as the Laboratory Information Management System (LIMS) and GIS streamlines operations, leading to better resource management and quicker patient service.
- Investing in staff training not only improved technical skills but also empowered local healthcare professionals to lead and sustain improvements in lab services.
- Using GIS for disease mapping and involving communities in healthcare decisions improved health outcomes by targeting interventions effectively.
- Achieving global accreditation at Chuka Referral Hospital underscored commitment to quality and boosted public trust in healthcare services.

## Conclusion

Tharaka Nithi laboratory initiative exemplifies the transformative power of strategic partnerships, technological innovation, and community engagement in healthcare. By leveraging collaborations with organizations like Metropolis, implementing digital solutions, and prioritizing staff training, the initiative not only enhanced laboratory services but also improved healthcare delivery and patient outcomes. Achieving global accreditation further solidified the commitment to quality and sustainability.