

For the record

The Laboratory Networking Project

Kumasi

C/Can is supporting stakeholders in Ghana's second city to develop and manage a Laboratory Networking Project focused on digital infrastructure development, capacity building and quality improvement of pathology diagnosis.

The context

Until now, a long-standing obstacle to timely and accurate cancer diagnosis in Kumasi has been the absence of overarching standards and practices. With each of the city's 22 private and public pathology laboratories effectively functioning as stand-alone entities, they apply varying standards and processes. What's more, some are heavily saturated, while others are underutilised. As a result, turnaround time varies, while tests are often of untrusted quality.

The objective

The objective of the project is to strengthen workflow and workload distribution via the creation of a Laboratory Network to improve quality and reduce turnaround times.

The response

Between December 2021 and March 2022, C/Can, in conjunction with the local multi-stakeholder working group, led a city-wide feasibility study of Kumasi's laboratories that included extensive interviews to gather information on their organisation, laboratory characteristics (public vs private, reference lab, etc.), services, number of employees, daily patient footfall, funding, accreditation, LIMS, and IT systems.

The resulting key issues and areas of interest from the interviews were identified and informed the development of the target operating model of the network as well as the requirements for an appropriate IT service partner for the laboratory network.

After a lengthy and fully transparent call to pitch process to provide an interconnected IT solution that began in February 2022, two companies, Penless and Sidrid, have been chosen as a consortium to pilot the network.

What we did

The target operating model is built on insights from the interviews with Kumasi's laboratories, as well as from external benchmarking that covered best practices around the world. The project is guided by the aim of long-term financial sustainability and will initially be decentralised. Standardisation of processes will first aim at public rather than private laboratories in the short- to mid-term, given the operational differences between public and private laboratories.

Key processes were detailed, including sample management, test referral management, inventory management, billing management, data warehouse, instrument management, knowledge management, and data/ information sharing.

The relevant software applications and associated technology architecture have been outlined, including tools and equipment to enable timely analysis and result management, while key activities and sub-activities have been formalised so as to provide a tangible roadmap for city stakeholders to use in the future.

The lessons

The success of this project lays with the application of C/Can's core principle of engaging with local stakeholder engagement in the form of a Technical Working Group from the initial stages, expanding this participation and empowering it to continue delivery into the future. Throughout the project, as well as for the future success of the network, early and broad stakeholder engagement has been key, and will need to be driven by an empowered Technical Working Group. Key stakeholders include Ghana Health Services/ MOH, CHAI, and others, who should be continuously involved while the network is advancing.

Going forward, considering the future broader Technical Working Group, including further local laboratories and the new IT partners, building trustful relationships among empowered partners will be key.

Although C/Can recognises that the pragmatic approach of choosing a decentralised network without a new coordination centre might take more time, it has set its partners on a sustainable/long-term path towards a fully aligned and operating network.

Next Steps

The targeted outputs for the project are to develop a connected IT infrastructure for member laboratories, establish a structured referral system for patients and samples, develop and deploy a capacity-building plan aimed at upgrading lab tiering, and pilot innovative solutions identified through the co-creation sprint for pathology quality improvement.

The focus in the second quarter of 2022 will be on creating a strong governance structure to take the implementation forward. This will see the formation a local governance body including the MoH and the Ghana Health Service Representation to independently drive the implementation, development and growth of the Laboratory Network.

At the same time, an international advisory taskforce will be established that will evolve based on the needs of the network. The advisory taskforce will support the network with strategic decision making, operational expertise, and will look at setting up the network sustainably over time. The advisory taskforce will be multi-stakeholder, including technical and private sector representation.

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