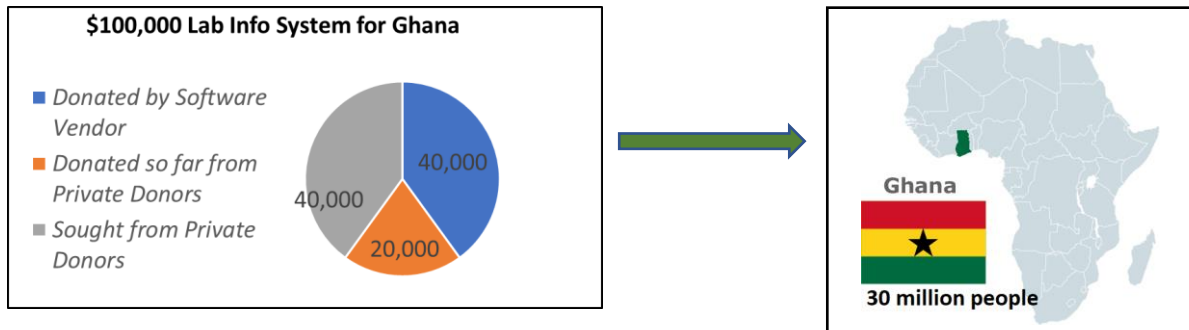


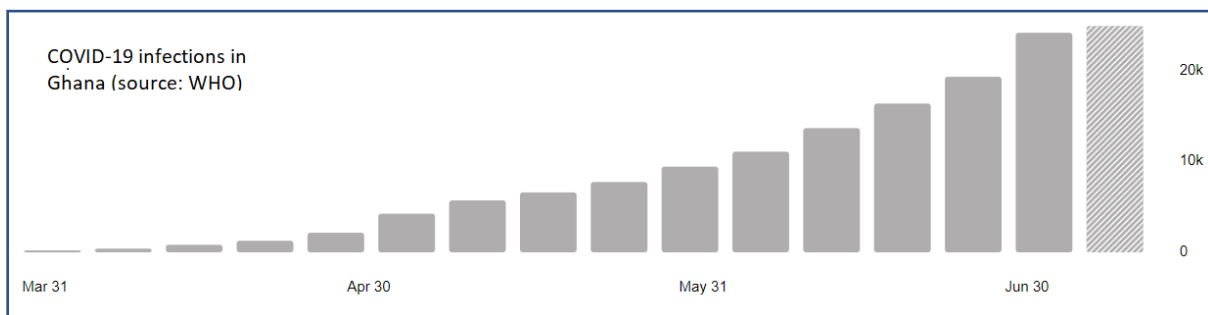
The Healthcare Federation of Ghana (HFG) is fund-raising for the procurement and installation of a **Lab Information Management System (LIS)** for the national testing labs in Ghana in order to **expand COVID-19 Testing Capacity in Ghana** which is critically needed to cope with the pandemic.

The LIS, with a **total cost of US\$100,000** will have a **major multiplier effect** by building **sustainable capacity** to manage the COVID-19 pandemic on behalf of the **30 million people** of Ghana.



THE COVID-19 CHALLENGE IN GHANA

Ghana has 41,000 confirmed infections as at end-July, the 3rd highest number of recorded infections in Africa, and the number is more than doubling each month.



- With the lessons learned from the Ebola pandemic, Ghana implemented a strict lockdown in March which was initially effective to limit the spread of infection.
- To enable the economy and education system to start recovering, Ghana began a phased easing of the lockdown on June 1. Despite strict adherence to rules on social distancing and face-masks, there has been a sharp increase in the infection rate as workplaces and schools have re-opened.

Strategy: The Ghana Health Service (GHS) has designated **Tracing, Testing, and Treatment** as the pillars of the management of the COVID-19 epidemic. <https://ghanahealthservice.org/>.

- Since March, Ghana has performed over 400,000 tests, one of the higher testing rates per capita in Africa, including over 260,000 tests from an extensive Contact Tracing programme.

Challenge: There is **limited Testing Capacity** (8,000 tests per day for a population of approx. 30 million).

- With the rapid rise in infections, there have been backlogs, delays in testing, and lost samples.
- A critical limitation is that logging of samples, tests results and archiving are done manually, leading to delays in processing and preventing data from being managed effectively.
- This limits Ghana Health Services in preventing transmission and responding rapidly to outbreaks.

Solution: Install a **Laboratory Information System (LIS)** - an automated, integrated system for registering patient data, tracking and reporting test samples, releasing results, and archiving data.

- The LIS creates traceability, efficiency, confidentiality, auditing, archiving and data exchange.
- **The LIS will quickly enable a substantial increase in national testing capacity.**

THE SELECTED LIS IS A RELIABLE AND COST-EFFECTIVE SYSTEM

- *System:* The selected LIS system is ‘Schuylab’ from Schuyler House, California, USA <http://www.schuylerhouse.com/>
- *Vendor:* Schuyler House serves over 1,000 labs worldwide, with experience in US, Canada, the Caribbean, Ghana, and East Asia. The system has been in use at Synlab Ghana Ltd (formerly Medlab Ghana Ltd) since 2011.
- *Price:* Based on independent evaluation, Schuylab is more cost-effective than the other leading LIS systems because it is a modular system. As a donation, Schuyler House has agreed to fund 40% of the installation cost, and to provide free maintenance for Year 1.

HOW THE LIS PROJECT WILL INCREASE TESTING CAPACITY

- Registration with bar codes limits errors at the pre-analytic phase and increases efficiency.
- Lab instruments are connected directly online to the computer system, so they scan the sample barcode, and know what test to perform so that transcription error is reduced to virtually zero.
- Patient records are maintained in a permanent, confidential computer file, allowing auditing of results
- Archiving and export of results is done automatically, allowing analysis by epidemiologists at GHS.
- Quality Control can be monitored automatically.

THE PHASED IMPLEMENTATION OF THE PROJECT WILL ENABLE QUICK RESULTS

- **Phase 1 (Q3-20)** is to install the LIS in the Virology Department at the largest testing centre, **Noguchi Memorial Institute for Medical Research** at the University of Ghana, (‘Noguchi’), which performs 4,300 tests/day, over half of the overall COVID-19 testing in Ghana. <https://www.noguchimedres.org/index.php/2018-01-23-05-00-38/virology-department>
- **Phase 2 (Q4-20)** is to install the LIS at the **National Public Health and Reference Laboratory**, Accra (‘NPHRL’), the **Kumasi Centre for Collaborative Research in Tropical Medicine** (‘KCCR’), and the 5 other public Labs. This will create a network with nationwide coverage and effective sharing of data.

<i>PROJECT COST (US\$)</i>	PHASE I - Noguchi Testing Centre Q3-2020	PHASE 2 - network of national labs Q4-2020	TOTAL	Status
Funded by Software Vendor	25,000	15,000	40,000	<i>Committed</i>
Contributed by Private Donors	20,000	-	20,000	<i>Committed</i>
Remaining to fund	15,000	25,000	40,000	<i>Sought</i>
TOTAL	60,000	40,000	100,000	

THE PROJECT MANAGEMENT TEAM IS IN PLACE - ENABLING RAPID INSTALLATION AND OPERATION

- *The Project Advisor in Ghana* is Dr Rosemary Keatley, who was CEO of Medlab Ghana (now Synlab Ghana), for 10 years. She oversaw the successful installation of Schuylab at Medlab Ghana.
- *Operation of the LIS in Phase 1* will be handled by the Virology Lab team at Noguchi who have the necessary qualified technical personnel and an experienced Laboratory Manager. *For Phase 2*, the Noguchi team will be able to provide training on the LIS to the staff in the other 7 Labs.
- *Installation of the LIS* will be handled by Schuyler House staff working remotely, with local technical support.
- *Hardware required for the system is minimal:* a dedicated server to be provided by each Lab; and bar-code printers and port adapters to be shipped from Schuyler House (the hardware and freight are included in the project cost).

HOW TO DONATE**Contact persons**

-Donations Mark Keatley (mkeatley@RidgemarkAdvisors.onmicrosoft.com)

-Project management Dr Rosemary Keatley (rakeatley@gmail.com)

Trustees Medlab Services Ghana Ltd

Disbursement By August 31.

Bank Ecobank Ghana Limited
2 Morocco Lane, Off Independence Avenue
Ministerial Area – Accra
SWIFT: ECOCGHAC
Sort Code: 130101

Bank account: Medlab Services Ghana – COVID19FUND

Bank account numbers

USD offshore: 2441002198932 (for USD donations outside Ghana)

USD onshore: 3441002202241 (for USD donations in Ghana)

GHS: 1441002314271 (for Ghana Cedi donations)

Correspondent Bank: Citibank N.A
New York
339 Park Avenue
New York, NY 10022
SWIFT: CITIUS33