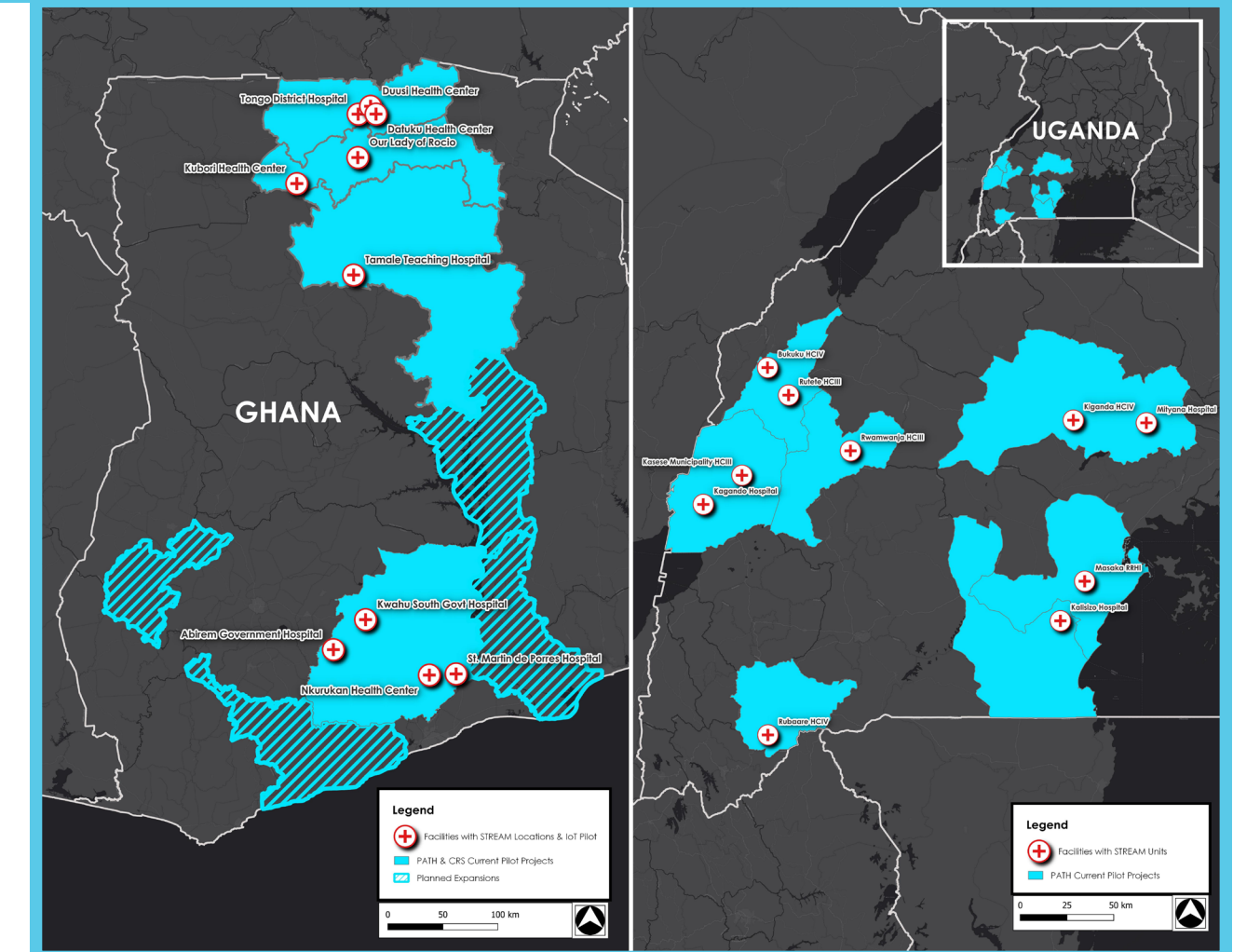


Operations Research in Ghana & Uganda

Overview:

- Partnership with PATH and the Ministries of Health in Ghana and Uganda.
- PATH role as interlocutor between Aqua Research Inc. and national/regional Ministries of Health, district health management teams, regulatory and standards authorities and health infrastructure/biomedical engineers and users (healthcare facility staff).
- PATH facilitated the design and management of operations research to assess the acceptability of on-site chlorine generation in public healthcare facilities, performance of the STREAM and cost savings.
- 24 STREAM devices evaluated in 18 healthcare facilities across both countries.
- PATH and Ministries of Health conducted a comparative cost analysis of commercial chlorine procured by healthcare facilities with the cost of generating STREAM chlorine modeled over five years (minimum device lifetime).



Results:

USER-INFORMED REDESIGNED COMPONENTS

Collected feedback from district health officers, hospital administrators, and STREAM users on design and usability factors that have been incorporated in the latest designs.

HEALTH SERVICE INTEGRATION

Generated operational guidance and integrated the STREAM into refresher trainings and IPC management and supervision. Transitioned maintenance responsibilities to regional biomedical engineers (Eastern Region, Ghana).

CHLORINE STOCK OUTS ELIMINATED

Demonstrated how the STREAM eliminated chlorine stockouts in the 18 HCFs, which previously faced an average of 45 – 74 days per year without chlorine.

SIGNIFICANT COST SAVINGS GENERATED

The comparative cost analysis found that on average the STREAM generates a cost savings of 29% to 32% per liter modeled over five years (minimum device lifetime). The greatest cost savings occur in District Hospitals, saving from 70% to 120%, where there is a higher demand for chlorine and better economies of scale.

GOVERNMENT ADOPTION

Clarity of regulatory requirements and approval process in Ghana and Uganda from working with the Health Policy Advisory Committee and National Drug Authority in Uganda, and Ghana Health Services, National Standards Authority and Food and Drug Administration in Ghana.