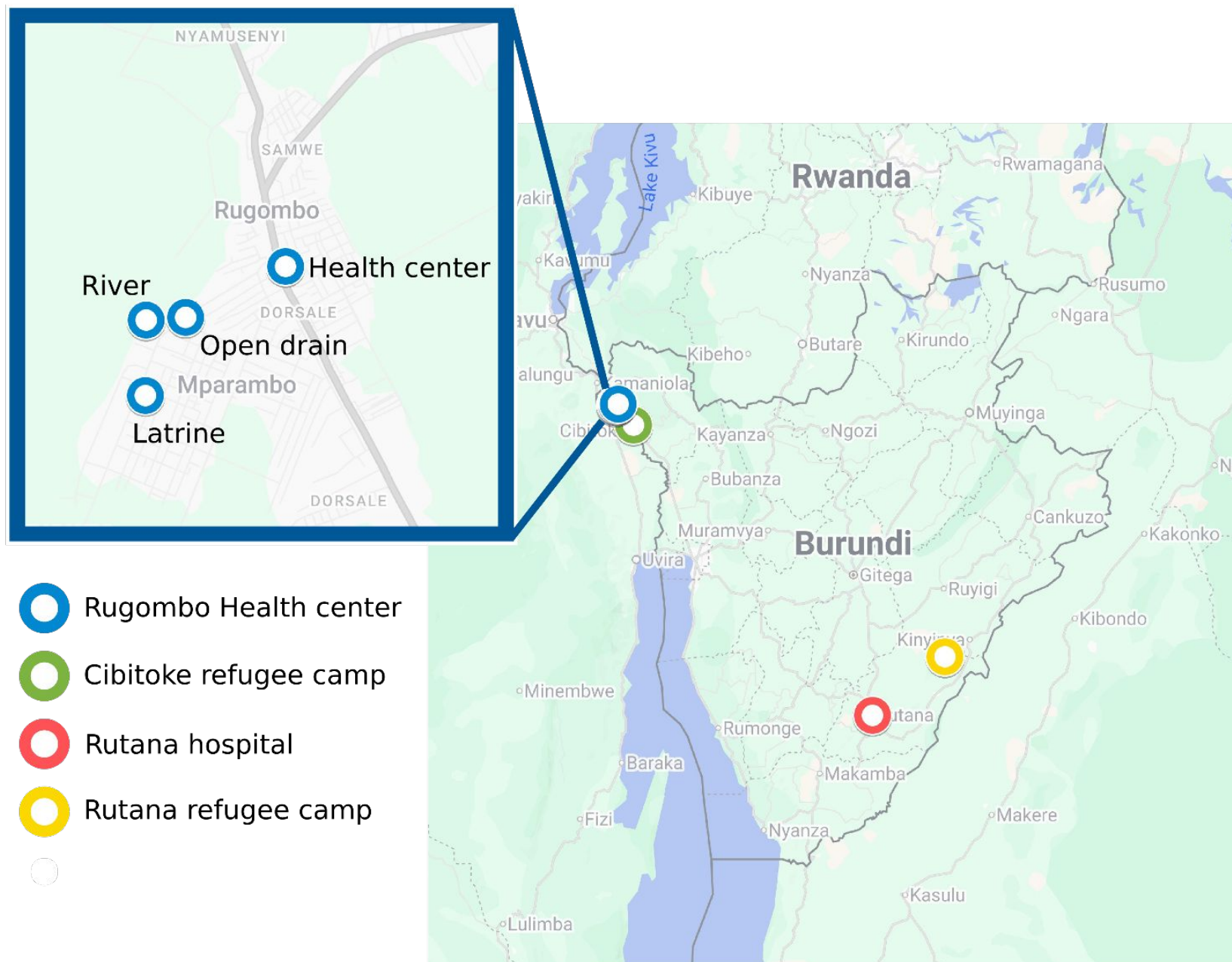


On-site pathogen and AMR detection using mobile ONT metagenomics sequencing of gastrointestinal infections in refugee and hospital settings in Burundi

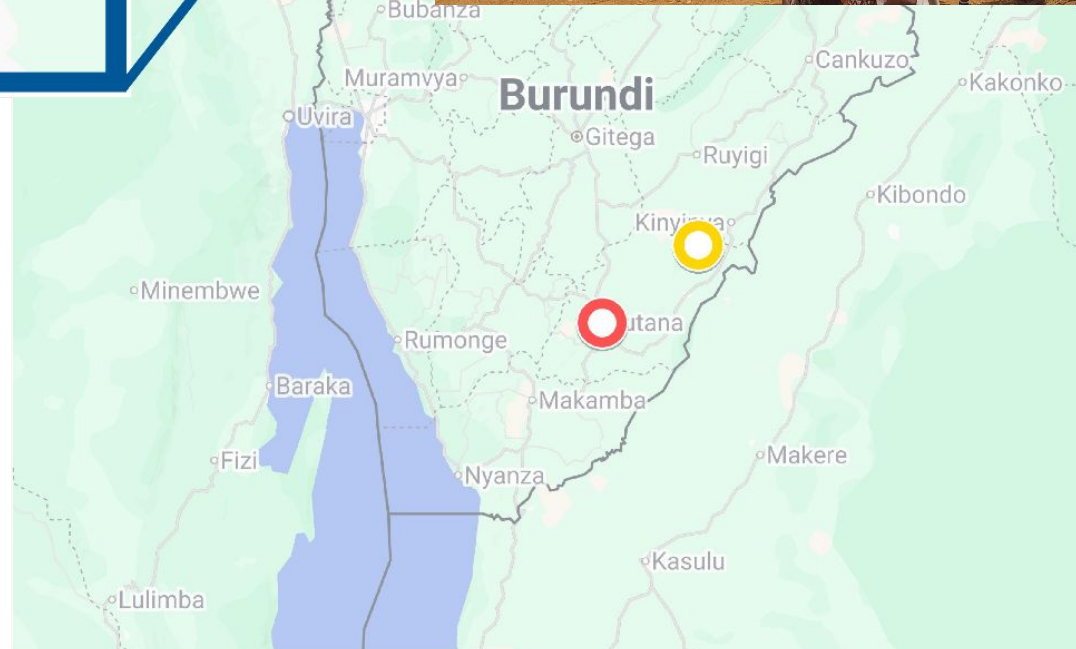
Emilie E. B. Jensen & Saria Otani

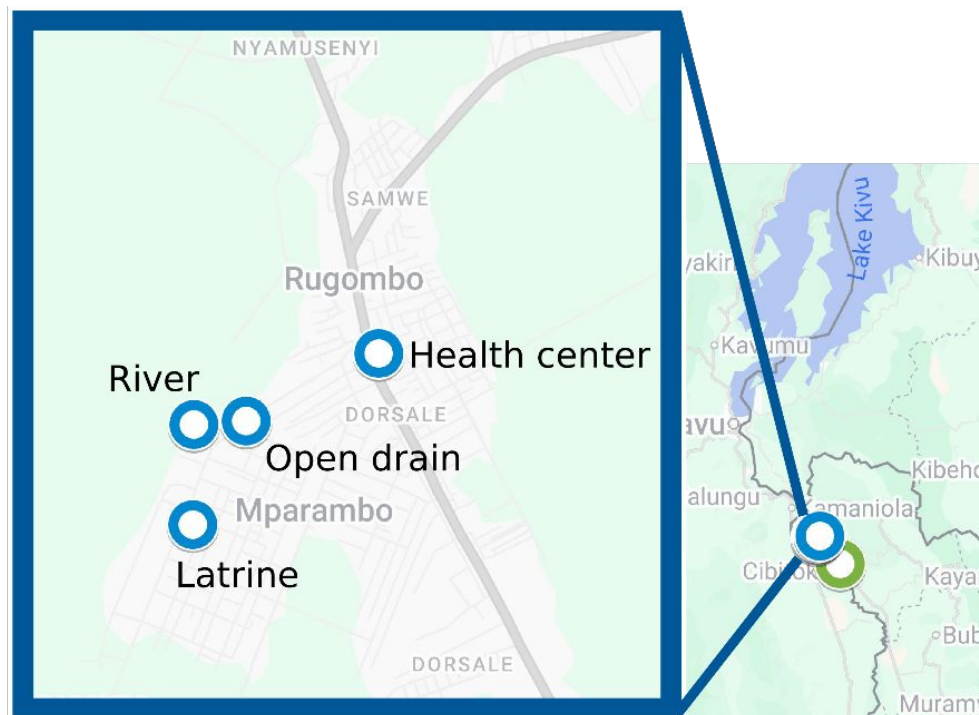






-  Rugombo Health center
-  Cibitoke refugee camp
-  Rutana hospital
-  Rutana refugee camp
- 





-  Rugombo Health center
-  Cibitoke refugee camp
-  Rutana hospital
-  Rutana refugee camp
- 

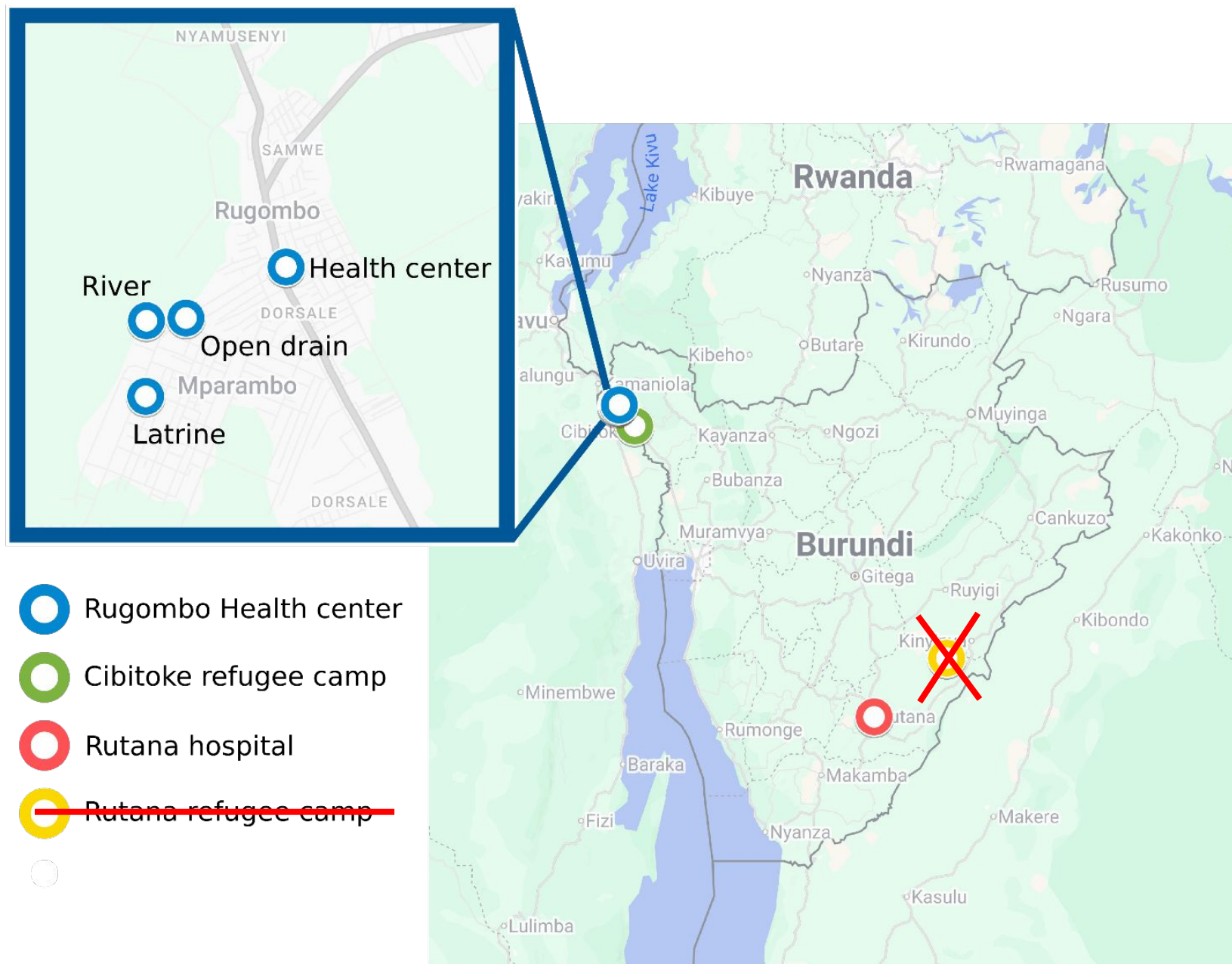




- Rugo
- Cibito
- Rutar
- Rutar
-







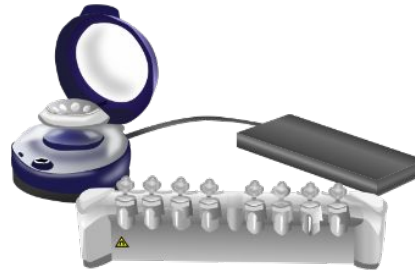
Can we detect the GI infectious agent on site?



I Sampling



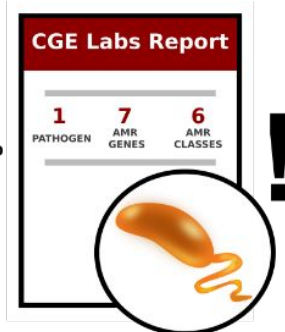
II DNA extraction



III Library prep



IV Sequencing



V Pathogen identification



I Sampling



II DNA extraction

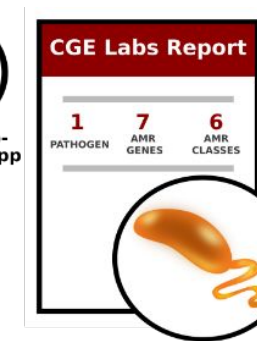


III Library prep

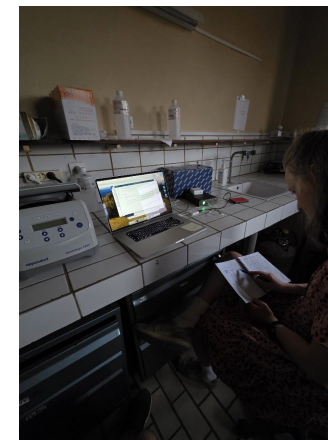


IV Sequencing

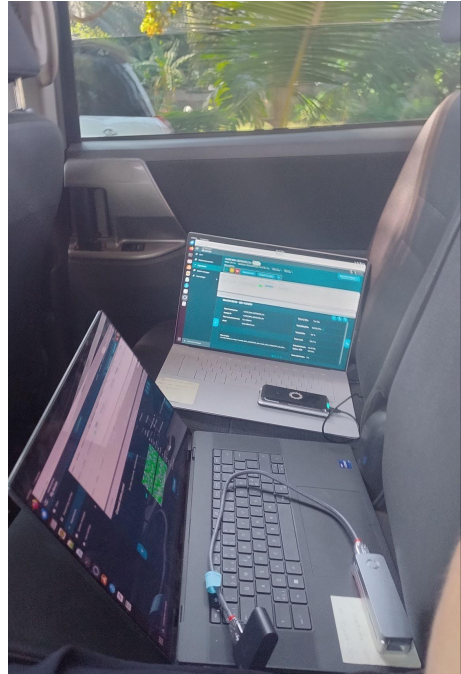
5 min
with laptop-based tool app



V Pathogen identification



No internet!
No electricity!



It is a transit camp for refugees from DRC. Refugees don't stay there for long.

Samples from individuals with stomach issues (not visible), and individuals without symptoms.





Front line diagnostics

Cibitoke refugee camp (Cishemere)

Front line diagnostics

Command line



Rutana hospital

8 faecal samples from visually symptomatic individuals.



Rutana hospital

Front line diagnostics

Rutana hospital

Command line

Front line diagnostics

Rugombo health centre



Faecal samples from individuals
either diagnosed or with severe
symptoms of GI.
And their household companion.

And 3 environmental samples
with suspected GI pathogens



Companions
Patient mothers

Patients

Environmental

Open drain
Latrine
River

Companion and patient comparison

We also did a lot of training!



We also saw

