

CAGE-TB

Automated smartphone-based cough audio classification for rapid tuberculosis triage testing (cough audio triage for tb)



The CAGE-TB app aims to modify TB diagnosis by using algorithms to differentiate between TB and non-TB coughs, identifying TB susceptible individuals and prioritizing them for additional sputum testing.

The research process was conducted in two phases:

- Discovery phase- Data collected through advanced machine learning methods tailored for TB patient cough audio analyses, including a Cape Town cohort, were used to refine a cough audio signal specific to TB.
- The validation phase will employ the optimized TB audio signature from the discovery cohort to validate the technology in a broader population.



A typical CAGE-TB data collection set-up.

For more information:

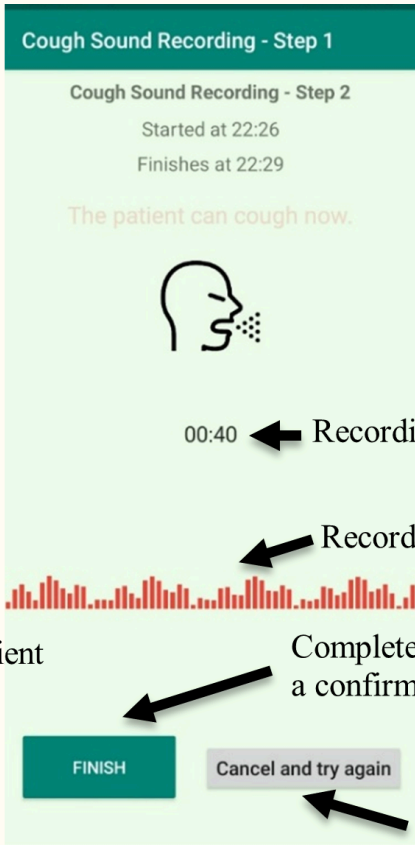
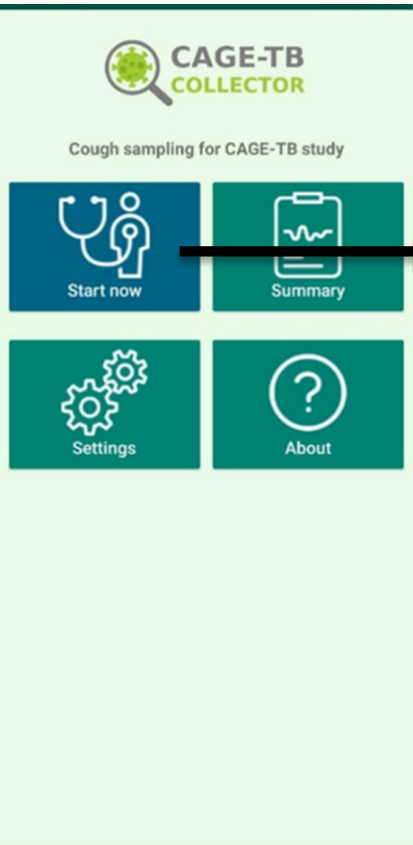


Figure 1: Cage-TB app. Initial screen of the app presents four options. Tapping ‘start now’ directs users to a second screen, where they can input the patients’ ID for a new record. A red recording indicator signifies whether a recording is in progress.

The mobile health screening tool would allow for efficient testing, earlier TB detection, and reducing transmission.



For more information on AI and robotics in healthcare:

