Artificial Intelligence (AI) for TB

MEDECINS SANS FRONTIERES
TRANSFORMATIONAL INVESTMENT CAPACITY

Project Summary

Problem

Tuberculosis is a major source of morbidity and mortality in the world, as one of the top 10 causes of death worldwide and the leading cause of death from a single infectious agent. The underdiagnosis of TB highlights the need for improved TB detection in the population.

Proposed Solution

Address the gap in MSF's ability to diagnose TB by determining the feasibility and usability of chest X-ray with Computer Aided Detection (CAD) in TB screening and triage and evaluating its impact in MSF contexts. This uses AI technology and training to support MSF clinicians in analyzing medical images and detecting radiographic abnormalities.

Potential Impact

- Improves the quality of care for MSF patients
- Improves the use of Chest X-ray in TB screening and triage.
- Provides cost-savings in reduced referrals for expensive testing (GeneXpert)

Viability

- Project team, integrated into the Diagnostic Working Group
- Extensive stakeholder alignment
- Budget focused on field staff with some technology costs

Risk Mitigation

- AI use for TB imaging diagnosis has been validated, is well established and supported by WHO standards
- The team has engaged the missions to facilitate embedding the technology and training for the two pilots

Scalability

- Broad stakeholder management will facilitate buy-in and change management
- Project success would enable chest X-ray with CAD to potentially be (1) scaled across MSF and (2) extended to diagnosis of other contexts or diseases

Area/Type: Medical R&D; Incubator
Sponsor/Support: OCP
Length/Project Status: 2 years; **ONGOING**