

## About the Organization

- The William J. Clinton Foundation (WJCF), a Section 8 not-for-profit under the Indian Companies Act 2013, is dedicated to saving lives by reducing disease burdens and strengthening government-led health systems.
- WJCF provides technical and operational support to the Ministry of Health & Family Welfare and state health departments across 16 states addressing diseases like TB, HIV/AIDS, hepatitis, and non-communicable conditions such as diabetes and cervical cancer, alongside initiatives like Ayushman Bharat and climate health programs

## Problem Statement (use case specific)

- ***HIGH DISEASE BURDEN:*** India has **26% of global TB cases** in 2023 (WHO Global TB Report 2024)
- ***SYMPTOM SCREENING IS BROKEN:*** **42.6%** of TB confirmations would have been missed without Chest X-ray (National TB Survey 2019-21)
- ***LIMITED AVAILABILITY OF RADIOLOGISTS:*** **~20,500 Radiologists for 1.4B people** → ~15 per million; (IRIA records, 2024)
- ***POOR CARE SEEKING:*** **63%** of people with chest symptoms did not seek care (NATBPS 2019–21)

## AI Solution Description

- WJCF **deployed AI-enabled ultraportable chest X-ray (CXR) devices across 33 districts in 11 states**, enabling large-scale community-based screening of high-risk and vulnerable populations through the innovative “Express Health Camp” model.
- **Enabled instant AI-driven interpretation of CXR images**, significantly improving early detection of presumptive TB cases often missed through traditional symptom-based screening alone.
- **Built an offline-first Radiological Information System (RIS)** to seamlessly capture beneficiary data, integrate AI outputs, and ensure reliable field deployment even in low-connectivity settings.

## Tools and techniques Used

- RIS is the principal tool that is developed to manage beneficiary data, CXR images, and integrate AI algorithms that works offline, mitigating any network-related issues
- RIS is designed as a modular system with role-based access to different users enabling smooth data recording and reporting.

## Key Features of tech solution

- Instant AI interpretation of CXR image and triage of TB presumptive beneficiaries at camp without any need for internet
- Vendor agnostic design – allowing quick integration with any hardware and AI model for CXR interpretation
- Dashboards and Reports for effective data driven decision making

## Impact (Qualitative and Quantitative)

SCALE OF SOLUTION – Currently, RIS is deployed in **72 machines across the country**

### BENEFICIARIES IMPACTED:

- **Number of Express Health Camps conducted:** 15,586
- **Beneficiaries Screened via X-ray:** 12,12,932
- **Total TB Confirmations:** 9,804
- **Asymptomatic TB Confirmations:** 32% of total confirmation

### EFFICIENCY IN TB CASE DETECTION:

- The Number Needed to Screen (NNS) for one TB confirmation is **127** compared to 4,971 highlighted by Shewade et al.'s (2025) national ACF study for Jan-Sep 2023 cycle, a **97% efficiency gain in ACF yield**
- *Before RIS – Time to screen beneficiary: 8-10 mins*  
*With RIS – Time to screen beneficiary: <3 mins → Leading to 62% reduction in cost of screening per beneficiary*

## Plan for roll-out and sustainability

- The **National TB Elimination Program (NTEP)** is in the process of procuring over **2,000 ultraportable X-ray devices** to strengthen ACF activities across the country.
- Expanding the RIS deployment to **100 devices (an additional 28 units)** will help ensure operational and financial sustainability, as the RIS has been built as a scalable, modular system requiring minimal incremental cost for each new installation.
- The platform has also been designed for long-term adoption by state and national TB programs, ensuring sustainability through integration into routine government-led screening operations.

## Additional documents

- *Presentation provided earlier*
- [\*Solution Demo Videos:\*](#)
- [\*User Testimonials\*](#)