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International Union Against Tuberculosis and Lung Disease

JANUARY 2026

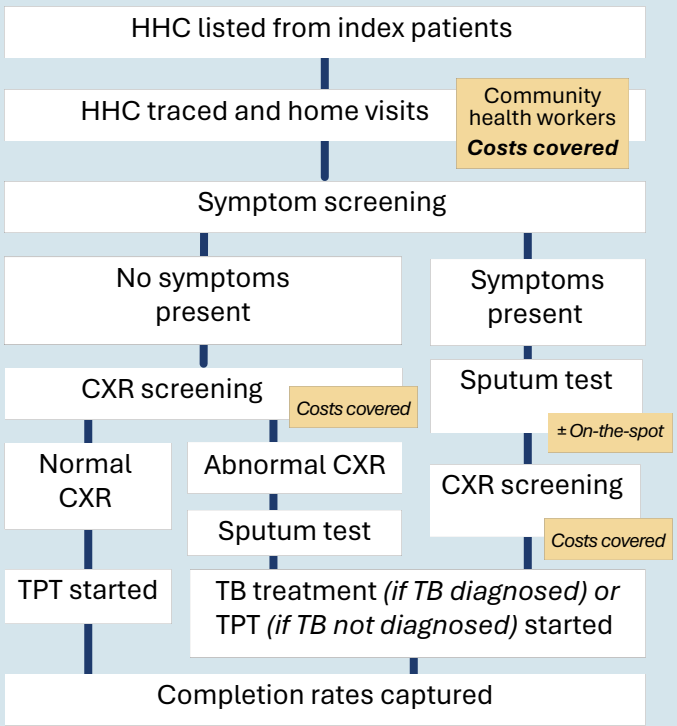
Optimising household TB contact management in Uganda and Zimbabwe

Lessons from operational research

National guidelines for TB contact management have existed for decades but they have been implemented slowly. In 2024, while 3.5 million household contacts of people diagnosed with tuberculosis (TB) were initiated globally on TB preventive treatment (TPT), this was estimated to be only 25% of all contacts eligible for this treatment[1].

In 2023-2024, the National TB Programmes in Uganda and Zimbabwe and The Union conducted an implementation research project in six health facilities in each country to optimise household TB contact management through a comprehensive package of services.

Algorithm of household contact management



The services included home visits to index patients' households, screening of all household contacts (HHC) for TB symptoms, sputum collection on-the-spot from those found symptomatic and offer of rapid HIV testing. All HHC - symptomatic or not - were referred for a free chest X-ray (CXR) with a transport cost reimbursement. Contacts found to have TB were initiated on TB treatment. Those without TB and who were eligible, were offered TPT. Short-course TPT regimens (1HP, 3HP) were available to improve adherence and treatment completion. Programme registers were used to capture relevant data.

HHC were evaluated according to the guidelines of each country. In Uganda, only HHC of index patients with bacteriologically confirmed TB were included, whereas in Zimbabwe, HHC of index patients with both bacteriologically confirmed and clinically diagnosed TB were considered.

No TB infection testing was carried out in either country.

The algorithm of HHC management is described on the left; findings from each country, including TB yield and TPT uptake, are reported below.

[1]Global tuberculosis report 2025. Geneva: World Health Organization; 2025. Licence: CC BY-NC-SA 3.0 IGO.

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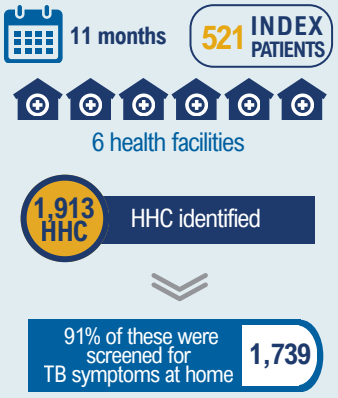
FINDINGS FROM UGANDA

From November 2023 to September 2024, a total of 521 index patients with bacteriologically confirmed pulmonary TB were registered at six health facilities in Uganda.

Home visits to index patients identified 1,913 HHC, 1,739 (91%) of whom underwent TB symptom screening at home.

HHC IDENTIFICATION AND SCREENING



HHC REPORTING TB SYMPTOMS

321/1,739 (18%) reported TB symptoms.

309 of these 321 were further evaluated:

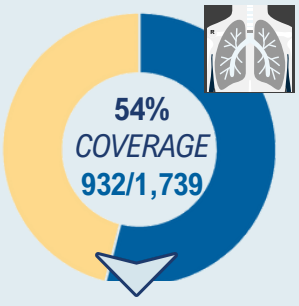
- 284 (92%) provided a sputum specimen for testing and *M. tb* was detected in 19 (7%) specimens
- 214 (69%) had a CXR

A total of 932/1,739 (54%) HHC underwent CXR screening:

- 718 asymptomatic HHC
- 214 symptomatic HHC

68/932 (7.3%) had a CXR suggestive of TB.

CHEST X-RAY



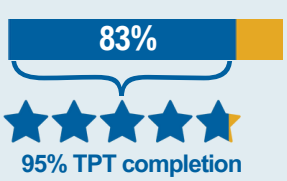
TOTAL TB YIELD 4.6%

Overall, 80 HHC (4.6%) were found to have TB disease:

- CXR contributed to the diagnosis of 61 TB cases - this is 75% of HHC who received a TB diagnosis, and who would have been missed had CXR not been done
- 21 TB cases were bacteriologically confirmed (2 in the asymptomatic and 19 in symptomatic HHC)

Of the 1,496 HHC eligible for TPT, 1,239 (83%) initiated TPT and 1,178 (95%) completed it.

TPT OUTCOMES

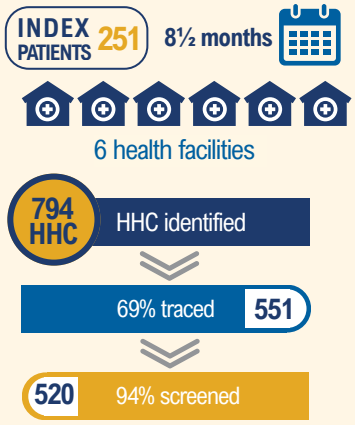


FINDINGS FROM ZIMBABWE

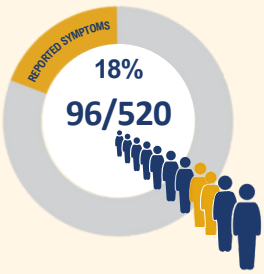
From November 2023 to July 2024, a total of 251 index patients with TB disease (all forms) were registered at six health facilities in Zimbabwe.

794 HHC were listed. 520 (94%) of the 551 traced HHC were screened.

HHC IDENTIFICATION AND SCREENING



HHC REPORTING TB SYMPTOMS



96/520 (18%) reported TB symptoms.

85 of these 96 reached the health facility for further evaluation:

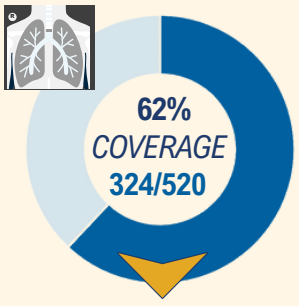
- 59 (55%) provided a sputum specimen for testing
  - 54 from HHC with symptoms
  - 5 from asymptomatic HHC with a CXR suggestive of TB
- 79 (93%) had a CXR

A total of 324/520 (62%) HHC underwent CXR screening:

- 245 asymptomatic HHC
- 79 symptomatic HHC

18/324 (5.6%) had a CXR suggestive of TB.

CHEST X-RAY



TOTAL TB YIELD 2.3%

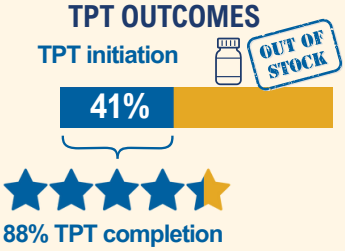
Overall, 12 HHC (2.3%) were found to have TB disease:

- All cases were clinically diagnosed
- *M. tb* was not detected in any sputum specimens
- CXR detected 8/12 HHC with TB who had not reported symptoms

Of the 311 HHC eligible for TPT, 126 (41%) started TPT* and 111 (88%) completed it.

**This initiation rate is likely due to shortage of TPT medicines during implementation.*

TPT OUTCOMES



***HHC** - household contact*

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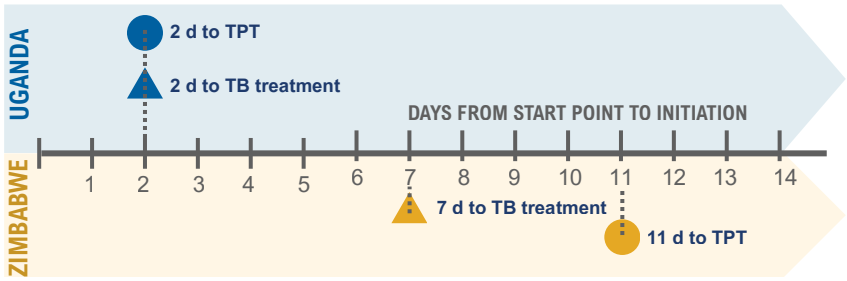
TIMELINES FOR TPT AND TB TREATMENT INITIATION IN CONTACTS



Start point harmonised: Uganda = index registration; Zimbabwe = index diagnosis/listing (median diagnosis→ listing 0 [IQR 0–0], 98% ≤7 days).

LESSONS LEARNED AND RECOMMENDATIONS

1. Approach to household contact management:
- Include a home visit in HHC management.
- Where feasible, collect on-the-spot sputum samples during the visit to increase TB detection.

2. Offer CXR to all household contacts:
- CXR is recommended for all contacts, regardless of symptoms.
- Use of CXR will result in finding more HHC with TB disease and reduce the risk of initiating TPT among those with TB disease.

3. System enablers:
- Ensure CXR availability, including an uninterrupted energy source (e.g., generators or solar batteries).
- Remove financial barriers to CXR access: provide it free-of-charge and reimburse transport costs.
- Equip healthcare and community workers in contact management through training, supportive supervision, stipends. This is necessary as the workload will increase when contact management to HHC is expanded to all ages (not only under 5-year-olds or people living with HIV).

4. Ensure stocks of TB and TPT medicines:
- Ensure timely ordering of medicines and other consumables, including buffer stocks, to ensure uninterrupted availability of TB and TPT medicines.
- Ensure availability of child-friendly formulations (< 5-year-old HHC) and shorter TPT regimens.

5. Consider expansion:
- Consider extending contact management to HHC of index patients with clinically diagnosed pulmonary TB to reduce ongoing transmission.

CONCLUSION

The services provided led to enhanced TB detection and TPT uptake and completion among HHC.
The key services were:
- Proactive outreach by healthcare and community workers
- On-the-spot sputum collection
- Routine CXR
- Initiation of TB treatment if TB disease identified or short-course TPT if eligible

Scaling up these elements within programmatic services - supported by adequate resources and robust, data-driven support supervision - can help countries accelerate progress toward the global End TB targets.

WANT TO LEARN MORE?

Click on the links below or scan the QR codes

- Case finding among and comprehensive management of household contacts of persons with pulmonary tuberculosis: a pilot project - Uganda
- Optimization of case finding and preventive treatment among household contacts of people with tuberculosis in Zimbabwe

UGANDA

ZIMBABWE

[1]Mudoola D, Thekkur P, Nsonga J, et al. Case finding among and comprehensive management of household contacts of persons with pulmonary tuberculosis: a pilot project - Uganda, 2023-2024. MMWR Morb Mortal Wkly Rep. 2025 Mar 20;74(9):145-151. doi: 10.15585/mmwr.mm7409a1. PMID: 40111922; PMCID: PMC11925267.

[2] Mapuranga T, Timire C, Ncube RT, et al. Optimization of Case Finding and Preventive Treatment Among Household Contacts of People with Tuberculosis in Zimbabwe. Trop Med Infect Dis. 2025 Dec 10;10(12):347. doi: 10.3390/tropicalmed10120347

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