Contact Investigation for Early Detection and Treatment of Tuberculosis

BACKGROUND

- Tuberculosis (TB) is the leading cause of death globally from an infectious agent, and Cambodia suffers from a high burden of TB, with only 61% of all estimated TB patients notified and initiated on treatment.
- Recently, Cambodia adopted many case finding approaches to promote early diagnosis and treatment, including active case finding and contact investigation (CI) at the community level to systematically and actively search for TB. TB CI contributes to early identification of active TB, thus decreasing its severity and reducing transmission to others, along with identifying latent TB infection to allow preventive measures.
- Even though CI is recognized as an important component of comprehensive TB activities in Cambodia, implementation has been patchy with few organizations and health facilities performing thorough contact investigation.

OBJECTIVE

To promote early diagnosis and treatment among close contacts of infectious TB patients and to increase access to quality TB service delivery at every level.

APPROACH

- With financial support from USAID through Challenge TB (CTB), FHI360 works closely with its counterparts and partners to increase overall case detection, to close the diagnostic gap, and to improve early TB detection by targeting specific high-risk groups using a standardized approach to CI. Together with staff from health centers (HC) and village health support groups (VHSG), CI is performed as a team with government staff leading the efforts to ensure program sustainability. Steps include:
  - HC staff responsible for TB activities enter all smear positive TB patients on the CI form.
  - The VHSG from the village where the TB index patient resides receives the CI form.
  - VHSG members then list all close contacts of the index patient on the form, including household and neighborhood contacts, adults and children, and the VHSG informs the head of family and neighbors of the date and time of TB screening.
  - HC staff together with the VHSG visit the community to gather the identified close contacts, so that HC staff can perform multiple symptom screening.
  - Sputum is collected onsite from all those with symptoms suggestive of TB, including older children who can produce sputum.
  - Children under five are examined to rule out TB, and parents receive counseling on Isoniazid Preventive Therapy (IPT) for their children. If the child is healthy and asymptomatic, IPT registration and initiation occurs in the community on the same day.
  - For those with symptoms, the second and third sputum will be either collected by the VHSG or the presumptive TB patients themselves will send it to the HC for smear testing.
Those found to be sputum smear positive will be registered and initiate TB treatment.
Those who have negative smear results, yet still have symptoms suggestive of TB will be referred to the Referral Hospital (RH) for further evaluation, including chest X-ray.

**KEY ACHIEVEMENTS**
- CTB provided intensive on-site mentoring and coaching to improve the capacity of over 4,822 government health care providers, including VHSG members, to conduct CI within the targeted Operational Districts (ODs).
- CTB provided high level technical assistance to key relevant staff including government counterparts (provincial health department, OD and HC) and local NGO partners.
- To institutionalize the practice, the Project developed Standard Operating Procedures on CI to both ensure quality within the project, and to guide the national program going forward.
- Between July 2015 and December 2017, 81,089 close contacts of smear positive patients were screened for TB, of whom 3,212 were found to have active TB and initiated treatment, including 1,779 children. In addition, 5,558 under 5 children commenced IPT for six months. 95% of all those on IPT nationally came from project areas, which cover 31% of the population.
- TB prevalence among close contacts was therefore 3.961/100,000, which is 6.3 times the national prevalence in the general population, demonstrating the critical importance of this specific intervention within the national TB response.

**CONCLUSIONS**

CI is an effective approach to identify TB cases and initiate treatment to further reduce transmission. At the same time, it provides an opportunity to ensure IPT for children, who have not able to access this important intervention. The assistance of existing VHSG will enhance the effort of HC staff for case finding and reduce the barrier to access for both the poor and for key populations. This approach should be widely applied in the Cambodian health system context to find the missing TB patients and help Cambodia move closer towards TB elimination.

**TB case finding through CI (Jul 2015-Dec 2017)**

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