



IMPROVING TUBERCULOSIS DIAGNOSIS AND TREATMENT IN INDONESIA'S PRIVATE SECTOR THROUGH COMPUTER-BASED TRAINING

Indonesia ranks fifth among the twenty-two high-burden tuberculosis countries in the world. The Global Fund is currently providing funding support to the National Tuberculosis Program (NTP) and the Indonesian Medical Association (Ikatan Dokter Indonesia, or IDI) for training private medical practitioners on directly observed treatment, short-course (DOTS) and the International Standards for Tuberculosis Care (ISTC) that are part of the STOP TB strategy. However, it is difficult to reach the large number of private practitioners in the country using classroom-based training due to the large geographic expanse of Indonesia and the logistics involved.

Approach

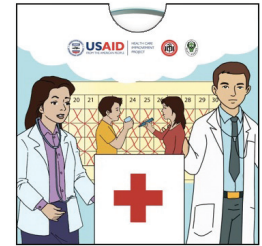
To support the NTP in its effort to train health practitioners, especially private providers, the United States Agency for International Development (USAID) requested that the USAID Health Care Improvement Project (HCI) update and adapt for Indonesia a computer-based training product that had previously been developed for Bolivia by the Quality Assurance Project.

HCI developed a partnership with the NTP, the Indonesian Medical Association, the Indonesian Midwife Association (IBI), and the Indonesian National Nurses Association (PPNI) to achieve the following objectives:

- Develop a TB CD-ROM and computer-based training package in Bahasa Indonesia for medical and other health practitioners



Patient information card included with the TB training package.



TB computer-based training packages designed for Indonesian doctors, nurses and midwives.

- Support the NTP and professional associations to disseminate the CD-ROM training package to improve diagnosis, management, and referral of tuberculosis patients in accordance with NTP guidelines.

The CD-ROM training package was developed based on the NTP's guidelines, in line with the recently updated International Standards for Tuberculosis Care.

To gain a better understanding of weak areas in current provider knowledge that should be reinforced through the training package, HCI conducted focus group discussions with both physicians and nurses in Indonesia.

The focus groups were particularly valuable to inform changes in the training

Contents of the TB CD-ROM for Physicians

1. Introduction, history, and epidemiology of TB
2. Pathogenesis of TB infection and tuberculosis disease
3. Diagnosis of TB infection and TB disease
4. Treatment of TB infection and TB disease
5. Treatment of TB in children
6. Adherence to TB treatment
7. TB and HIV infection
8. Multi-drug resistant TB diagnosis and management
9. TB infection prevention and control

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Left: Indonesia National Nurses Association members discuss the prototype CD-ROM for nurses during product development. *Middle:* Demonstration and dissemination of the TB training package at the National Symposium of Indonesia Antimicrobial Resistance Watch, held in Jakarta in July 2011. *Right:* Staff from Persahabatan Hospital review the content of training modules. *Photos by Nurfina Bachtiar, URC.*

content for TB service delivery by private midwives and nurses, who are important frontline providers in rural areas. Members of the Indonesian Midwife Association and Indonesian National Nurses Association helped HCI to expand the content of the training product to address the midwife's role in TB services.

Production of the Computer-based Training Package

Working with a local media company (One Comm) in Jakarta, HCI developed the content and formatting of the CD-ROM and accompanying materials. The training package includes the following pieces, in the Bahasa Indonesia language:

- TB computer-based training CD-ROM covering nine modules for doctors and six modules for nurse/midwife.
- Job aids such as the Fact Sheet for Health Professionals on TB and MDR TB: Infection and Transmission and an information card for patients which was adapted from one developed in South African by the TASC II Tuberculosis Project.

Two computer-based training packages, one for doctors and the other for nurses and midwives, were created. The training is anticipated to reach approximately 65,000 public and private doctors and other health workers in Indonesia.

- A manual developed by IDI on tuberculosis case management using DOTS
- A pocket guide on the International Standards for Tuberculosis Care

Results

Two computer-based training packages, one for doctors and the other for nurses and midwives, were created, following the structure of the training modules already in use by IDI and the NTP of Indonesia.

The physician version of the CD-ROM was completed in July 2011 and distributed at professional meetings for medical doctors. The training package for nurses and midwives, including the job aids and patient information card, was completed in August 2011.

In addition to distribution at the professional associations' conferences and through their networks, the TB training modules are available online on the HCI Portal (www.hciproject.org/idn_tb_course) and on the IDI website (www.idionline.org/edukasi_tuberkulosis/). Members of the associations who pass the course receive certification through their association. Through these arrangements, the TB training is expected to reach approximately 65,000 health providers in Indonesia.