

Preventing the spread of TB

Improving infection prevention and control in India's health facilities

THE IMPORTANCE OF INFECTION CONTROL

India has one of the highest TB burdens in the world, and protecting patients, health care workers, and communities from the spread of this infectious disease is crucial to bringing it under control. Recognizing the lack of updated infection control measures in many of the country's health facilities, India's National Airborne Infection Control Committee and Central TB Division jointly prepared and issued Guidelines on Airborne Infection Control in Healthcare and Other Settings in April 2010.

APPROACH

With funding from the US Agency for International Development, PATH works with the Revised National Tuberculosis Control Program and the World Health Organization (WHO) to help implement the guidelines in 35 facilities. PATH's comprehensive approach includes:

- Conducting risk assessments to ensure that local decision-makers are informed of potential infection control gaps and priorities.
- Developing infection control educational materials for health workers to help them protect themselves and their patients.
- Convening experience-sharing and sensitization workshops for national TB program staff and health workers and conducting technical assistance visits.
- In collaboration with Partners in Health, training local engineers and architects responsible for health facility designs and renovations in effective planning for infection control.

IMPLEMENTATION

Improving practices

Airborne infection control (AIC) plays a key role in combatting airborne diseases like TB through a combination of measures aimed at minimizing the risk of TB transmission. The Chowdawaram Community Health Center (CHC), in the state of Andhra Pradesh, is one of



PATH/Gabe Blenczycki

many facilities PATH supported to implement infection control measures in accordance with the new national guidelines. It is also the first private-sector health facility in India to apply the guidelines.

Before PATH began collaborating with the CHC, its administrator offered the following description of the facility: "Most of the patient service areas were overcrowded and sputum collection [for TB testing] was done inside the building, which increases the risk of airborne infection." Facility staff were trained in how to make changes in administrative procedures, such as reducing crowding in waiting areas, screening and fast-tracking TB patients, conducting patient education, and collecting sputum samples in an open area. The center also instituted policies that stagger times that high-risk patients come to the facility for services and ensure that well-ventilated seating areas are available.

Improving design

Sound infection control also requires that buildings be designed with ventilation and other preventative measures in mind. PATH collaborated with the Central TB Division; Partners in Health; the US Centers for Disease Control and Prevention; LRS Institute of TB and Respiratory Disease, New Delhi; and the WHO to train India's leading engineers, architects, and health

administrators in AIC techniques for improved safety of health facilities. The course, titled “Building design and engineering approaches to airborne infection control,” was held in New Delhi and Hyderabad. The training included a combination of didactic lectures and practical, field-oriented activities. It focused on equipping participants with the skills needed to incorporate AIC concepts into new building plans and to ensure that AIC is well integrated with existing health care infrastructure.

RESULTS

After the trainings on AIC and risk assessments at the CHC, the center’s superintendent implemented cost-effective measures to reduce the transmission of airborne infections. The center now has a well-functioning Hospital Infection Control committee, and all health workers have since been trained in infection control, including the AIC guidelines. Administrative and environmental procedures to reduce airborne transmission have also been put into place. These include fast-tracking patients with respiratory symptoms, open windows and doors for increased ventilation, and posters and guidelines on cough hygiene posted in waiting rooms.



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Almost 60 participants from 15 states throughout India attended the building design course. Faculty from the state TB training and demonstration centers, as well as engineers and facility managers from the public and private sector, are now equipped to advise others in their home states. Facilities in West Bengal, Gujarat, and Andhra Pradesh are implementing AIC recommendations through the Ministry of Health and Family Welfare’s National Rural Health Mission (to learn more about the outcomes of these trainings, please refer to the detailed AIC Training Evaluation Report).

LESSONS LEARNED/WAY FORWARD

This project provides a number of important programmatic lessons, which should be considered in order to further support implementation of India’s national guidelines on infection control:

- Involving administrators and policymakers in AIC trainings helps to increase resources required to implement follow-up. It also helps to accelerate implementation. For example, when senior state managers participated in the training, they were motivated to increase budget allocations for AIC implementation, while in Maharashtra, freshly motivated institutions began implementing AIC activities voluntarily.
- Health facilities should be supported to develop tailored infection prevention plans at the facility level. Plans should include clear roles and responsibilities and a monitoring and evaluation plan to help ensure that progress toward implementing the national guidelines is maintained after trainings are complete.