

Improving tuberculosis services in Mumbai

PATH connects with private providers to improve TB care for urban populations at high risk

India has more cases of tuberculosis (TB) than any other country—an estimated 2.3 million. Many of these cases are found in urban slums, such as those in Mumbai. About 9 million people now live in Mumbai's slums, and the number in slums across India may reach 100 million by 2017.

PATH has supported development of a Private Provider Interface Agency (PPIA) in Mumbai to increase the private sector's role in achieving universal access to TB services. The PPIA strengthens the capacity of private practitioners serving people in slum areas to ensure early, accurate diagnosis of TB (including drug-resistant forms), effective case management, and successful treatment. This unique model for public-private partnership could be adapted to meet fast-growing needs for services for other diseases of public health importance, such as pneumonia and noncommunicable diseases, and could be expanded to other urban areas.

ROOTS OF THE PROJECT

By 2011, health officials in Mumbai recognized that the spread of TB, including drug-resistant forms, had become a crisis. The Municipal Corporation of Greater Mumbai—in partnership with the Central Tuberculosis Division, the World Health Organization, and the Bill & Melinda Gates Foundation—subsequently formed the Mumbai Mission for TB Control (MMTBC).

Since Mumbai reported the first 12 cases of totally drug-resistant TB in January 2012, health officials have made major efforts to reach out to informal, traditional practitioners who are often the first point of contact for people who may have TB. The MMTBC has been operational since August 2014 and has helped ensure local access to TB diagnostic and treatment services.

The PPIA operates as part of the MMTBC. It is an innovative mechanism to network private-sector providers to enhance timely TB diagnosis and treatment. The idea to engage the private sector to improve services was advanced by the Central Tuberculosis Division in its National Strategic Plan, 2012–2017.

PATH'S ROLE

Under the guidance of the Municipal Corporation of Greater Mumbai, PATH is implementing the PPIA, which is a comprehensive urban TB service delivery model. PATH partners with two local community-based organizations—the Association for Leprosy Education, Rehabilitation, and Treatment (ALERT) and Maharashtra Janavikas Kendra—to engage private providers—including informal and formal practitioners, laboratories, hospitals, and chemists—across Mumbai.

The PPIA has also established a technology-based patient registration and management platform for reimbursing service providers, such as laboratories and chemists. The PPIA aims to improve TB services by



PATH/Tom Furtwangler

Role of community-based groups

The Association for Leprosy Education, Rehabilitation, and Treatment (ALERT) and Maharashtra Janavikas Kendra have played a crucial role in the PPIA. For example, these community-based organizations (CBOs) have set up registration desks at hospitals for patients diagnosed with TB. The registration identifies patients for enrollment in the information and communication technology system called Universal Access to TB Care. The system includes a call center and provides many benefits, such as generating electronic vouchers for patients to receive free testing and medicines and reminding patients via text messages and phone calls to take their medicines.

In addition, CBO staff provide counseling to TB patients and their families. They have increased treatment success rates by improving adherence to treatment regimens while providing psychological support to patients. To date, the CBOs have registered more than 14,000 TB patients.

facilitating early and accurate diagnosis, case notification, follow-up to ensure treatment according to national standards, and completion of treatment to increase cure rates.

PPIA MODEL

Patient subsidies are implemented through a voucher mechanism. AYUSH (Ayurveda, Yoga and Naturopathy, Unani, Siddha, and Homeopathy) doctors prescribe digital chest X-rays for coughing patients at nearby PPIA-engaged laboratories. If the patient is suspected of having TB based on the X-ray, he or she is referred to a hub hospital, where a chest physician or internal medicine consultant provides specialized testing and care. Confirmatory diagnosis of TB is made via GeneXpert® test, which also enables early diagnosis of drug-resistant TB.

If a patient is diagnosed with drug-sensitive TB, she receives free first-line anti-TB drugs from a private chemist through a system of electronic vouchers. If the patient is resistant to rifampicin, she is referred to the public sector for treatment. A contact center runs the e-voucher mechanism and supports field workers in facilitating treatment adherence. Patients receive regular reminder text messages and phone calls to ensure adherence. Drug refill schedules are tracked to ensure compliance.

BENEFITS FOR PRIVATE PRACTITIONERS

The PPIA has been beneficial for private practitioners. As one practitioner noted, “When I am unsure and suggest the diagnostics—with the results coming in quickly and the patients being tracked by the PPIA—I am quickly able to refer the patient to a chest physician.” Another practitioner noted that the PPIA makes it very easy for patients to start and continue treatment. Another doctor remarked, “Since the patient remains with me during the course of treatment, he comes back for regular consultations and my revenue remains intact.”

PROGRESS TO DATE

As of September 1, 2016, the PPIA network comprised 3,670 private practitioners, including 2,115 AYUSH practitioners working in slums and 1,555 qualified allopathic physicians working at 607 hospitals and clinics, along with 366 pharmacists and 268 laboratories. Under the project, 30,500 free chest X-rays and 22,779 GeneXpert tests have been conducted; PPIA network physicians have initiated 26,199 TB patients on treatment; and 11,095 patients have successfully completed treatment. PPIA network providers have also diagnosed 2,711 multidrug-resistant TB (MDR-TB) patients and guided them to public health facilities for treatment. PPIA has enabled a four-fold increase in TB case notification rate from the private sector from 53 per 100,000 in 2014 to 227 per 100,000 in early 2016.

THE WAY FORWARD

The PPIA project is striving to demonstrate a replicable model for public-private collaboration to control TB as envisioned by the National Strategic Plan. It has already evolved to include HIV testing for TB patients and outreach to MDR-TB patients in the private sector. The project is a strong candidate for expansion and scale-up, with context-specific changes for TB control in urban areas across India.

Lessons learned from the project have informed similar initiatives in Chennai, Kolkata, Hyderabad, and Bengaluru. The project also provides a service delivery model for addressing other public health concerns, such as pneumonia and noncommunicable diseases.

The TB patient's perspective

A 17-year-old girl named Rabiya had a nagging pain in her shoulder. She and her family thought it might be a pulled muscle. But Rabiya also developed breathlessness, and the pain got worse. Her family doctor sent her to Sarvodaya Hospital, which is part of the PPIA network.

After a doctor at the hospital reviewed her case, Rabiya and her family talked with a representative from the Association for Leprosy Education, Rehabilitation, and Treatment (ALERT), a community-based group providing TB support services. “We asked a lot of questions, and we were given all the answers,” said Rabiya’s father. Through the PPIA program, Rabiya received vouchers for a chest X-ray and GeneXpert test. After being diagnosed with TB, she also received free medicine.

Rabiya was motivated to complete her treatment by her contacts with physicians at the hospital and with an ALERT staff member named Pramila. “Pramila visited me regularly and called me to remind me to collect my medicines,” said Rabiya. “She also asked me to eat well to build up my strength.”

The PPIA program contributed to curing Rabiya of TB and preventing her from spreading the illness to others.



PATH is the leader in global health innovation. An international nonprofit organization, we save lives and improve health, especially among women and children. We accelerate innovation across five platforms—vaccines, drugs, diagnostics, devices, and system and service innovations—that harness our entrepreneurial insight, scientific and public health expertise, and passion for health equity. By mobilizing partners around the world, we take innovation to scale, working alongside countries primarily in Africa and Asia to tackle their greatest health needs. Together, we deliver measurable results that disrupt the cycle of poor health. Learn more at www.path.org.

351, Building Number 3,
Solitaire Corporate Park,
Andheri Ghatkopar Link Road, Andheri (E),
Mumbai – 400093

www.path.org