Plan TBCero: A Successful Patient-Centered Strategy in a High Tuberculosis and Multi-Drug-Resistant Tuberculosis Incidence Area in Lima, Peru

Problem:

- Historically, the jurisdiction assigned to the San Cosme Health Center (HC), located in the La Victoria District of Lima, has had one of the highest tuberculosis (TB) rates in Peru.

- The HC has an assigned population of 20,103. In 2008, 205 new cases of TB were diagnosed, resulting in an incidence rate of 1,018 cases per 100,000 inhabitants. Proportion of multi-drug-resistant tuberculosis (MDR-TB) was 12%, and the comorbidity rate with HIV was less than 3 percent.

- Social determinants of TB, such as overcrowding, extreme poverty, migration, alcoholism, drug addiction, anti-social conduct (undocumented felons), underemployment, and an informal economy, are concentrated in this zone of Lima.

- The San Cosme HC’s TB program was staffed by a general practitioner, two licensed nurses, and a technician who saw 80 to 120 patients per day. Limited facilities occasionally led to overcrowding. In the first semester of 2008 the cure rate for first-line anti-tuberculosis treatment was 69.3 percent, with a high proportion of treatment abandonment (20.4 percent) due to patients’ social profiles and the minimal capability of the health care providers to follow-up.
Intervention:

- The local Health Directorate, in coordination with the head of the HC, made a political decision to change the situation. Health authorities of the regional health unit and the mayor’s office of the municipality of La Victoria, through a public-public partnership, discussed and accepted the center’s plan, Plan TBCero (“Zero TB Plan”).

- Planning and coordination began in March 2009 and implementation of Plan TBCero was gradual since April 2009 with three operational strategies:

  1. Patient-centered care. The plan involves recruiting family practitioners and health promoters from a neighboring jurisdiction who are dedicated to external activities to guarantee adherence, studies of contacts, and active uptake in the community (extension of community services).

  2. Differentiated attention to patients with negative sputum bacilloscopy with the establishment of the “Casa de alivio (Relief home) of San Cosme” [1], financed by the Municipality of La Victoria. This center allows for continued treatment when patients have a negative sputum test.
bacilloscopy and integrated management (including psychology and social assistance) for adequate reintegration into the workforce.

3. Active detection of probable TB cases in community settings. Community settings include education centers, work centers, and bars.

Results:

- Achieved a patient-centered strategy, especially for patients with serious social and legal problems who benefit from the provision of family medicine
- Increased detection of persons with respiratory symptoms (probable TB cases) due to active search of intra-household contacts and broadened search of inter-household contacts
- Improved care and follow-up for patients with TB, as reflected in reduced abandonment rate of 3.5 percent and increased cure rate of 96.4 percent by the end of 2010
- An abandonment rate of 0 percent among the 148 patients who continued treatment through the Home Care Center and received social support for rejoining the labor force (to date, 14 have written CVs, and three have obtained a new job)
- Consolidated a multidisciplinary team to resolve social and cultural problems in the community
Lessons:

Broadening home health care with a patient-centered approach financed by a public-public partnership resulted in a significant increase in treatment adherence and an improved cure rate for the first-line drugs regimens in patients with TB in an area of Lima with high risk of TB transmission.

- Differentiated management in relief cases was a strategy to shift care from the health center based model to one offering personalized management with extensive work in the community, guaranteeing their adherence to treatment.

- This case underscores the importance of clearly defined and multidisciplinary teamwork with a shared goal and combined budgets from different government agencies.
Results

**Tuberculosis** [5]
**MDR/XDR TB** [6]
**TB case management** [7]

**Countries:** Peru [8]

**Report Author(s):** Luis Fuentes-Tafur, MD; Pamela Canelo, MD; Wilder Carpio, MD; Eduardo Rumaldo, MD.

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**Improvement Story** [9]

**English** [10]

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