



# LAC Gender Impact Evaluation Initiative

Building Agency through Practical Interventions

## TB Treatment Adherence in Lima, Peru: How Does Gender Make a Difference?

**This evaluation estimates the impact of a program that provides psychological, social, and economic support to families affected by TB in addition to standard TB treatment on TB treatment completion and adequate TB treatment adherence.** The evaluation will also assess how outcomes may differ for men and women. Tuberculosis is a highly contagious and curable disease, which disproportionately affects the malnourished and the poor. In 2011, the World Health Organization (WHO) reported that 8.8 million people worldwide were affected by the disease and 1.1 million were killed by the disease. The treatment of TB requires that a person medicate regularly for a period of six months and sometimes up to a year and a half. Poor adherence to the TB treatment regimen can produce drug resistant strands of TB. Since TB is highly contagious and because a person passes along the strand of TB that they currently have there are many harmful societal externalities to inconsistent adherence to the TB drug regimen.

### Program Design

In Peru, the testing and the treatment for TB is free (once you arrive at a point of service); nevertheless, in 2011, the incidence of TB reached 31,000 cases, resulting in 1,800 deaths. People who are malnourished or already sick more easily contract TB. As such, there is a higher rate of infection among poorer populations. TB also affects the physical strength of an infected person, which affects that person's ability to generate income and in turn may worsen a household's poverty level.

In 2007, PRISMA, a local NGO in Lima, Peru, began a program that provided psychological, social, and economic support to families affected by TB. The program addressed the challenges facing patients

**Intervention Period:** Implementation  
began in 2007

through a variety of channels: providing support for engagement in economic activities such as handicraft workshops, teaching nutrition and preventative health, psychological support for patients with depression, and occasional cash transfers and food supplements based on field nurse assessments of need. In addition, each patient received bi-weekly home visits during which TB treatment adherence was monitored and family members with respiratory symptoms were screened for TB.

## Evaluation Design

Eight health centers were randomly assigned to a control group and another eight health centers selected to participate in the combined treatment offered by PRISMA in a phased in design. The order of the roll out within the 8 intervention Health Centers was also randomized. Enrollment in the PRISMA program at treatment health centers was offered to patients that had opted for a TB test and tested positive for TB. Using a difference-in-differences approach the evaluation will be able to estimate the effects of PRISMA participation on TB treatment completion and adequate TB treatment

**Sample Population:** Participants at health centers in Peru. **Identification Method:** Difference-in-Difference

adherence as compared to individuals that did not receive the PRISMA treatment within the 8 control group health centers.<sup>1</sup>

<sup>1</sup> TB treatment completion = 1 if the patient finished treatment and 0 if dropped out. Adequate TB treatment adherence = 1 if the patient finished TB treatment in the suggested time and 0 if the patient delayed doses or dropped out.

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## Findings

**Areas that were part of this program were nearly twice as likely as those that were not to comply with the TB treatment program.** While rates of TB initially appeared to be higher amongst men, it was found that the TB rate amongst women was actually higher, but that women were less likely to be tested for TB. It is believed that this was caused by the belief that men's health is more

important than women's, since men typically are the wage earners in a household. The implementation of this program improved women's rates of TB treatment drastically by having testing done for all family members of those with TB in the household. This revealed the reality of women's TB rates and ensured that they received treatment.

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## Publications:

Perova, Elizaveta and Renos Vakis. *Improving Gender and Development Outcomes Through Agency: Policy Lessons From Three Peruvian Experiences.* (2013)

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