



#Courage #Compassion #Culture

# 2021 Annual Meeting

GAYLORD NATIONAL RESORT AND CONVENTION CENTER  
NATIONAL HARBOR, MARYLAND, USA

**November 17-21**

astmh.org | ajtmh.org #TropMed21 #IamTropMed

[Print this Page for Your Records](#)

[Close Window](#)

**Control/Tracking Number:** 21-LB-3332-ASTMH

**Activity:** Late Breaker Abstract

**Current Date/Time:** 8/4/2021 11:08:38 PM

## **Informing evidence-based strategies for Bolivia to achieve the World Health Organisation target of zero catastrophic costs for tuberculosis-affected households.**

**Author Block:** Paula P. Carballo-Jimenez<sup>1</sup>, Sumona Datta<sup>1</sup>, Luz Quevedo<sup>1</sup>, Linda Chaname-Pinedo<sup>2</sup>, Soraya Roman<sup>3</sup>, Freddy Tinajeros<sup>4</sup>, Carmen Ortuño<sup>3</sup>, Lidia Flores<sup>3</sup>, Daniel Encinas<sup>3</sup>, Robert H. Gilman<sup>5</sup>, Carlton A. Evans<sup>1</sup>, Matthew J. Saunders<sup>1</sup>, Matthew J. Saunders<sup>1</sup>

<sup>1</sup>Imperial College London, London, United Kingdom, <sup>2</sup>Prisma NGO, Lima, Peru, <sup>3</sup>Bolivian National TB program, Santa Cruz de la Sierra, Bolivia, Plurinational State of, <sup>4</sup>Prisma NGO, Santa Cruz de la Sierra, Bolivia, Plurinational State of, <sup>5</sup>Johns Hopkins Bloomberg School of Public Health, Baltimore, MD, United States

### **Abstract:**

The World Health Organization mandates that zero-tuberculosis-affected households should experience catastrophic costs and advocates for providing socioeconomic interventions to reduce poverty associated with tuberculosis. We studied costs experienced by tuberculosis-affected households in Bolivia given there are no catastrophic cost surveys in the country and we modelled strategies to inform the design of future socio-economic interventions. Between January and March 2020, patients with tuberculosis who were completing treatment at 17 health centres in impoverished areas of Santa Cruz de la Sierra, Bolivia were recruited using convenience sampling. Data were collected on demographics; household income; and direct (household expenses) and indirect (lost income) tuberculosis-associated costs. Data were collected in Bolivian Bolivianos (Bs) and converted to United States Dollars (\$). Catastrophic costs were defined as tuberculosis-associated costs exceeding 20% of the household's annual pre-illness income. 91 patients were recruited. The mean annual pre-illness household income was \$7,076 (SD=\$3,528) and mean total tuberculosis-associated costs were \$1,152 (SD=\$858) of which \$645 (56%) was lost income and \$507 (43%) was direct expenses. Overall, 27/91 households (29%) incurred catastrophic costs, with households in the lowest income quartile significantly more likely than those in the highest income quartile to incur catastrophic costs (65% versus 5% p<0.001). A standardized intervention to reduce catastrophic costs by 90% in this cohort would cost \$1,055 per household and avert 25 households from

incurring catastrophic costs per \$100,000. In contrast, targeted intervention for the poorest households aiming to completely reimburse their direct expenses would cost \$409 per household, avert 117 households from incurring catastrophic costs per \$100,000, and would reduce catastrophic costs in this cohort by 41%. Despite the provision of free tuberculosis treatment, tuberculosis-associated costs were high and inequitable among impoverished people in Santa Cruz. This study highlights the importance of integrating socio-economic interventions with biomedical interventions for tuberculosis and provides data informing the design of such interventions.

**Category (Complete):** Clinical and Applied Sciences - Global Health

**Presentation Preference (Complete):** Oral

**Keyword (Complete):** Tuberculosis ; catastrophic costs ; households

**Disclosures (Complete):**

**Response :** I did not indicate a conflict of interest.

**Please Select:** I confirm

**Response:** I confirm

**Additional Info (Complete):**

**\* Required:** Colleague

**\* Required:** I am not an ASTMH member

: Fellow

**If you indicated a financial relationship with a commercial interest, does the content of your presentation include discussion of any research conducted or products manufactured by the commercial interest?**

: Yes

**Gender (for demographic purposes): \* Required:** Female

**Country of Origin (for demographic purposes) \* Required:** Bolivia

**Country of Residence (for demographic purposes) \* Required:** Peru

**Please indicate approximate career stage (for demographic purposes only) \* Required:** Mid-career

: November 2021 or later

: yes

**\* Required:** Yes

: Global health

**Payment (Complete):** Your credit card order has been processed on Wednesday 4 August 2021 at 11:02 PM.

**Status:** Complete

[American Society of Tropical Medicine and Hygiene](#)

241 18th Street, South

Suite 501

Arlington, VA 22202

Email: [mrogliano@astmh.org](mailto:mrogliano@astmh.org)

Helpdesk: 217-398-1792 (Monday through Friday 9:00 am-5:00 pm Central Standard Time)

or [OASIS Helpdesk](#)

 [Feedback](#)

Powered by [cOASIS](#), The Online Abstract Submission and Invitation System <sup>SM</sup>

© 1996 - 2021 [CTI Meeting Technology](#). All rights reserved. [Privacy Policy](#).