

Chagas disease underdiagnosed in Spain, analysis concludes

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A high percentage of people from Latin America are infected with the parasite that causes Chagas disease. This is the conclusion of an analysis of nearly 3,000 people from countries where the disease is endemic and who attended the International Health Service at Barcelona's Hospital Clinic, over a 17-year period.

The study, published in *PLOS Neglected Tropical Diseases*, was led by the Barcelona Institute for Global Health (ISGlobal).

Nearly 7 million people in the world are estimated to be infected with *Trypanosoma cruzi*, the parasite that causes Chagas disease. Although the vector that transmits the parasite (the kissing bug) is endemic in 21 Latin American countries, the parasite has spread globally due to migratory flows. In non-endemic countries, the parasite can be transmitted vertically, from mother to child or, less commonly, through blood or organ donations. In 30–40% of cases, the [infection](#) ends up [damaging the heart and digestive system](#), causing Chagas disease.

"It is therefore recommended that Latin Americans arriving in the country be tested in order to treat them if they are infected and, in the case of women of childbearing age, to prevent the vertical transmission of the parasite," explains Irene Losada, coordinator of the Chagas Initiative and first co-author of the study, along with Pedro Laynez-Roldán, ISGlobal researcher and physician at the Clínic's International Health Service.

This [retrospective study](#) describes one of the largest samples of people at risk of infection in a non-endemic country: 2,820 Latin Americans, the vast majority from Bolivia, who attended the International Health Service of the Hospital Clinic of Barcelona between 2002 and 2019.

Of the total number of people analyzed, almost half (47%) were infected with *T. cruzi* and 17% had heart lesions typical of the disease. Although in most cases an electrocardiogram was sufficient to detect the lesions, an echocardiogram was needed in 10% of cases. "These results reinforce the importance of echocardiograms in the initial assessment of patients with *T. cruzi* infection," says Laynez-Roldán.

The authors note that many people arriving from highly endemic regions

of Latin America, such as Bolivia, had never been tested before. "The infection is clearly underdiagnosed even in Spain, one of the European countries with the highest diagnostic coverage," warns Maria Jesús Pinazo, last author of the study, former researcher at ISGlobal and currently at DNDi.

The majority of the cases are women of working age, reflecting the migratory flows of recent years, which allows for better targeting of screening and prevention programs.

More information: Characterization of Latin American migrants at risk for *Trypanosoma cruzi* infection in a non-endemic setting. Insights into initial evaluation of cardiac and digestive involvement, *PLoS Neglected Tropical Diseases* (2023). [DOI: 10.1371/journal.pntd.0011330](https://doi.org/10.1371/journal.pntd.0011330)

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