

or two full meals per day), poor housing (precariously constructed) and/or poor education (illiterate or with incomplete primary education). Thus, in the study population, 3,572 patients (74%) ($p < 0,001$) were considered to be at poverty level. The conclusions of the study were compelling:

1. In a population with Chagas, healthy according to cardiological studies by the Chagas Network of the GCBA, a significant unemployment rate due to discrimination was observed, which in turn favors the presence of poverty and low levels of education.
2. Those employed were paid "under the table" (without an employment contract). Therefore, high unemployment added to the prevalence of under-the-table work determines the lack of access to a health insurance plan, in order to receive better medical care and discounts on drugs when necessary.
3. The rights to work, education and decent housing are seriously compromised in a population "stigmatized" for having Chagas disease although they are healthy enough to perform all types of activities.
4. "Poverty" may be the cause or the consequence of Chagas disease. Whichever the case, those affected are placed in a serious position of inferiority before the population without Chagas. Social ethics does not seem to cover people stigmatized simply because they have a reactive blood test.

All of this serves to demonstrate that it will be very difficult to change this characteristic of the disease in a few years' time, as accurately described by the author (1) using the criterion of "visibility and invisibility of the disease," still relevant today.

Chagas disease: a complex problem

Enfermedad de Chagas: un problema complejo

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Commentary on: Zabala JP. The disease in its labyrinth: advances, challenges and paradoxes over 100 years of Chagas in Argentina. *Salud Colectiva*. 2012;8(Suppl 1):S9-S21.

I share Zabala's view (1) that Chagas is a complex entity, with biological, environmental, economic, labor, political, educational, and sociocultural factors whose convergence creates a vicious circle in which the subjects and their environment are immersed and from which it is difficult for them to escape.

This complexity makes it necessary for multidisciplinary teams to intervene in order to manage the problem in its entirety (2). It is also true that health care professionals show a lack of interest in this issue as well as cognitive deficiencies, as stated by Zabala (1), possibly due to deficits in their training.

We must acknowledge that public health policies have confronted the problem, allocating substantial financial resources to disease control, housing, promotion and education. Nevertheless, the problem remains endemic in areas that have not been reached by the available resources, areas with a high risk of transmission where determining factors have not been modified; high-cost activities have been carried out without ensuring the continuity necessary for results to be sustainable.

In terms of research, there has been significant development in the disciplines that study this issue, greatly impacting the knowledge regarding *Trypanosoma cruzi*, the vector, transmission mechanisms, and the immunology and pathology of the disease, among other aspects. A decrease in transmission has thus been achieved, although it is not a generalized decrease, as marked differences exist in some provinces.

The subjects, victims of the problem, are invisibilized due to many factors: one the one hand, due to the lack of knowledge about the disease, the little social demand existing, the decrease in expectations, the isolation and abandonment due to lack of information; and on the other hand, employment discrimination, related to their low levels of education and their supposed inability to work. As the hiring process is terminated with a positive serological result without ever reaching a definition of their clinical state, these subjects are led to frustration. A process is therefore enabled by which subjects are submerged into the informal labor market, with low wages and a very poor quality of life, and are thus enclosed within a vicious circle that prevents them from moving forward (3,4).

The efficiency of public health policies varies in the provinces with the highest risks, which show a state of inertia regarding primary and secondary prevention. This attitude of inaction worsens the problem and becomes more noticeable with the horizontalization of the disease control programs.

It is evident that Chagas disease is a complex problem which requires:

- multidisciplinary teams highly trained and prepared for decision-making, with effective and efficient financial and human resources;
- national policies articulated with provinces and local governments in all regions, giving priority to high-risk areas (5);
- political and administrative continuity for implementing programs;
- training in diagnosis and treatment, so that health care professionals become protagonists instead of passive spectators.

The urbanization of Chagas increases the complexity of medical care due to its association with other pathologies and states of immunodepression, with a high social and economic cost to the public health system, which requires a critical mass of professionals to diagnose and treat reactivations.

To conclude, Law 26281 (6) stipulates the protection of subjects from prevention to free treatment, involving all workplace, social and political actors, in professional, technical or administrative roles, with their corresponding responsibilities.

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Chagas disease: A brief analysis of some of the factors influencing the disease's persistence

Enfermedad de Chagas: breve análisis de algunos factores que influyen en su persistencia

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Commentary on: Zabala JP. The disease in its labyrinth: advances, challenges and paradoxes over 100 years of Chagas in Argentina. *Salud Colectiva*. 2012;8(Suppl 1):S9-S21.

As Dr. Juan Pablo Zabala's excellent article (1) demonstrates, Chagas disease offers a clear example of the need to find points of connection between the biomedical and social sciences, which often travel in separate lanes. The complexity of this endemic disease requires the perspectives of different disciplines as well as the making of political decisions to which these different disciplines should contribute. In this way, social, bioethical, psychological, anthropological and philosophical aspects must be present in any discussion aimed at making the problem "visible" and contributing to its solution, considering the human being as the main objective. Foucault's (2) concepts of biopolitics and biopower and Badiou's (3) notion of spectacle bodies, enslaved bodies and bodies with ideas serve as examples of this.

I will discuss some aspects that I consider significant (although strictly speaking, Zabala's whole article is significant) from a biomedical perspective based in my professional training and

from a social perspective based in my personal inclinations.

I agree with Zabala's lucid way of addressing the problem using the tension of visibility-invisibility. I also consider central his questioning of the persistence of the disease for more than 100 years and his critique of the simplistic approaches adopted in an attempt to explain that persistence.

The multiple paradoxes accompanying Chagas disease start with the discovery of *Trypanosoma cruzi*, the etiological agent, and the disease caused by this parasite. Due to several circumstances – among them the famous "mistake of Carlos Chagas" in attempting to establish a cause-and-effect relationship between trypanosomiasis and goiter, two entities associated in time and space – this disease has always been the subject of discussion. Unfortunately, these discussions, rather than contributing to the solution of the problem, have pushed it into the background and subordinated it to irreconcilable personal positions, political ups and downs, excessive "medicalization," among other situations that have favored such descriptions as "forgotten disease," "silent and silenced endemic disease" or "hidden harm." Even the World Health Organization (WHO) includes it among the sadly labeled "neglected diseases," an adjective undoubtedly well applied to describe men and women whose "invisibility" marginalizes them (1), as stated by Zabala. Or, in the words of Dr. Ramón Carrillo: "Faced with the diseases caused by misery, faced with the people's sorrow, anguish and social misfortune, microbes, as causes of disease, are poor causes."

In the article under discussion, there is a quote from a WHO publication (4) according to which "official data" reveal that 8 million people are infected. If in Latin America just a few years ago the number of infected was estimated at 18 million people, it is difficult to understand how this last official data, "decreasing" year by year,