

## **Call for Partners: Community Driven Chagas Control Promotion in Great Chaco**

We invite others to join us in fighting Chagas in the Gran Chaco region of Argentina, Bolivia and Paraguay.

### **Why Gran Chaco?**

The Gran Chaco region extends into Argentina, Bolivia and Paraguay. In 2006, the area was inhabited by approximately four million people, 60 percent of whom lived under the poverty line—way higher than the national poverty rates of each individual country. Most of its population is indigenous (Zamuco, Guaycurú, Maskoi, Matakó-Maká Tupi and Guaraní), greatly concentrated in small and dispersed communities and cities of less than 30,000 inhabitants (Metz, 2006). Dismal economic conditions have propelled migration from the region, mainly to urban slums.

### **Why Chagas?**

It is estimated that around 7 to 8 million people worldwide are infected with *Trypanosoma cruzi* (the parasite that causes Chagas disease), most of them living in Latin America. The *T. cruzi* parasites are mainly transmitted by the infected feces of blood-sucking triatomine bugs, which live in the cracks of poorly-constructed homes in endemic areas. The bug hides during the day and becomes active at night when it feeds on human blood and defecates close to the bite. The parasites enter the body when the person instinctively smears the bug feces into the bite, the eyes, the mouth, or into any skin break. The parasite is also transmitted by blood transfusions, passage from an infected mother to newborn during pregnancy or childbirth, organ transplant, and food contaminated with *T. cruzi*.

If left untreated, around 20% to 30% of those infected with *T. cruzi* will develop cardiac or digestive complications, which will lead to high disability and, eventually, premature death. To deal effectively with the disease, the World Health Organization recommends implementing prevention and control strategies, including dwellings improvement, insecticide spraying of houses and surrounding areas; good hygiene practices in food preparation, transportation, storage and consumption; screening of blood donors; testing of organ, tissue or cell donors and receivers; and screening of newborns and other children of infected mothers to provide early diagnosis and treatment.

Since the 1990s, national and regional programs and initiatives to control the spread of the Chagas disease have been implemented, leading to significant reductions in vectorial transmission and through blood transfusions. Nevertheless, significant challenges remain in maintaining and consolidating those advances, avoiding re-emergence of the disease in regions where control has been established, preventing dissemination and improving treatment of the disease in non-endemic areas due to increasing population mobility, and also on increasing effective access to diagnosis and healthcare for millions of already infected people.

## What are the main challenges to control Chagas?

Providing effective healthcare to those infected with Chagas is a major challenge: (i) available drug treatments are curative only in the acute phase or early chronic infections (60% to 85%), and in congenital cases (90% when treated in the first year of life); thus, early detection is critical; (ii) available drugs have to be administered through relatively long periods of time (30 to 90 days), often presenting side effects; these limitations cause high patient non-compliance and make case management difficult; (iii) diagnosis tools and protocols tend to be complicated when applied at primary healthcare centers; therefore, there tends to be under provision of screening services; (iv) population in endemic areas tend to be misinformed about available treatments and the infection is stigmatizing; this produces a lower use of available healthcare services. Moreover, large scale human migrations from endemic rural areas poses a new challenge for health services in marginal-urban locations in terms of early detection and treatment of chagasic persons.

## What is new in Chagas treatment?

As of 2010 the first pediatric formula of benznidazol will be available for the treatment of children with Chagas disease. The drug had been discontinued until its production was started in 2012 through a public-private partnership in Argentina composed by the Ministry of Health of Argentina, Mundo Sano and Maprimed companies (in charge of the synthesis of the active principle) and the pharmaceutical laboratory ELEA (in charge of the formula, registration and distribution). This drug is benznidazole, which is considered an "essential drug" by the Pan American Health Organization. Currently, all countries in the Latin America can access the principal Chagas disease treatment through the PAHO Strategic Fund. The announcement was made during an international congress on Chagas held in Cochabamba, Bolivia.

Benznidazole is the main treatment against this disease. The evidence collected points out that the sooner the treatment is started, the better the results obtained, both in its acute phase and chronic phase. It is for this reason that detecting the disease in newborns and young children is a key point.

## A public-private partnership?

This project is conceived as part of a multi-donor initiative, seeking to support current local and national governments efforts for Chagas prevention and treatment in small rural communities of the Gran Chaco region. The Initiative will also contribute to deal with Chagas disease through the design, implementation and evaluation of innovative community-based interventions aimed at increasing the demand for preventive and curative Chagas-related services, based on a sport-based model that has proven to be successful in other contexts . In particular, it is expected that the community-based model sheds some light on how to deal effectively with Chagas disease in marginal urban localities that host migrants from endemic areas.

## What is innovative?

Some of the reasons why people do not get tested for and treat Chagas properly include: (1) limited access to medical facilities; (2) incomplete information about the symptoms and signs of acute Chagas, followed by the disease entering an asymptomatic stage and a person assuming he/she is healthy; (3)

stigma associated with Chagas, particularly due to its association with poverty and poor hygiene; (4) myths about the effectiveness of treatment; (5) drug regimens are difficult to adhere to

Sport can be used as a means to address each of these issues effectively. Outreach to young people through sports has been shown to be an effective medium for increasing knowledge, changing attitudes and behaviors, and increasing uptake of key health services. Most of the evidence that supports this relates to prevention of HIV/AIDS through adoption of healthy sexual behavior, decreases in stigma, uptake of counseling and testing, and adherence to treatment.

We believe that similar outcomes specific to Chagas can be achieved through a sport for development program, particularly in this region. Sport is used as a tool to attract young people and to continue to stimulate their involvement and learning. The presence of Coaches as role models and educators leads to adoption of behaviors related to the learned knowledge. Events can also be used to increase awareness of health services to the entire community and provide services such as screenings on site. The motivating aspects of sports programs and creative use of sport-based communications materials also leads to a wider diffusion of knowledge among both the youth population that participate and throughout the community. Young people become the vehicle through which knowledge and information is shared with the community. In the specific case of this Chagas project there is a particular opportunity to tap into the power of local sports heroes to reach a very large audience with meaningful communications.

### **Why does it make sense to invest in such a project now?**

Since 2009, IDB, Global Network of Sabin Vaccine Institute and Pan-American Health Organization have been working to control and eliminate NTDs in Latin America and the Caribbean. The partnership has developed 5 projects in the region: Chiapas, Mexico; Recife, Brazil; Port au Prince, Haiti; and Georgetown, Guyana. We have experience putting together inter-sectoral innovative pilot/demonstration projects.

Launched on 30 January 2012, the **London Declaration** represents a new, coordinated push to accelerate progress toward eliminating or controlling 10 neglected tropical diseases (NTDs) by the end of the decade. Partners pledge to work together to improve the lives of the 1.4 billion people worldwide affected by NTDs, most of whom are among the world's poorest. This project will contribute to these goals. Mundo Sano and other partners are working to achieve this goal. London declaration:

<http://www.unitingtocombatntds.org/endorsements>

### **How can my organization support this effort?**

We are inviting partners to join these efforts by contributing financial resources and extending the scope and reach of the project. Want to know more, write to [partnerships@iadb.org](mailto:partnerships@iadb.org)