Implementation of local pilot projects in highly endemic areas to scale up access to diagnosis and treatment in Chagas Disease

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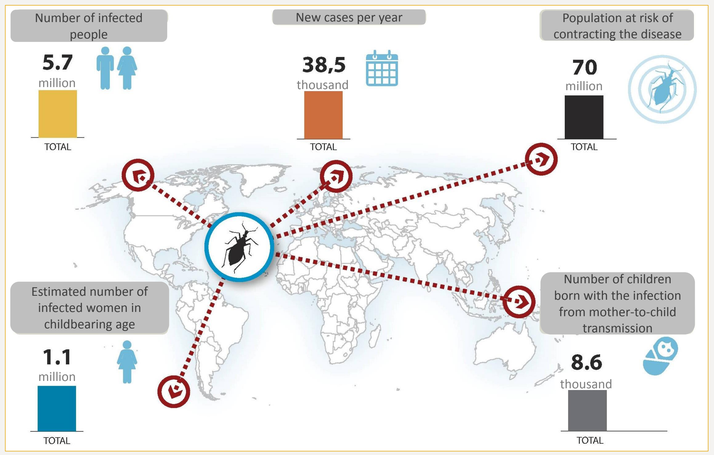
Background

Chagas disease, caused by *Trypanosoma cruzi*, is endemic in 21 Latin American countries and, according to the WHO, approximately 5.7 million people are infected worldwide, 30% of whom will develop a chronic heart condition, and more than 10,000 deaths are estimated to occur annually from the disease.
Chagas is the leading parasitic killer of the Americas and causes the highest disease burden of any parasitic disease in the Western hemisphere. Global migration has resulted in the worldwide spread of infected individuals.
Vector and blood transfusion transmission in Latin America has been reduced, however further attention must be given to diagnosis and treatment, currently estimated to be below 1%. DND*i* proposes to implement local pilot projects in highly endemic areas in order to scale up access to diagnosis and treatment. The objective is to define context-specific health care delivery models through pilot projects in selected countries with diverse epidemiological profiles, engaging local expertise and communities.

Chagas Disease Epidemiological Numbers



Methodology

Morbidity and mortality data were reviewed, along with health policies of Brazil, the Gran Chaco, Colombia, Mexico and USA. Based on partnerships with the Global Chagas Coalition, Ministries of Health, academia, international organizations, and other stakeholders, site-specific collaborative healthcare projects will be designed and implemented, applying available tools, establishing diagnosis and treatment processes, and proposing a referral system. Local communities will be engaged through a health education program to mobilize social support.
Colombia was chosen due to its political willingness and leadership when faced with health issues. DND*i*'s strategy with this project in Colombia is to provide technical and operational support to the country in order to implement models that ensure access to Chagas disease R&D in a sustainable manner; act as a catalyst to strengthen existing local capacities, exchanging expertise; and to implement successful R&D models with alliances and synergistic interactions.

Specific Objectives

- Contribute to the country/context specific access strategies which are also appropriate to other endemic areas in the region;
- Validate DND*i*'s R&D operational partnership model, which aims to improve access to health care;
- Support countries to develop sustainable implementation strategies;
- Translate existing regional expertise and local capacities into hands-on operational activities;

Recommendations and evidence for treatment

World Health Organization advises that all patients should receive treatment regardless of the disease phase

Treatment of adult patients in chronic phase reduces the possibility of developing complications due to the infection, specially cardiac diseases.

Several studies conducted during the last years maintain that treatment should also be offered to patients with asymptomatic infection, and women in childbearing age to prevent congenital chagas.

Recent BENEFIT trial results lead us to conclude that there is an urgent need for early diagnosis and treatment, further studies and efforts on new compounds for Chagas and need to ensure access to treatment for patients under 18 years old, women of childbearing age and acute cases.

Sources: WHO, Chagas disease in Latin America: an epidemiological update based on 2010 estimates. Weekly Epidemiological Record, No. 6, 6 February 2015.
BENEFIT Trial: Morillo CA et al. Randomized trial of benznidazole for chronic Chagas' cardiomyopathy. N Engl J Med 2015 Sep 1.

Expected Results

Based on these evidences, the Drugs for Neglected Diseases *initiative* (DND*i*) is actively mobilizing endemic countries to develop policies and mechanisms to provide and promote access to diagnostic and treatment for neglected populations, by forming working groups with the intention of achieving regional consensus. A Major effort has focused on the decentralization and simplification of processes at primary healthcare level with a focus on operational research. Endemic communities and patients' associations are mobilized to demand appropriate governmental regulation, healthcare promotion and drug registration. There is an effort to update health professionals on the new recommendations for treatment and also to promote scientific publications in order to scale up access. Through operational research, DND*i* expects to support changes in national health policies leading to better healthcare and access to drugs for Chagas disease.

Preliminary Results: Colombia

DND*i* began its intervention in Colombia on the first quarter of 2015. The country has been a priority for the development of the access pillar included in DND*i*'s new business plan.
Positive results and an initial commitment have been achieved in Colombia. Together with the Ministry of Health and local organizations, DND*i* conducted a seminar in April 2015, resulting in clear recommendations and agreed commitments: a roadmap and a pilot Project led by the Colombian health system and supported by DND*i*; the partners also encouraged changes which aim to simplify the diagnostic and therapeutic procedures for Chagas disease in the country.
In the context of the new strategies to be implemented by the Colombian authorities, this project assisted the development of a healthcare roadmap for Chagas, considered as a priority disease by the government, and also supported commercial diagnostic tests validation.

Conclusion

Despite increased evidence of drug efficacy, no consensus on the treatment of Chagas Disease has been reached in endemic countries. DND*i* and local stakeholders will work together to demonstrate the feasibility of scaling up access to diagnosis and treatment for Chagas in those areas. The objective is to evaluate which models are adapted to each context, in order to be replicated in similar settings and improve overall access. Strategies should be developed with the engagement and contribution of all those involved, especially the affected populations.