

Towards control of Chagas disease: the contribution of the new Brazilian consensus

Alberto Novaes Ramos Jr^[1], João Carlos Pinto Dias^[2] and Dalmo Correia^[3]

[1]. Faculdade de Medicina, Universidade Federal do Ceará, Fortaleza, Ceará, Brasil. [2]. Centro de Pesquisa René Rachou, Fundação Oswaldo Cruz, Belo Horizonte, Minas Gerais, Brasil. [3]. Faculdade de Medicina, Universidade Federal do Triângulo Mineiro, Uberaba, Minas Gerais, Brasil.

On behalf of the Brazilian Society of Tropical Medicine (BSTM), we present the *Second Brazilian Consensus on Chagas Disease*, which was developed through intense collaboration among Brazilian experts specialize in different aspects of the disease. In formulating the consensus, these experts partnered with the Ministry of Health (through the Secretariat of Health Surveillance) to strengthen evidence-based control activities in Brazil. Such activities include epidemiological research, management, provision of comprehensive care to people with Chagas disease and their families, communication and education, and clinical/operational research. Indeed, we must ensure that the knowledge amassed by the scientific community contributes effectively to real problem solving related to Chagas disease in our society.

Founded in 1962, the BSTM has maintained, throughout its history, a technical-scientific and political commitment to the health reform movement, as well as an aim to strengthen the Unified Health System (SUS) of Brazil. The strategic role played by the BSTM is based on a boundless respect for democracy and the pillars of the Brazilian constitution, as well as for human rights around the world. The organization is committed to strengthening public and private agencies that address and control tropical, infectious, and parasitic diseases, as well as to respecting the principles of the UHS. Specifically, the BSTM supports studies and research, technical and scientific advice, continuing education, exchanges between institutions, and dissemination of scientific and technological developments.

More than 100 years since the discovery of Chagas disease by Carlos Ribeiro Justiniano Chagas in 1909, there are still important gaps in technical, scientific, and political knowledge that must be filled if we are to effectively treat this widely-neglected condition. In this regard, Brazil plays a central role, and the country has a responsibility to gather scientific evidence that will allow us to face this disease globally. It is for this reason that the BSTM has sought to act in the case of Chagas disease.

The challenges of Chagas disease are magnified further when we consider that, in 2016, more than 90% of those affected by

Chagas disease worldwide did not have access to diagnostic testing or systematic treatment; hence, the high impact of morbidity and the social cost of illness persist. Furthermore, the programmatic and sociopolitical context in which vulnerable individuals find themselves, as reported by Carlos Chagas, makes coping with the disease even more challenging; that is, patients with the disease are often hampered by neglect and exclusion. Generally, the more unequal a society, and the more culturally accepted the inequality, the worse the control of Neglected Tropical Diseases.

On this note, Brazil is recognized worldwide as having extreme economic and social inequality⁽¹⁾. Despite considerable advances in the range of social protections that are guaranteed to the population⁽²⁾⁽³⁾, the current political and economic climate in Brazil warrants careful analysis. It is necessary, now more than ever, to strengthen joint actions within society and focus on the great majority of the Brazilian population, which depends on public services in the sectors of education, health, and social assistance. Furthermore, the situation described above raises concerns about the development of science, technology, and innovation in Brazil⁽⁴⁾⁽⁵⁾.

Beyond these challenges, the next five years will bring opportunities for more concrete, shared actions in the fight against Chagas disease. Brazil and other Latin American countries play a key role in this process and are committed to internationally agreed action under the seals of the Pan American Health Organization (PAHO) and World Health Organization (WHO). These organizations have supported intergovernmental initiatives to combat Chagas disease since 1991. In addition, the constitution of the *International Federation of Associations of People Affected by Chagas Disease* (FINDECHAGAS: <http://www.findechagas.com>) was published in 2010, and various representatives of Brazil and other endemic and non-endemic countries made important contributions to this constitution. Moreover, during the *31st Annual Meeting of Applied Research in Chagas Disease, and the 19th Meeting of Applied Research in Leishmaniasis*, which occurred in Maceió-Alagoas, Brazil, the delegates created the *Brazilian Social Forum to Face Neglected and Infectious Diseases*⁽⁶⁾. Some initiatives stemming from this forum have worked towards instituting an effective and efficient care plan within the health

Correspondence author: Dr. Alberto Novaes Ramos Jr.

e-mail: novaes@ufc.br

Received 30 November 2016

Accepted 05 December 2016

systems. The plan focuses on primary healthcare, and uses a modern approach that integrates the management of Chagas disease with that of other neglected diseases.

With this goal in mind, a historical commitment by the BSTM and its members—in partnership with the Ministry of Health—led to publication of the first edition of the *Brazilian Consensus on Chagas Disease in 2005*⁽⁷⁾. The document has, in many ways, become a significant milestone for the country. Health managers, health professionals, researchers, university professors, undergraduate and graduate students, and society in general have used the consensus as a reference tool for their actions.

However, with the accumulation of new knowledge and experience, it was clear that the document required review, and a major new work was undertaken in preparation for the *Second Brazilian Consensus on Chagas Disease in 2015*⁽⁸⁾. In both editions of the consensus, a responsible process was developed for building a national reference; the process considered the people affected, the government, science, and Brazilian society.

Such an approach aimed to improve disease control, as well as the quality and adequacy of healthcare, and to provide educational tools to raise awareness of Chagas disease. To achieve this objective, the BSTM embarked upon an intense and accurate work to systematize and standardize the diagnostic, treatment, prevention, and control strategies for Chagas disease in Brazil. The work was based on the most current national and international scientific evidence available. While carrying out this research, we searched for and incorporated evidence from beyond the Brazilian context, with a view to the document being used by other countries, regardless of whether Chagas disease is endemic to them. Although we must emphasize at this point that the consensus is not a substitute for clinical judgment.

The composition of the document took into account the current epidemiological situation, as well as evidence-based technical and scientific advances. The consensus was based on the work of Brazilian experts who have dedicated themselves to the study of Chagas disease and who act as national and international references. It was formulated through the collaboration of a multidisciplinary group of physicians and other health professionals, as well as a representative of the social movement of affected persons.

The process of developing the consensus began with the mobilization of experts in the field. These professionals represented the regional diversity of the country and included members of the first consensus team. It was agreed that each group would work on one of the following themes (or set of themes): 1- epidemiology, surveillance, and control; 2- mother-to-child transmission; 3- laboratory diagnosis of *Trypanosoma cruzi* infection; 4- acute Chagas disease, 5- chronic Chagas disease (in its indeterminate, cardiac, digestive, and other less common forms); 6- the specific treatment of the infection. Subsequently, working groups were organized to discuss the available scientific evidence (qualitative and quantitative); the groups also defined grades or classes of recommendations and levels of evidence. To do so, we systematically collected and evaluated the available literature, with a view to applying it in the health system. Nonetheless, one major problem in the field of Chagas disease is the continued tenuousness of available evidence.

In 2015, the 15th National Health Conference (NHC) was held in Brazil; the theme of the NHC was *Quality Public Health to Take Good Care of the People: a Right of the Brazilian People*. The conference provided an excellent basis for progress and achievement in the coming years. For the first time, representatives of the social movement of Chagas disease were present at the NHC; they advanced their agendas, demands, and needs. All the initiatives mentioned above have strengthened the possibility of raising and catalyzing evidence-based discussions and decisions in the technical and political spheres. In this way, progress has been made towards achieving true control of the disease⁽⁶⁾⁽⁹⁾.

We hope that the consensus document will contribute to improvements in clinical practice, prevention, research development, and the planning of public policies directed at health surveillance and control of Chagas disease at all management levels in Brazil. In this way, we expect that both the incidence and mortality of Chagas disease will be reduced. A new revision is scheduled for publication by 2020; this will be based on updated, new, or more robust evidence.

The new consensus was originally published in Brazilian Portuguese⁽¹⁰⁾ using the title *Revista Epidemiologia e Serviços de Saúde* under license from Creative Commons (CC BY-NC for non-commercial use). With a view to expanding access in endemic and non-endemic countries, the Journal of the BSTM produced this English version on the basis of an agreement that involved the BSTM, *Revista Epidemiologia e Serviços de Saúde* the Ministry of Health, PAHO, and WHO. A Spanish version is now under development by PAHO.

REFERENCES

1. Solt F. The Standardized World Income Inequality Database*. *Social Science Quarterly* 2016; 97:1267–1281.
2. Atun R, de Andrade LO, Almeida G, Cotlear D, Dmytraczenko T, Frenz P, et al. Health-system reform and universal health coverage in Latin America. *Lancet* 2015; 385:1230–1247.
3. Guanais F. The combined effects of the expansion of primary health care and conditional cash transfers on infant mortality in Brazil, 1998-2010. *Am J Public Health* 2015; 105:S593–S599.
4. Angelo C. Brazil's scientists battle to escape 20-year funding freeze. *Nature*. 2016; 539:480.
5. Wade L. With Brazil in political crisis, science and the environment are on the chopping block. *Science*. 2016. May 2016; available at: <http://www.10.1126/science.aaf5746>.
6. Carta de Maceió: “A defesa do SUS e o enfrentamento das Doenças Infecciosas e Negligenciadas”. 2016; available at: <http://www.findechagas.com/2016/09/carta-encuentro-brasileiro-de.html>
7. Ministério da Saúde (BR). Secretaria de Vigilância em Saúde. Consenso Brasileiro em Doença de Chagas. *Rev Soc Bras Med Trop* 2005; 38:1-29.
8. Dias JCP, Ramos Jr AN, Gontijo ED, Luquetti A, Shikanai-Yasuda MA, Coura JR, et al. 2nd Brazilian Consensus on Chagas Disease. *Rev Soc Bras Med Trop* 2016; 49:(Suppl 1):3-60.
9. Ramos Jr. AN, Carvalho DM. Doença de Chagas: passado, presente e futuro. *Cad Saude Colet* 2009; 17:787–94.
10. Dias JCP, Ramos Jr. AN, Gontijo ED, Luquetti A, Shikanai-Yasuda MA, Coura JR, et al. II Consenso Brasileiro em Doença de Chagas, 2015. *Epidemiol Serv Saúde*. 2016; 25:7-86.