

New times: tropical medicine for the cities and beyond

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I am honored to be the President of the Brazilian Society of Tropical Medicine at a time that includes two of the most important moments since its foundation: the celebration of its fiftieth anniversary in conjunction with the XVIII Congress of the International Federation of Tropical Medicine and Malariology. Therefore, at this rare opportunity, the time to build the future, to sow it, is now. During this significant occasion, we have the opportunity to accept a new challenge. The challenge to navigate the uncharted seas of the huge emerging drama of urban health in the disfigured Tropics, radically modified by recent biological, social, economic and geopolitical elements. Recently, this important issue, has been discussed under the perspective of the developed world^{1,2}.

Six years ago when I organized the XLII Congress of the Brazilian Society of Tropical Medicine and the I Meeting of Tropical Medicine for Portuguese Speaking Countries in Teresina, I began to think more deeply about Tropical Medicine's true scope. Is it a discipline devoted exclusively to infectious tropical diseases, as is currently assumed? Or should it be loyal to the original Anglo-Saxon notion that Tropical Medicine has a much broader meaning, dedicated to the most important tropical health problems, regardless of etiology^{2,3}. Now, let's try to answer this question from the perspective of the Tropics.

Although Tropical Medicine implies, by definition, the wide range of health problems that threaten near a half of the world's population residing in the Tropics, Tropical Medicine is shrinking. This wonderful medical science which deals with so many fields, from the vastness of the Tropics in its geographical sense, to the so-called neglected diseases, the emerging epidemic diseases, as well as diseases of the "Third World", which have historically affected the poorest people, was trapped in the narrow field of "applied tropical parasitology". However, out of this waning breadth, its near end (to the point that these societies have been called "agonized societies" by some scientists), Tropical Medicine, like the mythical Phoenix, may be being reborn from its own ashes in tropical cities.

In fact, during several decades of the twentieth century, especially after the green revolution created by the discovery of chemical fertilizers, after colonialism in Asia and Africa and the global policies of economic adjustment for indebted developing countries, along with protectionism of the agricultural sector of developed nations, tropical cities were invaded by hordes of extremely poor tropical migrants, who came from family farms, and were chronically exposed to rural endemic diseases⁴. These poor squatters who settled in the worst urban environments, in gigantic and miserable slums, are now

under threat from other dangers, more acute ones, which are probably more brutal. Many of them are unemployed, living without clean water, electricity, sanitation or latrines, occupying vulnerable homes in areas prone to landslides, contamination, swamps, floodplains, or where there is no ground (they live above water), no public safety or health services, and here they are surrounded by crime and violence⁵.

While the importance of diseases typical of the cities is growing, the importance of rural endemic diseases has been progressively decreasing due to the very migrations that led to the emptying of the countryside (for example, only 15% of Latin America's population currently lives in the countryside)⁶. Their importance was also reduced by the changing rural ecology resulting from capitalist exploitation of the countryside, and by the development of new drugs and vaccines. However, to the sadness of humanity, the tropical cities with their mega-slums have emerged as a new environment, one that is explosive and permissive for the emergence of new diseases and the resurgence of others. It is no longer the distant tribes, the lost communities. Right before us, like a Dantesque hell, an unsayable dragon, are miserable slums, where possibly more than half the tropical population lives and over 90% of the population of some of the largest cities in Latin America, Africa and South Asia⁷.

And so, close to us in the Tropics, new diseases from new agents are arising. Not only *Plasmodium*, *Trypanosoma*, *Schistosoma*. They are now joined by *Aedes aegypti*, multi-drug-resistant tuberculosis, HIV, bullets, motorcycles, smoke, chemical products, fires, promiscuity, lack of privacy, dirt, fear. This is the drama of our miserable tropical people. This is the challenge for the Tropical Medicine of the future: to adopt the Tropics in their entirety, from the charm, the importance, and the victories of battles against endemic rural diseases, to face the horror of the slums. Not just the distant adventure of saving children from malaria, but Tropical Medicine for saving children with diarrhea caused by urban dirt and addressing issues such as drugged youths, kidnapped by drug trafficking to become dealers and young corpses, or deformed childhoods, the hidden future, surrounded by HIV and tuberculosis. What is worse, is that they are right in front of us, cravenly abandoned by us, by the State, by the world's intelligentsia and the market's economic priorities.

The Tropical Medicine of the future should expand its scope of action and engage, and eventually prioritize new urban tropical diseases, infectious or otherwise, including and highlighting the external causes, especially diseases linked to the poverty of urban slums, those that are most prominent in the cities of developing countries^{8,9}.

Those who are dedicated to the causes of tropical peoples must recognize in themselves the same spirit as that of their heroes, such as Charles Laveran, Ronald Ross and Carlos Chagas, who went to small towns and rural areas to combat diseases of beings who were abandoned at the end of the world, to now boldly fight against the

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recent and perverse urban drama that presents itself to us, which is near us, roaring at us, breathing over us.

It may seem difficult to propose such a change of focus for a community that has been traditionally devoted to microbes, worms and vectors, from which crucial scientific contributions emerged, as well as decisive debates, and that led to recommendations for tropical infectious diseases. How do you introduce topics such as violence, accidents, safety, sex, pollution, to a community based on traditional infectious culture like our societies? If most of us are not psychologists, urban planners, economists, sociologists, security experts; if we are not surgeons, orthopaedists and physical therapists, how can Tropical Medicine societies devote themselves to these topics, which are so distant from our training, so broad, multidisciplinary. Is it possible?

I believe so, and I think it might not be that difficult. And I argue this point due to the characteristics of Tropical Medicine, which has already dedicated itself to urban tropical diseases such as HIV/AIDS, dengue, leptospirosis, tuberculosis, filariasis and kala-azar, and to special populations such as refugees and vulnerable indigenous populations, and to non-infectious diseases such as sickle cell disease, pemphigus foliaceus, endomyocardial fibrosis and maternal mortality.

The societies of Tropical Medicine have also dedicated themselves to diseases with external causes such as animal bites and stings, malnutrition, and broad themes, such as housing, deforestation, dam construction and their relationship to the emergence of infectious diseases, and the effects of violence on populations displaced by wars. Therefore, it will not be such a big jump to broaden the focus and also look at the causes of urban diseases that occur mainly in the tropics, such as the lack of basic sanitation, urban violence, drug trafficking, pollution, motorcycle accidents, depression and fear.

However, if it is to make this jump successfully, Tropical Medicine needs to do more. Firstly, we need to make it clear that Tropical Medicine is not a medical specialty dedicated solely to tropical infections. Tropical Medicine is much more. It is, instead, a concept, or a branch of science, a discipline that is dedicated to the largest vulnerable share of the world population, since the Tropics include an area that is home to 40% of the world's population (a figure that is expected to reach 60% by 2050 [<http://en.wikipedia.org/wiki/Tropics>]), and it devotes special attention to those health problems that require more scientific research and attention. This is a crucial concept: to broaden and deepen the actions of the Tropical Medicine community.

However, to handle such complex, multidisciplinary and intensive health problems and their causes, we must go further. We must attract scientists and health professionals with academic backgrounds that are different from our biomedical training, as illustrated by Rosinha Dias, the social worker who helped her husband to find smart solutions for the transmission of Chagas disease, a health problem deeply associated with economic, social, cultural and ecological factors.

Yes, it is possible. If Tropical Medicine societies are able to broaden the range of issues in their journals and media, if they promote meetings and conferences on tropical urban health problems, such as the health of the slums, if they aggregate non-infectious themes on the agenda of their meetings, and if they invite scientists from many other disciplines related to tropical urban health, infectious disease specialists or otherwise, they will re-emerge powerful in this challenge, from a branch of science that is so charming, beautiful and complex.

In this way, Tropical Medicine can once more become the great



A police helicopter flies over the Rocinha slum during a police operation in Rio de Janeiro, Monday, June 2, 2008. Thousands of killings by Brazilian police are going largely unpunished because of public approval for a perceived crackdown on crime, according to ONU envoy Philip Alston. Clashes with police killed a record 1,260 civilians in State of Rio de Janeiro last year, according to Brazil's Institute of Public Safety.

Photograph and figure explanation from the website: http://www.boston.com/bigpicture/2008/08/scenes_from_rio_de_janeiro.html (AP Photo/Ricardo Moraes)

mother of Medicine in the Tropics, a major inductor of tropical health, able to fight for the interests of tropical peoples. If we do this, we ourselves, the present members of Tropical Medicine of today, will lead this difficult fight, this challenge for the future. And more importantly, it will be an attitude beyond the scope of science, which resides in the realm of the best that human beings possess, which is love of thy neighbor.

TITLE IN PORTUGUESE

Novos tempos: a medicina tropical para as cidades e mais além

CONFLICT OF INTEREST

The author declares that there is no conflict of interests.

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