



WORLD HEALTH ORGANIZATION

FIFTY-FIFTH WORLD HEALTH ASSEMBLY
Provisional agenda item 13.17

A55/22
30 April 2002

Pan African tsetse and trypanosomiasis eradication campaign

Report by the Secretariat

1. As requested by the Executive Board at its 109th session,¹ an item entitled Pan African Tsetse and Trypanosomiasis Eradication Campaign was included on the provisional agenda of the Fifty-fifth World Health Assembly. However, given the progress made towards the control of American trypanosomiasis,² and the potential lessons for the African trypanosomiasis eradication campaign, this report has been extended to cover more generally the **control of trypanosomiasis**.

AFRICAN TRYPANOSOMIASIS

2. Tsetse flies and the trypanosomes they transmit severely harm human and livestock health, causing serious economic losses and significantly constraining socioeconomic development in Africa.

3. Trypanosomiasis is a daily threat to more than 60 million men, women and children in 37 countries in sub-Saharan Africa, 22 of which are among the least developed countries in the world. However, disease surveillance currently covers only 3-4 million of these people and the 45 000 cases reported in 1999 do not reflect reality: an estimated 300 000-500 000 cases.

4. African human trypanosomiasis is caused by the protozoan parasites *Trypanosoma brucei gambiense* and *Trypanosoma brucei rhodesiense*, transmitted through the bite of tsetse flies. In infected people, the trypanosomes multiply in the blood and lymph glands, later crossing the blood-brain barrier to invade the central nervous system where they provoke major neurological disorders. Both detection of infection and subsequent patient care require well trained staff, sophisticated technical resources, drugs and well equipped health centres. Most cases, however, occur in remote rural areas with little or no access to health services. Without treatment, the disease is invariably fatal. Three drugs (pentamidine, melarsoprol and eflornithine) can be used to treat trypanosomiasis successfully, but access to them is limited and treatment courses are long, difficult and not without side-effects, some of them serious.

¹ See document EB109/2002/REC/2, summary record of the tenth meeting, section 3.

² See *Control of Chagas Disease* (2nd report of the WHO Expert Committee on Chagas Disease, Brasilia, 20-28 November 2000), WHO Technical Report Series No. 905, Geneva, WHO, 2002.

5. Responses from Member States and joint undertakings by various international organizations, including FAO, WHO, IAEA and OAU, contributed to a significant decline in the disease burden until the 1960s, but the past 40 years has seen a significant resurgence in the number of cases, due in part to neglect, political instability and armed conflicts, which have hampered the establishment and maintenance of control initiatives.

6. The International Scientific Council for Trypanosomiasis Research and Control was established in 1949 to promote research and control of both human and animal trypanosomiasis. WHO has a seat on the committee of the Council. In 1983, the Thirty-sixth World Health Assembly adopted resolution WHA36.31 requesting WHO, *inter alia*, to strengthen support for control of African human trypanosomiasis.

7. The Programme against African Trypanosomiasis, established in 1995, is a joint project of WHO, FAO, IAEA and OAU/Interafrican Bureau for Animal Resources to support Member States in trypanosomiasis-endemic areas to reinforce surveillance and control of human and animal trypanosomiasis. These efforts were reinforced in a resolution adopted by the Fiftieth World Health Assembly (resolution WHA50.36) in 1997.

8. The Pan African Trypanosomiasis and Tsetse Eradication Campaign (PATTEC) was established in Lomé during the OAU summit of Heads of State and Government in July 2000. The main role of PATTEC is to promote at the highest political level control of trypanosomiasis, and the Campaign represents a strong, pan-African commitment to the fight against the disease.

9. In 2001, FAO adopted a resolution (4/2001) requesting support for African Member States and the PATTEC initiative in efforts to combat effectively human and animal trypanosomiasis and their vectors. The same year, IAEA adopted a resolution (GC(45)/RES/12) welcoming the Plan of Action of OAU for the eradication of tsetse flies from Africa, and calling upon Member States to provide technical, financial and material support to African States in their efforts to eradicate tsetse flies.

10. At the technical level, PATTEC is mainly involved in preparing a large vector-control campaign with the aim of creating tsetse-free areas. Within the framework of the Programme, WHO is responsible for research on and surveillance and control of human trypanosomiasis. Reducing the human reservoir of trypanosomes in parallel with the reduction and eventual elimination of the vector is critical, but cannot be done without strengthening disease surveillance, providing treatment and developing new drugs to replace those that are becoming less effective through development of resistance in the trypanosome. Significant partnerships between WHO and partners, including the private sector, support these goals.

11. WHO is facilitating the formation of a global alliance to support and strengthen existing efforts to build a sustainable programme to reduce the human morbidity and mortality associated with trypanosomiasis and to create conditions for the elimination of the disease.

AMERICAN TRYPANOSOMIASIS

12. Chagas disease, or American trypanosomiasis, an endemic parasitic disease found only in the Region of the Americas, is caused by the protozoon *Trypanosoma cruzi*, and transmitted directly by triatomine Hemiptera, through blood transfusions from infected donors, congenitally to the fetus through the placenta of infected mothers, or other less frequent modes.

13. About 30 million are at risk of infection with *Trypanosoma cruzi* in 23 endemic countries in the Americas. The infection often leads to myocardial damage with cardiac dilatation, arrhythmias and conduction abnormalities (closely linked with sudden death). It can also produce digestive damage, mainly megaviscera in the form of megaoesophagus, megacolon or both.

14. In terms of the disease burden, Chagas disease accounts for about 680 000 disability-adjusted life years lost, a figure which represents a considerable social and economic impact in Latin America.

15. Joint actions or initiatives by subregional groups of national control programmes during the 1990s have offered real hope of controlling and eliminating the transmission of *Trypanosoma cruzi* through national activities with a regional epidemiological impact.

Subregional initiatives and their results

16. In 1991, the third meeting of the Southern Cone Initiative in Brasília established the Intergovernmental Commission of the Southern Cone Initiative for the Elimination of *Triatoma infestans* and Interruption of the Transfusion Transmission of American Trypanosomiasis. The Commission is comprised of health ministry representatives from Argentina, Bolivia, Brazil, Chile, Paraguay and Uruguay. Its control activities have been coordinated, mutually supported, and jointly evaluated and certified; the results are shown in the table. There have been significant improvements in the coverage and impact of control measures in Bolivia and Paraguay.

CERTIFICATION OF THE INTERRUPTION OF VECTOR-BORNE AND TRANSFUSION TRANSMISSION OF *TRYPANOSOMA CRUZI* IN THE REGION OF THE AMERICAS

| Year | Country | Certified interrupted transmission of <i>T. cruzi</i> |
|------|-----------|---|
| 1997 | Uruguay | Vector-borne and transfusion |
| 1999 | Chile | Vector-borne |
| 2000 | Brazil | Vector-borne transmission ¹ in most endemic areas |
| 2001 | Argentina | Vector-borne transmission in four provinces: Jujuy, La Pampa, Neuquen and Río Negro |

17. The Intergovernmental Commission of the Central American Initiative for the Interruption of Vector-borne Transmission of Chagas Disease caused by *Rhodnius prolixus*, Reduction of Domiciliary Infestations of *Triatoma dimidiata*, and Elimination of Transfusion Transmission of *Trypanosoma cruzi* was created in 1997 by resolution 13 of the XIII special meeting of the health sector of Central America (RESSCA). To date, four project meetings have been held (Guatemala, 1998; Managua, 1999; San Salvador, 2000; and Panama, 2001) to monitor the situation and plan future actions. All the countries that are members of this subregional initiative - Belize, Costa Rica, El Salvador, Guatemala,

¹ Due to *Triatoma infestans*.

Honduras and Panama - have made some progress in implementation and coverage and quality of their vector control and blood safety measures.

18. The Andean Initiative is the third subregional initiative. Covering Colombia, Ecuador, Peru and Venezuela, it has engaged in coordination efforts. Activities to combat the disease in this part of the region are being formulated.

19. There are also significant endemic areas in other subregions where Chagas disease is a public health problem (e.g. the Amazon Basin and Mexico). This situation poses new methodological and strategic challenges for surveillance, prevention and control.

ACTION BY THE HEALTH ASSEMBLY

20. The Health Assembly is invited to note this report.

= = =