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Disease prevention and control

Control of tropical diseases: Chagas disease and leprosy

Report by the Director-General

Chagas disease is the world's third tropical disease burden after malaria and schistosomiasis. In 1991 the Ministers of Health of Argentina, Bolivia, Brazil, Chile, Paraguay and Uruguay launched the "Southern Cone Initiative for elimination of transmission of Chagas disease". Progress towards elimination has been documented by reports from the national control programmes of Argentina, Brazil, Chile and Uruguay. Attainment of the target will reduce the incidence of the disease in the whole of Latin America by more than 70%. In 1997 the initiatives of the Andean countries and the Central American countries were launched, and it is expected that elimination of transmission of Chagas disease will be reached in their territories by 2010.

In May 1991 the Health Assembly in resolution WHA44.9 set a target of prevalence below one case per 10 000 population for the global elimination of leprosy as a public health problem by the year 2000. This resolution has helped stimulate significant progress throughout the world and has increased programme coverage and implementation of multidrug therapy, resulting in a 76% reduction in the global prevalence since 1990. The number of endemic countries has been reduced from 122 in 1985 to 55 at the beginning of 1997. New initiatives have been implemented through leprosy elimination campaigns and special action projects to reach patients not yet detected and treated.

The Executive Board is invited to take note of the report and to consider the two draft resolutions attached.

CHAGAS DISEASE

1. Chagas disease, named after the Brazilian physician Carlos Chagas who first described it in 1909, exists only on the American continent. It is caused by a parasite, *Trypanosoma cruzi*, transmitted to humans by triatomine insects. The geographical distribution of the human *T. cruzi* infection extends from Mexico to the south of Argentina. The disease affects 16-18 million people, and some 100 million, i.e. about 25% of the population of Latin America, is at risk of acquiring Chagas disease. After an asymptomatic period of several years following the acute stage, those infected develop cardiac symptoms which may lead to sudden death and digestive damage, mainly megaviscera.

2. Chagas disease is directly related to poverty: the blood-sucking triatomine bug which transmits the parasite finds a favourable habitat in crevices in the walls and roofs of poor houses in rural areas and in the peripheral urban slums.

3. The rural/urban migration that occurred in Latin America in the 1970s and 1980s changed the traditional epidemiological pattern of Chagas disease and transformed it into an urban infection that can be transmitted by blood transfusion. The figures of infection of blood in blood banks in some selected cities of the continent vary between 3% and 53%, showing that the prevalence of *T. cruzi*-infected blood is 10 to 20 times higher than that of HIV infection and hepatitis B and C.

4. From a global perspective, Chagas disease represents the third largest tropical disease burden after malaria and schistosomiasis. The economic loss for the continent due to early mortality and disability currently amounts to US$ 8200 million a year.

5. **Southern Cone Initiative:** In 1991, the Ministers of Health of Argentina, Bolivia, Brazil, Chile, Paraguay and Uruguay, launched the "Southern Cone Initiative for elimination of transmission of Chagas disease". The main vector is *Triatoma infestans*, a domiciliated triatomine. The progress towards elimination of transmission of Chagas disease by vectors and through blood transfusion in Uruguay, Chile, Argentina and Brazil has been documented (WHO, Weekly Epidemiological Record, Geneva, 6:38-40, 1994; 3:13-16, 1995; 2:12-15, 1996; 1:1/2-1, 1997). Current data on disinsecting of houses, screening in blood banks and serology in children and young adults indicate that the interruption of the transmission of Chagas disease by vectors and through blood transfusion will be achieved in Uruguay and Chile in 2000, Brazil and Argentina in 2003 (see Figures 1 and 2).

6. Control activities are progressing as scheduled in other countries of this Initiative such as Bolivia and Paraguay, but at this stage there are no entomological or epidemiological data available to assess the impact of the control programmes in these two countries and to estimate a date for achievement of interruption of transmission. Peru joined in March 1997 as the southern area of this country is also infested by *T. infestans*.

7. **Initiative of the Andean countries**: In the Andean countries, Colombia, Ecuador, Peru and Venezuela, progress in blood bank control is proceeding well and all of them have issued legislation. The elimination of the transmission by vectors was launched at an intergovernment meeting held in Bogotá in February 1997 where detailed country plans of action were prepared.

8. **Initiative of the Central American countries**: In the central American countries, Costa Rica, El Salvador, Guatemala, Honduras, Mexico, Nicaragua, and Panama, progress in blood bank control is also proceeding well and all of them except one have issued legislation for compulsory blood screening against blood infected by *T. cruzi*. Similarly, the elimination of the transmission by vectors was launched at an intergovernment meeting held in Tegucigalpa in October 1997.

FIGURE 1

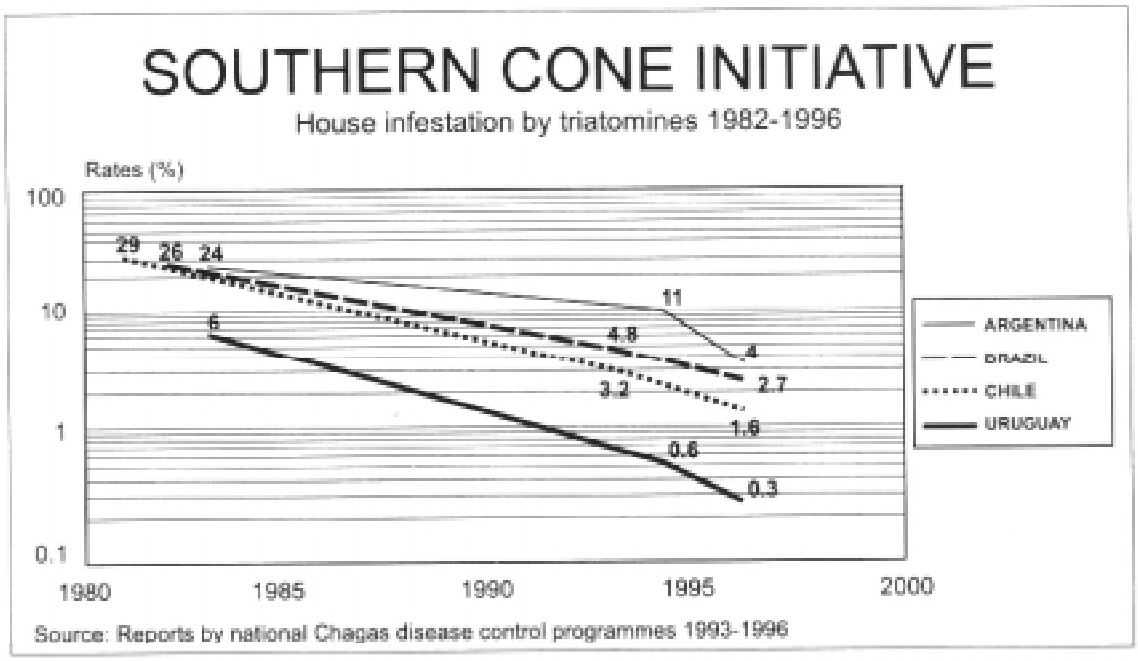
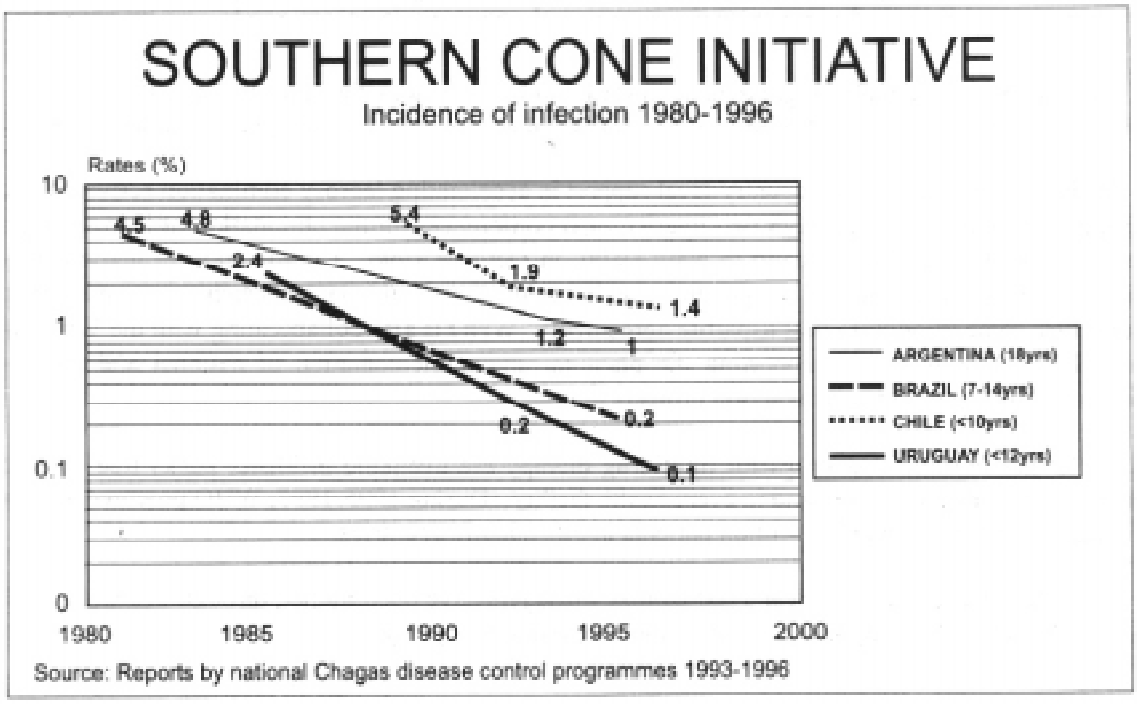


FIGURE 2



LEPROSY

9. Health Assembly resolution WHA44.9 has generated substantial political commitment from leprosy-endemic countries to attain the target and has facilitated increased support from the international donor community, and encouraged the development of strategies and timed action plans at country, regional and global levels. There has been a 76% reduction in the number of registered cases (as shown in Table 1) and improvement in programme coverage as shown by the increased number of cases detected; the cumulative number of individuals cured reaching 8.4 million by the beginning of 1997.

10. The leprosy elimination advisory group which was established in 1994 plays an important role in overseeing the programme and its strategy, with increasing participation of nongovernmental organizations.

TABLE 1. REGISTERED LEPROSY CASES IN 1990 AND 1997, AND NEW CASES DETECTED IN 1996, BY WHO REGION

WHO region	Registered cases 1990		Registered cases 1997		New cases 1996	
	Number	Rate per 10 000	Number	Rate per 10 000	Number	Rate per 100 000
Africa	482 669	9.20	82 758	1.39	46 489	7.80
Americas	301 704	4.20	127 866	1.63	43 783	5.59
South-East Asia	2 693 104	20.50	637 413	4.50	457 921	32.36
Europe	7 246	0.10	732	0.10	37	-
Eastern Mediterranean	99 913	2.60	13 038	0.16	5 761	1.25
Western Pacific	152 739	1.00	26 533	0.01	12 613	0.77
Total	3 737 375	7.10	888 340	1.54	566 604	9.84

11. Despite the considerable progress made towards elimination, activities must be intensified in some major endemic countries and in parts of others to give sufficient access to and coverage of multidrug therapy.

12. WHO continues to provide country-level support in accelerating leprosy elimination activities. Political commitment was promoted through two international conferences on the elimination of leprosy, the first in Hanoi, in July 1994, and the second in New Delhi, in October 1996. Coordination of activities between ministries of health, international nongovernmental organizations and WHO is steadily improving in most of the countries, some through formal tripartite agreements. WHO is also collaborating with the World Bank in India and Bangladesh and is supporting the planning and implementation of national and local leprosy elimination campaigns and special action projects.

13. WHO has ensured that drugs for multidrug therapy are available in blister packs free of cost in all countries where they are needed, and in every health facility. During 1995-1997, WHO procured and supplied such drugs to treat more than 2.3 million patients in 52 endemic countries.

14. Over the past seven years over 2200 leprosy managers have been trained through 110 workshops in 22 countries; WHO is also supporting health systems research in leprosy.

15. A special leprosy elimination monitoring initiative, launched in 1996, has provided valuable detailed information on programme performance, including drug logistics. A geographical information system (GIS) on leprosy has also been developed.

16. WHO continues to promote the prevention and management of disabilities and community-based rehabilitation as part of leprosy programmes. Manuals on disability prevention and essential surgery in leprosy have been produced and disseminated.

17. Support for research, including basic research on *Mycobacterium leprae*, on diagnostic tools for early detection, and on primary prevention, as well as studies on leprosy reactions and nerve damage, continues in order to improve treatment of leprosy. The studies are coordinated through steering committees on chemotherapy and immunology under the Special Programme for Research and Training in Tropical Diseases.

18. An accelerated plan for elimination by the year 2000 has been developed to detect and treat with multidrug therapy an estimated 2 million cases. This is possible once the necessary resources are mobilized, provided that the urgency of leprosy elimination is fully recognized and all interested parties work together. The plan includes the leprosy elimination campaigns and special action projects, in addition to measures for all peripheral health facilities to give multidrug therapy free of cost.

19. The special initiative for leprosy elimination campaigns aims to detect cases in people who are not reporting to health services because of social stigma, poor accessibility, and/or lack of knowledge of the disease and its curability; to create community awareness, enabling the local health services to diagnose and treat patients; and to reach underserved groups, such as refugees and nomads, through innovative approaches to detect and treat cases in time.

ACTION BY THE EXECUTIVE BOARD

20. The Executive Board may wish to consider the following draft resolutions on Chagas disease and leprosy:

Elimination of transmission of Chagas disease

The Executive Board,

Having considered the report of the Director-General on the advances made in the elimination of transmission of Chagas disease in Latin America,

RECOMMENDS to the Fifty-first World Health Assembly the adoption of the following resolution:

The Fifty-first World Health Assembly,

Encouraged by the considerable progress achieved in many countries such as Argentina, Brazil, Chile and Uruguay towards elimination of Chagas disease;

Recognizing the support to national control activities provided by the national authorities;

Acknowledging the decision taken at recent subregional meetings of Ministers of Health of the Andean Region and Central America, in Bogotá, Colombia and in Tegucigalpa, Honduras, to launch initiatives in several countries to achieve the elimination of transmission in the above subregions;

Aware that the countries in question have set national goals to ensure the interruption of transmission by the year 2010,

1. EXPRESSES its satisfaction with the progress made by Member States in eliminating the transmission of Chagas disease;

2. DECLARES its commitment to the goal of elimination by the end of 2010 as technically feasible given appropriate political, technical and economic support;

3. ENDORSES a combined strategy of house disinfestation and blood-bank screening of *Trypanosoma cruzi*-infected blood, active surveillance, health education and community mobilization;

4. CALLS ON all Member States still affected by Chagas disease to determine the full extent of the disease and to elaborate plans of action; establish intercountry technical commissions to initiate certification of elimination; coordinate the contributions of the international community, including multilateral and bilateral agencies and nongovernmental organizations; and explore possibilities for mobilizing additional resources to eliminate the disease within the context of primary health care;

5. INVITES donors, including bilateral and international development agencies, nongovernmental organizations, foundations and appropriate regional organizations, to help to ensure that funds are available to accelerate and sustain countries' efforts to eliminate the disease;

6. URGES the Director-General:

(1) to support efforts to eliminate transmission by the year 2010 and to provide WHO certification of elimination country by country;

(2) to support Member States in surveillance, programme development and implementation;

(3) to continue to seek extrabudgetary resources for this purpose;

(4) to keep the Executive Board and the Health Assembly informed of progress.

Elimination of leprosy as a public health problem

The Executive Board,

Having considered the report of the Director-General on the elimination of leprosy as a public health problem,

RECOMMENDS to the Fifty-first World Health Assembly the adoption of the following resolution:

The Fifty-first World Health Assembly,

Recalling resolution WHA44.9 and earlier resolutions of the Health Assembly and the Executive Board on leprosy,

Noting with satisfaction the progress made so far towards eliminating leprosy as a public health problem through the widespread implementation of multidrug therapy together with intensified case-finding activities,

Recognizing the need to intensify antileprosy activities, particularly in countries with a high rate of prevalence, in order to reach the goal of elimination of leprosy as a public health problem by the year 2000,

1. URGES Member States:

(1) to recognize the excellent opportunity to eliminate leprosy as a public health problem;

(2) to intensify their efforts to reach remaining patients through accelerated plans, including national leprosy elimination campaigns, special initiatives to detect and treat patients in underserved communities, and by making multidrug therapy available in all peripheral health facilities;

2. REQUESTS the Director-General:

(1) to continue to strengthen technical support to Member States in order to reach the goal of elimination of leprosy through treatment of patients with multidrug therapy, together with case-finding activities;

(2) to continue to mobilize and coordinate technical and additional financial resources for sustainable efforts to eliminate leprosy;

(3) to strengthen further collaboration with national and international nongovernmental organizations in order to ensure the attainment of the goal of elimination of leprosy as a public health problem;

(4) to keep the Executive Board and the Health Assembly informed of progress.

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