
Neglected tropical diseases

Prevention, control, elimination and eradication

Report by the Secretariat

1. Despite their medical diversity, neglected tropical diseases form a group characterized by their association with poverty and their proliferation in tropical environments where multiple infections in a single individual are common. The 17 neglected tropical diseases covered by WHO are caused by a variety of pathogens: viruses (dengue and rabies), bacteria (Buruli ulcer, leprosy, trachoma and yaws), protozoa (Chagas disease, human African trypanosomiasis and leishmaniasis) and helminths (cysticercosis, dracunculiasis, echinococcosis, foodborne trematodiasis, lymphatic filariasis, onchocerciasis, schistosomiasis and soil-transmitted helminthiasis).

2. The goals of national programmes for the control of neglected tropical diseases are: to reduce human suffering (morbidity, mortality and stigmatization) and, through improvement in socioeconomic status, to reduce the conditions that exacerbate poverty; and to highlight the public health importance of these diseases in affected communities. The targets should be at a level at which the cost and resources for continued control measures are affordable and sustainable. Wherever possible, permanent interruption of transmission of neglected tropical diseases will be the ultimate goal.

3. In 2011, WHO and its Strategic and Technical Advisory Group for Neglected Tropical Diseases drew up the roadmap to accelerate work on neglected tropical diseases,¹ with targets for the eradication of dracunculiasis (2015) and yaws (2020). Furthermore, six targets are set for the elimination of five neglected tropical diseases by 2015 and a further 10 elimination targets are set for 2020 either globally or in selected geographical areas for nine neglected tropical diseases. The roadmap also sets out targets for intensified control of dengue, Buruli ulcer, cutaneous leishmaniasis, selected zoonoses and helminthiasis.

4. Five public-health interventions are recommended in the roadmap to accelerate the work on prevention, control, elimination, and eradication of neglected tropical diseases: preventive chemotherapy;² intensified case-management; effective vector control; the provision of safe

¹ *Accelerating work to overcome the global impact of neglected tropical diseases: a roadmap for implementation.* Geneva, World Health Organization, 2012 (document WHO/HTM/NTD/2012.1).

² In the context of neglected tropical diseases, preventive chemotherapy is defined as a public health intervention that allows the regular and coordinated administration of quality-assured, safe, single-dose medicines on a large scale for the prevention and control of the following diseases: foodborne trematodiasis, lymphatic filariasis, onchocerciasis, schistosomiasis, soil-transmitted helminthiasis and trachoma.

drinking-water, basic sanitation and hygiene; and involvement of veterinary public health. Although one approach may predominate for the control of a specific disease or group of diseases, evidence suggests that more effective control results when several approaches are combined and delivered locally.

5. In January 2012, following the publication of WHO's roadmap, a community of partners endorsed the London Declaration on Neglected Tropical Diseases.¹ Participants at the meeting – heads of global health organizations, donors, politicians and pharmaceutical industry leaders – committed themselves inter alia, to do their part: (a) to sustain, expand and extend programmes that ensure the necessary supply of medicines and other interventions; (b) to advance research and development through partnerships and provision of funding to find next-generation treatments and interventions; (c) to enhance collaboration and coordination at national and international levels; (d) to enable adequate funding with countries endemic for the neglected tropical diseases to implement programmes necessary to achieve these goals, supported by strong and committed health systems at the national level; and (e) to provide technical support, tools and resources to countries endemic for these diseases to evaluate and monitor those programmes.

6. As both the WHO's roadmap and the London declaration make clear, prevention and control of neglected tropical diseases form an integral part of universal health coverage, which prioritizes the public health needs of poor people and delivers interventions through appropriate technology at sustainable cost. Universal coverage for prevention and control interventions against neglected tropical diseases depends critically on the existence of stronger, more efficient health systems, access to essential medicines of assured quality at affordable prices, and a well-trained and motivated work force, as well as the involvement of other sectors including finance, education, agriculture and livestock, water supply, environment and management.

7. During the Sixty-fifth World Health Assembly a technical briefing on neglected tropical diseases, chaired by the Assembly's President, highlighted the relevance and priority that communities endemic for those diseases give to their prevention, control, elimination and eradication. Member States participating in this briefing called for a draft resolution on neglected tropical diseases to be submitted to the Sixty-sixth World Health Assembly for consideration.

BACKGROUND

8. In general, approaches to overcoming what are now termed neglected tropical diseases remained disease specific until 2005, when WHO and its partners analysed the evidence and best practices and recommended at a strategic and technical meeting (Berlin, 18–20 April 2005) that a common, integrated approach be used for their prevention and control.² WHO has accumulated evidence to show that the burden caused by many of these diseases, which affect more than 1000 million people worldwide, can be effectively controlled and, in some cases, the diseases can be eliminated or eradicated.

¹ *London Declaration on Neglected Tropical Diseases*. London, 30 January 2012 (available at: http://search.who.int/search?q=london+declaration&ie=utf8&site=default_collection&client=_en&proxystylesheet=_en&output=xml_no_dtd&oe=utf8; accessed 22 October 2012).

² Document WHO/CDS/NTD/2006.1.

9. The meeting of WHO's global partners on neglected tropical diseases two years later¹ marked a turning point, resulting in increased commitment and engagement from Member States in which these diseases were endemic and the pharmaceutical industry, and in expanded collaboration among partners. As a consequence, countries endemic for neglected tropical diseases and their partners have been enabled to increase steadily access to and coverage with treatment programmes mostly using essential medicines donated on a large scale.

10. WHO published its first report on neglected tropical diseases in 2010,² highlighting their adverse impacts on health and the successes of Member States through collaboration with the private sector and other partners. These initial successes have led to increased donations of essential medicines by industry, enabling countries to scale up interventions.

11. Since 2007, countries endemic for these diseases have, with assistance from their partners, increased access to and coverage with interventions. For example, during 2010, 710 million people worldwide received preventive anthelmintic chemotherapy;³ successful programmes jointly coordinated by human and animal health services have eliminated human rabies of canine origin in several countries; and the number of reported cases of human African trypanosomiasis has decreased continuously since 2000 to less than 7000 in 2011. Major progress is being made towards eradication of dracunculiasis.

CHALLENGES IN SUSTAINING THE DRIVE TO OVERCOME THE GLOBAL IMPACT OF NEGLECTED TROPICAL DISEASES

12. Despite achievements and successes, challenges remain – as in all public health endeavours. Notwithstanding global economic constraints, provision of support from Member States and partners will need to be sustained in order to ensure the development of new products for prevention, diagnosis and control, continued expansion of services, and strengthening of the health systems needed to overcome neglected tropical diseases.

13. Expertise in prevention and control of individual neglected tropical diseases and management of their vectors is lacking or weak in some countries and will have to be created or strengthened if the targets set by the World Health Assembly in many resolutions over the years (Annex) are to be met. National neglected tropical disease programmes must be strengthened, maintained and mandated with clearly defined responsibilities in order to coordinate essential functions such as situation analysis, strategic planning, budgeting, prevention, diagnosis, treatment, surveillance, capacity development, and supervision of operations at all levels of the national system.

14. The expansion of preventive chemotherapy interventions to achieve adequate coverage implies the regular treatment of hundreds of millions of people. However, the availability of adequate quantities of essential medicines is sometimes hindered or delayed by issues of transportation, customs clearance, storage and other important steps in the supply chain.

¹ Document WHO/CDS/NTD/2007.4.

² Document WHO/HTM/NTD/2010.1.

³ Preventive chemotherapy means large-scale preventive treatment against helminthiases and trachoma with safe, single-dose, quality-assured medicines.

15. More information is required to estimate the actual cost of expanding implementation activities, with better costing of interventions for each disease in relation to the targets in WHO's roadmap. This information will help governments, donors and partners to decide how best their contributions can finance expansion of interventions.

16. The following actions are essential for maintaining the progress already made and further reducing the global impact of neglected tropical diseases:

- (a) to prioritize prevention, control, elimination and eradication of neglected tropical diseases in national health, political and development agendas
- (b) to sustain the development and updating of evidence-based norms, standards, policies, guidelines and strategies for prevention, control and elimination of neglected tropical diseases
- (c) to collect additional information on the costing of interventions and of the socioeconomic impact of neglected tropical diseases
- (d) to collaborate with partners in areas such as resource mobilization and programmatic management in order to implement interventions to prevent and control neglected tropical diseases
- (e) to ensure predictable, long-term financing for sustained interventions against neglected tropical diseases
- (f) to build national capacity to implement preventive chemotherapy interventions, expand those interventions nationwide and maintain a national coverage of at least 75% of the populations in need, for as long as necessary to reach the targets in the WHO's roadmap for work to overcome the global impact of lymphatic filariasis, onchocerciasis, schistosomiasis, soil-transmitted helminthiases, and blinding trachoma
- (g) to review programmatic progress in the preparation of strategic and operational plans for maintaining universal access (through strengthened health systems) to and coverage with interventions against neglected tropical diseases
- (h) to intensify national control activities, harmonize strategies and control methods, and ensure access to the safest and most efficient tools in order to maintain technical capacities at national level, including the capabilities for forecasting needs, managing supply chains, monitoring and evaluation of the impact of national programmes, and surveillance
- (i) to encourage and support initiatives for the discovery and development of new diagnostics, medicines and pesticides, and to foster innovative research on interventions against neglected tropical diseases
- (j) to improve coordination with related sectors such as veterinary public health and safe drinking-water and sanitation, which play a critical role in prevention, control, elimination and eradication of neglected tropical diseases.

ACTION BY THE EXECUTIVE BOARD

17. The Board is invited to consider the following draft resolution:

The Executive Board,

Having considered the report on neglected tropical diseases,¹

RECOMMENDS to the Sixty-sixth World Health Assembly the adoption of the following resolution:

The Sixty-sixth World Health Assembly,

PP1 Having considered the report on neglected tropical diseases, and recalling the previous World Health Assembly resolutions listed therein;

PP2 Recognizing that increased national and international investments in prevention and control of neglected tropical diseases have succeeded in improving health and social well-being in many countries;

PP3 Noting the WHO's roadmap to accelerate the work to overcome the global impact of neglected tropical diseases and the subsequent London Declaration on Neglected Tropical Diseases endorsed by a community of partners;²

PP4 Acknowledging that expansion of activities to prevent and control neglected tropical diseases will need adequately-resourced national programmes functioning within effective health, education and other sectors in order to provide for an uninterrupted supply and delivery of quality-assured commodities and services;

PP5 Realizing that current approaches to prevention and control of neglected tropical diseases, when implemented in an integrated manner, are highly effective and contribute to stronger health systems and the achievement of health-related Millennium Development Goals;

PP6 Appreciating the generous contribution of pharmaceutical companies in donating sufficient quantities of quality-assured essential medicines for the prevention and treatment of neglected tropical diseases;

PP7 Recognizing the contribution of bodies in the United Nations system, intergovernmental and nongovernmental organizations, academic institutions and civil society;

¹ Document EB132/19.

² Respectively, *Accelerating work to overcome the global impact of neglected tropical diseases: a roadmap for implementation*. Geneva, World Health Organization, 2012 (document WHO/HTM/NTD/2012.1) and the *London Declaration on Neglected Tropical Diseases*. London, 30 January 2012 (available at: http://search.who.int/search?q=london+declaration&ie=utf8&site=default_collection&client=_en&proxystylesheet=_en&output=xml_no_dtd&oe=utf8; accessed 22 October 2012).

PP8 Recognizing the diversity of neglected tropical diseases, their causative agents and relevant vectors and intermediate hosts, epidemic potential (such as for dengue, Chagas disease, human rabies of canine origin, and leishmaniasis), morbidity, mortality and associated stigmatization,

1. URGES Member States:

- (1) to ensure national ownership of neglected tropical disease prevention, control, elimination and eradication programmes;
- (2) to expand and implement interventions against neglected tropical diseases in order to reach the targets agreed by WHO and its partners in the London Declaration on Neglected Tropical Diseases and set out in WHO's roadmap for accelerating work to overcome the global impact of neglected tropical diseases by:
 - (a) ensuring that resources match national requirements and flow in a sustainable manner as a result of thorough planning and costing of prevention and control activities and detailed analysis of associated expenditures;
 - (b) enabling improvement of the management of the supply chain, in particular through forecasting, timely procurement of quality-assured goods, improved stock management systems, and facilitating importation and customs clearance;
 - (c) ensuring appropriate programme management and implementation through the development, sustenance and supervision of a cadre of skilled staff (including other sectors than health) at national, district and community levels;
- (3) to advocate predictable, long-term, international financing for control of neglected tropical diseases, to enhance and sustain national financial commitments, including resource mobilization from sectors other than health, and to strengthen capacity for prevention and control of neglected tropical diseases in order to accelerate implementation of the policies and strategies designed to achieve the targets set by the Health Assembly in various resolutions related to specific neglected tropical diseases as well as in the roadmap and the London Declaration;
- (4) to strengthen national capacity for monitoring and evaluation of the impact of interventions against neglected tropical diseases;
- (5) to devise plans for achieving and maintaining universal access to and coverage with interventions against neglected tropical diseases, notably:
 - (a) to ensure prompt diagnostic testing of all suspected cases of neglected tropical diseases and effective treatment with appropriate therapy of patients in both the public and private sectors at all levels of the health system including the community level;
 - (b) to implement and sustain coverage with preventive chemotherapy of at least 75% of the populations in need, as a prerequisite for achieving goals for disease control or elimination;

(c) to improve coordination for reducing transmission and strengthening control of neglected tropical diseases through provision of safe drinking-water, basic sanitation, vector control and veterinary public health;

2. CALLS upon WHO's international partners, including intergovernmental, international and nongovernmental organizations, financing bodies, academic and research institutions, civil society and the private sector:

(1) to assist in ensuring sufficient and predictable funding to enable the targets for 2015 and 2020 to be met and efforts to control neglected tropical diseases to be sustained;

(2) to harmonize the provision of support to countries for implementing a national plan based on WHO-recommended policies and strategies and using commodities that meet international quality standards;

(3) to ensure universal access to preventive chemotherapy, case management, and vector control and other prevention measures, as well as effective surveillance systems;

(4) to encourage initiatives for the discovery and development of new diagnostics, medicines and pesticides, and to support operational research to increase the efficiency and cost-effectiveness of interventions;

(5) to collaborate with WHO in order to provide support to Member States in measuring progress towards and accomplishing their goals of elimination and eradication of selected neglected tropical diseases;

3. REQUESTS the Director-General:

(1) to sustain WHO's leadership in the drive to overcome neglected tropical diseases;

(2) to support the development and updating of evidence-based norms, standards, policies, guidelines and strategies for prevention, control and elimination of neglected tropical diseases in order to chart a course for reaching the related targets set in resolutions of the Health Assembly;

(3) to monitor progress in achieving the targets for neglected tropical diseases set in WHO's roadmap for accelerating work to overcome the global impact of neglected tropical diseases,¹ and to provide support to Member States in their efforts to collect, validate and analyse data from national surveillance systems;

(4) to provide support to Member States to strengthen human resource capacity for prevention and control of neglected tropical diseases, including vector control and veterinary public health;

(5) to report to the Sixty-seventh World Health Assembly on progress towards the elimination and eradication of targeted diseases, through the Executive Board.

¹ *Accelerating work to overcome the global impact of neglected tropical diseases: a roadmap for implementation.* Geneva, World Health Organization, 2012 (document WHO/HTM/NTD/2012.1).

ANNEX

**RESOLUTIONS OF THE HEALTH ASSEMBLY CONCERNED WITH
NEGLECTED TROPICAL DISEASES, 1948–2012**

1. Since 1948, WHO has focused on major global health problems, and in 1952 the Fifth World Health Assembly approved a coordinated programme of work as being of value in the economic development of underdeveloped countries.¹ The programme focused, inter alia, on expanded technical assistance to governments in improving or setting up health services for conditions such as treponematoses and other communicable diseases including rabies, leprosy, trachoma, schistosomiasis and filariasis.²

2. Over the years the Secretariat has produced evidence-based data to inform prevention and control strategies for diseases in Member States that are important causes of morbidity, mortality and stigmatization. Many of these are exemplified in the following list of resolutions.

Subject area	Resolution	Title	Year
Vector-borne disease	WHA1.12	Vector biology and control	1948
Vector-borne disease	WHA2.18	Expert Committee on Insecticides: report on the first session	1949
Endemic treponematoses	WHA2.36	Bejel and other treponematoses	1949
Leprosy	WHA2.43	Leprosy	1949
Rabies	WHA3.20	Rabies	1950
Trachoma	WHA3.22	Trachoma	1950
Hydatidosis	WHA3.23	Hydatidosis	1950
Schistosomiasis	WHA3.26	Bilharziasis	1950
Vector-borne disease	WHA3.43	Labelling and distribution of insecticides	1950
Trachoma	WHA4.29	Trachoma	1951
Vector-borne disease	WHA4.30	Supply of insecticides	1951
Leprosy	WHA5.28	Leprosy	1952
Vector-borne disease	WHA5.29	Supply and requirements of insecticides: world position	1952
Leprosy	WHA6.19	Expert Committee on Leprosy: first report	1953
Leprosy	WHA9.45	Inter-regional Conference on Leprosy Control, 1958	1956
Vector-borne disease	WHA13.54	Vector-borne diseases and malaria eradication	1960
Vector-borne disease	WHA22.40	Research on methods of vector control	1969
Vector-borne disease	WHA23.33	Research on alternative methods of vector control	1970

¹ Resolution WHA5.61 and Technical Assistance Programme: third and fourth periods. In: *Official Records of the World Health Assembly*. Geneva, 5–22 May 1952. Geneva, World Health Organization, 1952.

² Work of the Fifth World Health Assembly [programme and budget: communicable-disease services]. *Chronicle of the World Health Organization*, 1952, **6**:174.

Subject area	Resolution	Title	Year
Parasitic diseases	WHA27.52	Intensification of research on tropical parasitic diseases	1974
Leprosy	WHA27.58	Coordination and strengthening of leprosy control	1974
Schistosomiasis	WHA28.53	Schistosomiasis	1975
Avoidable blindness (onchocerciasis and trachoma)	WHA28.54	Prevention of blindness	1975
Leprosy	WHA28.56	Leprosy control	1975
Tropical diseases	WHA28.71	WHO's role in the development and coordination of research in tropical diseases	1975
Schistosomiasis	WHA29.58	Schistosomiasis	1976
Leprosy	WHA29.70	Leprosy control	1976
Leprosy	WHA30.36	Leprosy control	1977
Research	WHA30.42	Special Programme for Research and Training in Tropical Diseases	1977
Zoonoses	WHA31.48	Prevention and control of zoonoses and foodborne diseases due to animal products	1978
Endemic treponematoses	WHA31.58	Control of endemic treponematoses	1978
Leprosy	WHA32.39	Leprosy	1979
Dracunculiasis	WHA34.25	International Drinking Water Supply and Sanitation Decade	1981
Human African trypanosomiasis	WHA36.31	African human trypanosomiasis	1983
Dracunculiasis	WHA39.21	Elimination of dracunculiasis	1986
Leprosy	WHA40.35	Towards the elimination of leprosy	1987
Dracunculiasis	WHA42.25	International Drinking Water Supply and Sanitation Decade	1989
Dracunculiasis	WHA42.29	Elimination of dracunculiasis	1989
Vector-borne disease	WHA42.31	Control of disease vectors and pests	1989
Research	WHA43.18	Tropical disease research	1990
Dracunculiasis	WHA44.5	Eradication of dracunculiasis	1991
Leprosy	WHA44.9	Leprosy	1991
Dengue and dengue haemorrhagic fever	WHA46.31	Dengue prevention and control	1993
Onchocerciasis	WHA47.32	Onchocerciasis control through ivermectin distribution	1994
Vector-borne disease	WHA50.13	Promotion of chemical safety, with special attention to persistent organic pollutants	1997
Lymphatic filariasis	WHA50.29	Elimination of lymphatic filariasis as a public health problem	1997
Dracunculiasis	WHA50.35	Eradication of dracunculiasis	1997
Human African trypanosomiasis	WHA50.36	African trypanosomiasis	1997

Subject area	Resolution	Title	Year
Trachoma	WHA51.11	Global elimination of blinding trachoma	1998
Chagas disease	WHA51.14	Elimination of transmission of Chagas disease	1998
Leprosy	WHA51.15	Elimination of leprosy as a public health problem	1998
Schistosomiasis and soil-transmitted helminthiases	WHA54.19	Schistosomiasis and soil-transmitted helminth infections	2001
Dengue and dengue haemorrhagic fever	WHA55.17	Prevention and control of dengue fever and dengue haemorrhagic fever	2002
Human African trypanosomiasis	WHA56.7	Pan African Tsetse and Trypanosomiasis Eradication Campaign	2003
Avoidable blindness (for both onchocerciasis and trachoma)	WHA56.26	Elimination of avoidable blindness	2003
Buruli ulcer	WHA57.1	Surveillance and control of <i>Mycobacterium ulcerans</i> disease (Buruli ulcer)	2004
Human African trypanosomiasis	WHA57.2	Control of human African trypanosomiasis	2004
Dracunculiasis	WHA57.9	Eradication of dracunculiasis	2004
Avoidable blindness (for both onchocerciasis and trachoma)	WHA59.25	Prevention of avoidable blindness and visual impairment	2006
Leishmaniasis	WHA60.13	Control of leishmaniasis	2007
Avoidable blindness (onchocerciasis and trachoma)	WHA62.1	Prevention of avoidable blindness and visual impairment	2009
Chagas disease	WHA63.20	Chagas disease: control and elimination	2010
Vector-borne disease	WHA63.26	Improvement of health through sound management of obsolete pesticides and other obsolete chemicals	2010
Dracunculiasis	WHA64.16	Eradication of dracunculiasis	2011
Schistosomiasis	WHA65.21	Elimination of schistosomiasis	2012

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