Report of the second WHO stakeholders meeting on gambiense human African trypanosomiasis elimination

Geneva, 21–23 March 2016

World Health Organization

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Abbreviations

BMGF	Bill & Melinda Gates Foundation
CATT	card agglutination test for trypanosomiasis
CIRDES	Centre International de Recherche-Développement sur l'Elevage en zone Subhumide (International Centre for Resarch and Development on Breeding in Subhumid Area)
COCTU	Coordinating Office for Control of Trypanosomiasis in Uganda
CSF	Cerebrospinal fluid
CTC	capillary tube centrifugation
DITECT HAT	Diagnostic Tools for Human African Trypanosomiasis Elimination and Clinical Trials Project
DND*i*	Drugs for Neglected Diseases *initiative*
FAO	Food and Agriculture Organization of the United Nations
FIND	Foundation for Innovative New Diagnostics
GE Healthcare	General Electrics Healthcare
HAT	human African trypanosomiasis
HAT-e-TAG	Technical Advisory Group for HAT elimination
IAEA	International Atomic Energy Agency
ICIPE	International Centre of Insect Physiology and Ecology
INRB	Institut National de Recherche Biomédicale (National Institute for Biomedical Research)
IRD	Institut de Recherche pour le Développement (Institute of Research for Developpement)
ITM	Institute of Tropical Medicine of Antwerp
LAMP	Loop-mediated isothermal amplification
LSTM	Liverpool School of Tropical Medicine
mAECT	mini anion exchange column test
MSC	modified single centrifugation
MSF	Médecins Sans Frontières (Doctors without borders)
NECT	nifurtimox–eflornithine combination therapy
PAAT	Programme Against African Trypanosomiasis
PATTEC	Pan-African Tsetse and Trypanosomiasis Eradication Campaign
PNETHA	Programme National d'élimination de la trypanosomiasis humaine africaine (HAT national elimination programme)
PNLTHA	Programme National de lutte contre la trypanosomiasis humaine africaine (HAT national control programme)
RDT	rapid diagnostic test
RIME LAMP	Loop-mediated isothermal amplification of the random insertion mobile element
SEEG	Spatial Ecology & Epidemiology Group, University of Oxford
SL RNA	Spliced leader RNA
SSNCP	sleeping sickness national control programme (PNLTHA in French)
WBC	white blood cell
WHO	World Health Organization

1. Introduction

Joint efforts by the World Health Organization (WHO) and partners since 2000 have led to the inclusion of human African trypanosomiasis (HAT) on the agenda of neglected tropical diseases targeted for elimination as a public health problem. Important milestones towards elimination have been achieved. Effective collaboration among partners has contributed to building a consistent network of academia, public–private partnerships, nongovernmental organizations, donors and national HAT programmes, under the auspices and coordination of WHO.

In 2011, the WHO Strategic and Technical Advisory Group for Neglected Tropical Diseases established the goal to eliminate HAT as a public health problem by 2020. Efforts were concentrated on the gambiense form of sleeping sickness, which accounts for 98% of the global burden of the disease. The Sixty-sixth World Health Assembly endorsed this goal in resolution WHA66.12 on neglected tropical diseases adopted in 2013, providing an international mandate to work towards elimination.

In 2013, a WHO Expert Committee formulated an elimination strategy and issued updated recommendations on the use of epidemiological (including high-quality mapping), diagnostic, treatment and vector control tools.[1]

In 2014, WHO convened the main stakeholders involved in the gambiense HAT elimination objective in order to strengthen the mechanisms of collaboration among the multiple partners. The meeting reviewed the epidemiological situation and existing challenges, refined the objectives for control, and identified the gaps in basic and implementation research to be filled to achieve elimination.

Also in 2014, a WHO network for gambiense HAT elimination was created to coordinate, harmonize and optimize synergies among sleeping sickness national control programmes, international organizations, donors, foundations and nongovernmental organizations, and scientific institutions developing new tools.[2] The network meets biennially and commissions groups to address the various aspects of elimination. These include annual country progress meetings, a scientific consultative group and an implementation coordination group (divided into five subgroups on development of new tools; operational research; ad-hoc country coordination; advocacy and financial resource mobilization; and integration of new tools into national and global policies). For rhodesiense HAT, a similar but simpler structure was created in October 2014.[3,4]

During the past 2 years the working groups have met and built the necessary dynamic among the multiple partners as well as the many facets, methodologies and strategies needed to attain elimination. The progress reports of each working group of the WHO Network for HAT elimination[5] formed the basis for the agenda of the second WHO stakeholders meeting on the elimination of gambiense HAT (Geneva, 21–23 March 2016).

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[1] Control and surveillance of human African trypanosomiasis: report of a WHO Expert Committee. Geneva: World Health Organization; 2013 (WHO Technical Report Series, No. 984).

[2] Holmes P. First WHO meeting of stakeholders on elimination of gambiense human African trypanosomiasis. PLoS Negl Trop Dis. 2014 Oct; 8(10):e3244.

[3] Holmes P. On the road to elimination of rhodesiense human African trypanosomiasis: first WHO meeting of stakeholders. PLoS Negl Trop Dis. 2015 Apr; 9(4):e0003571.

[4] Report of the first WHO stakeholders meeting on rhodesiense human African trypanosomiasis Geneva, 20–22 October 2014. Geneva: World Health Organization; 2014.

[5] Report of a WHO meeting on elimination of African trypanosomiasis (*Trypanosoma brucei gambiense*). Geneva, 3–5 December 2012. Geneva: World Health Organization; 2013.

2. Meeting objectives

The objectives of the meeting were:

- to maintain the commitment of national authorities and technical and financial partners to WHO's elimination objective for gambiense HAT;
- to share and assess achievements, challenges and views on the elimination goal among countries and implementing partners since the first meeting held in 2014;
- to assess the status of critical technical aspects in research and development of therapeutic and diagnostic tools, epidemiology and vector control; and
- to analyse and discuss the collaboration and coordination among stakeholders during the past 2 years and for the future.

3. Opening remarks

Dr Minghui Ren, WHO Assistant Director-General for HIV/AIDS, Tuberculosis, Malaria and Neglected Tropical Diseases, opened the meeting by highlighting the commitment of the Organization and all the partners involved in the elimination of sleeping sickness and other neglected tropical diseases.

Dr Abdoulaye Diarra, on behalf of the Regional Adviser for neglected tropical diseases, WHO Regional Office for Africa, stressed the importance of coordinated interactions and efforts among all the partners involved in HAT control and elimination, and the increasing support needed by the endemic countries as the 2020 elimination goal approaches.

Dr Daniel Dagne, Coordinator of the Innovative and Intensified Disease Management unit, WHO Department of Control of Neglected Tropical Diseases, recalled the partnership-building efforts of the past 15 years that have yielded a sustained reduction in the numbers of cases and created a solid perspective for HAT elimination within the defined timeframe.

The chair was assumed by Dr Jorge Seixas, co-chaired by Dr Anne Moore. The meeting agenda is attached as Annex 1 and the list of participants as Annex 2.

4. Progress on elimination of gambiense human African trypanosomiasis

National programmes and their partners have sustained a good level of control activities since the first stakeholders' meeting (Geneva, 25–27 March 2014), as reflected in the country reports and other documents. Progress is reviewed every year in a dedicated meeting convened by WHO of all national programme directors and focal points, allowing a regular inventory of the situation.

Substantive progress is evident. However, in order to properly monitor progress, a correct, continuous and reliable measurement of epidemiological indicators is increasingly important. WHO evaluates progress in HAT control according to the following indicators:

- numbers of cases reported
- geographical distribution of cases
- population at risk
- coverage of population at risk (diagnosis and treatment).

(WHO/HTM/NTD/IDM/2013.4)
(http://apps.who.int/iris/bitstream/10665/79689/1/WHO_HTM_NTD_IDM_2013.4_eng.pdf).

The quantity and quality of the data available to monitor these indicators are considered satisfactory at present. The database of the HAT Atlas (jointly implemented by WHO and the Food and Agriculture Organization of the United Nations [FAO]) is an important tool to analyse in time and space the distribution of the disease. The Atlas captures data collected during 2000–2014 on health facilities performing passive surveillance and active screening performed by mobile teams and on the numbers of new HAT cases reported. It includes 35 239 geolocations and 203 198 cases reported in the past 15 years, 94% of which have been mapped at the village level.

Although data are available to assess regularly the situation in most endemic areas, a few "grey zones" remain where adequate strategies are needed to improve epidemiological knowledge.

The key elements needed to achieve the intermediate goal (elimination of HAT as a public health problem by 2020) and the final goal (interruption of transmission of gambiense HAT (sustainable elimination), by 2030 are:

- to support disease endemic countries to ensure access to diagnosis and treatment for populations at risk;
- to strengthen surveillance, and collect and analyse data in order to plan and monitor interventions and to document and follow-up the epidemiological evolution of the disease, including improving knowledge in grey zones; and
- to coordinate the efforts of stakeholders involved in HAT elimination.

4.1 Reported cases

The numbers of cases of gambiense HAT reported to WHO have followed a decreasing trend since 2001, with a reduction of 86% by 2014. Fewer than 5000 cases were reported annually in 2014 and 2015 (the data for 2015 are still under validation) (Figure 1).

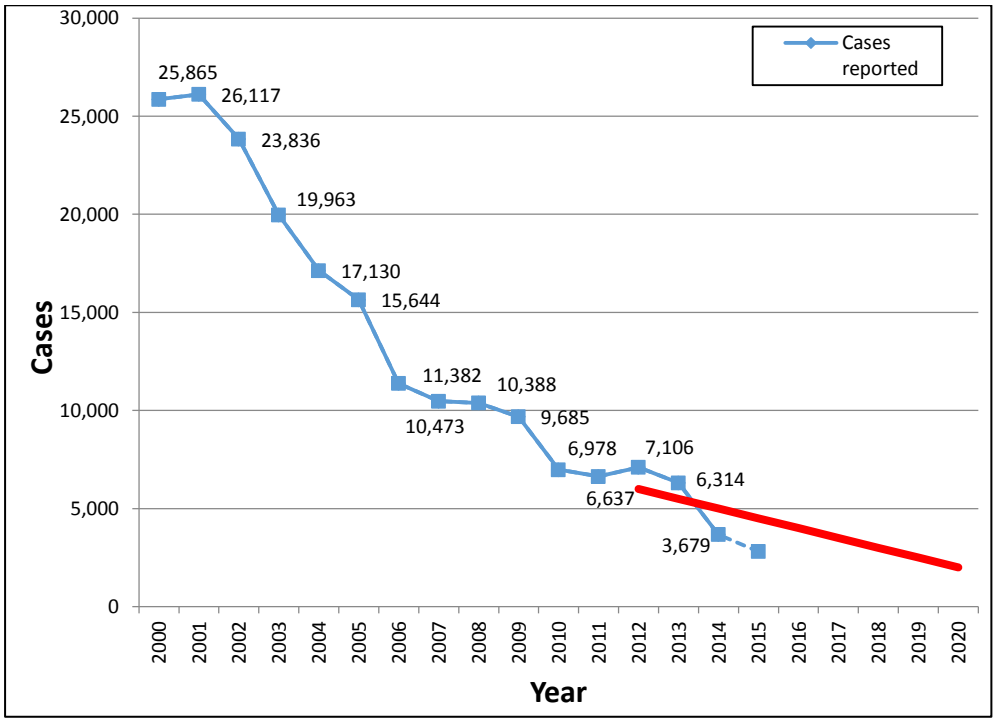

Figure 1. Progression towards gambiense HAT elimination: numbers of cases reported in 2000–2015 and benchmark of number of cases expected in 2012–2020

Fortunately, the sustained decrease in the numbers of reported cases is not a consequence of decreasing surveillance activities: rather, the numbers of people screened have been maintained at the same level (Figure 2) and the numbers of health facilities with capacity to screen, diagnose and treat HAT have been increasing annually, improving access to diagnosis.

It is considered therefore that such a decrease reflects the reality of transmission in the field, and results from sustained active and passive screening in the gambiense HAT endemic countries.

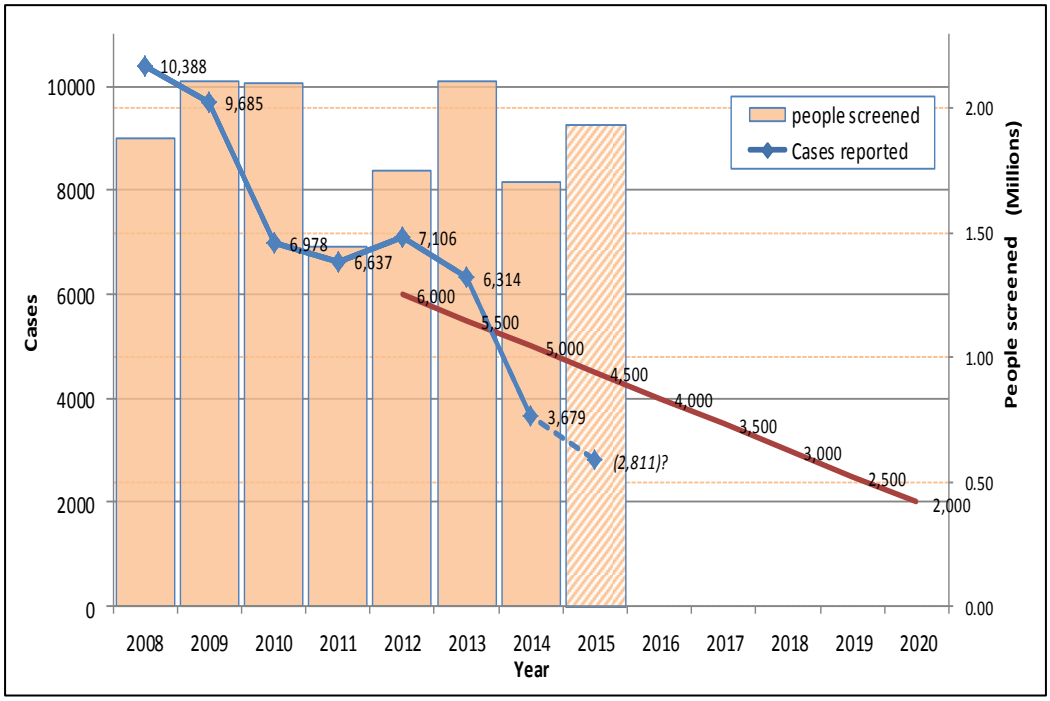

Figure 2. Numbers of people screened and numbers of reported cases, globally; the red line is the benchmark of numbers of cases expected from 2012 to 2020

The WHO roadmap (2012) set a benchmark for elimination with targets for the annual numbers of reported cases from 2012 to 2020. In 2012 and 2013 higher numbers of cases were reported than the milestone figures. This increase was mainly due to the improvement of security in Oriental Province (Democratic Republic of the Congo) and the Ouham focus (Central African Republic), facilitating access to areas that had not been visited for some