
Road map for neglected tropical diseases 2021–2030

Report by the Director-General

1. In 2020 the Seventy-third World Health Assembly issued decision WHA73(33), in which it endorsed the new road map for neglected tropical diseases 2021–2030 and requested the Director-General, inter alia, to report biennially to the Health Assembly, through the Executive Board, on the implementation of the road map. This report is submitted in response to that decision.

CONTEXT

2. The coronavirus disease (COVID-19) pandemic has disrupted planning and ongoing activities for neglected tropical diseases globally, regionally and nationally. Progress in implementing the road map must therefore be considered in this context.

3. As the results of most of the indicators for 2021 – the first year of the new road map – will be available only in 2022, this report includes their status as of 2020 or the latest year for which data are available. These data may be considered as the baseline for the new road map and the outcomes of the first road map 2012–2020.

4. The sections below summarize progress in implementing the three pillars of the road map.

PROGRESS IN IMPLEMENTING THE ROAD MAP FOR NEGLECTED TROPICAL DISEASES 2021–2030

Pillar 1. Accelerate programmatic action

Indicators for the overarching global targets for 2030

5. The indicator used to track the percentage reduction in people requiring interventions against neglected tropical diseases is also indicator 3.3.5 of the Sustainable Development Goals (number of people requiring interventions against neglected tropical diseases). In 2019, 1.74 billion people required interventions. The highest proportion was in the South-East Asia Region (53%), followed by the African (34%), Eastern Mediterranean (5%), Western Pacific (4%), Americas (3%) and European (1%) regions. This was almost 20% less than the 2.19 billion people requiring interventions in 2010, and about 12 million people fewer than reported in 2018.¹

¹ Global health observatory. Reported number of people requiring interventions against NTDs. Available at <https://www.who.int/data/gho/data/indicators/indicator-details/GHO/reported-number-of-people-requiring-interventions-against-ntds>, accessed 8 November 2021.

6. Estimates of disability-adjusted life years are available for 14¹ of the 20 diseases. In 2019, the last year for which estimates are available,² the disability-adjusted life years related to neglected tropical diseases were 14.5 million, down from 16.3 million in 2015, and decreased in all regions.

7. By 2020, 42 countries had eliminated at least one neglected tropical disease. In 2021, Gambia became the 43rd country, by being validated as having eliminated trachoma as a public health problem.³

8. In 2020, 732 million people were treated for at least one neglected tropical disease requiring preventive chemotherapy, across 62 countries, achieving global coverage of 42%, down from 66% in 2019, across 81 countries, with a total of 1.1 billion treated. These reductions were among the effects of disruptions to services resulting from the COVID-19 pandemic.

Impact on disease-specific targets

Diseases targeted for eradication

9. In 2020, six countries reported a total of 27 human cases of dracunculiasis and 1600 infections in animals (mainly among dogs), a reduction of 50% and 20% respectively from 2019. From January to August 2021, eight human cases were reported, a 67% reduction from the comparable period in 2020, and a 57% reduction was reported in the number of infected animals. Five endemic countries (Angola, Chad, Ethiopia, Mali and South Sudan) and two countries that are no longer reporting cases (Democratic Republic of the Congo and Sudan) remain to be certified. Donated azithromycin facilitated mass drug administration for yaws and active surveillance in some endemic countries in the African and Western Pacific regions; laboratory networks are being set up to monitor any potential drug resistance. India remains the only country certified as having interrupted transmission.

Diseases targeted for elimination (interruption of transmission)

10. In 2020, 565 cases of gambiense human African trypanosomiasis were reported, a 98% reduction since 2000. Reports on leprosy were received from 133 countries, of which 31 reported zero cases. Globally, 127 572 new cases were reported; 8626 (7%) were in children. By 2020, the number of new cases had decreased by 10%, as had the numbers of affected children and patients with new disabilities. Four countries in the Region of the Americas were verified as having interrupted transmission of onchocerciasis. Treatment continues in endemic countries in all affected regions.

Diseases targeted for elimination as a public health problem

11. Progress against Chagas disease included global advocacy through the inaugural World Chagas Disease Day held on 14 April 2020. A global virtual event⁴ focused on health promotion, public

¹ African trypanosomiasis, Chagas disease, cysticercosis, dengue, echinococcosis, food-borne trematodes, leishmaniasis, leprosy, lymphatic filariasis, onchocerciasis, rabies, schistosomiasis, soil-transmitted helminthiasis (ascariasis, trichuriasis and hookworm disease) and trachoma.

² Global health observatory. Global health estimates 2019: Leading causes of DALYs. Available at <https://www.who.int/data/gho/data/themes/mortality-and-global-health-estimates/global-health-estimates-leading-causes-of-dalys>, accessed 8 November 2021.

³ WHO Alliance for the Global Elimination of Trachoma by 2020: progress report on elimination of trachoma, 2020. Wkly Epidemiol Rec. 2021;96(31):353–64.

⁴ World Chagas Disease Day. 14 April 2021 (<https://www.who.int/campaigns/world-chagas-disease-day/2021>, accessed 18 November 2021).

information and education, advocacy for action and the need to address discrimination and stigma associated with the disease. Held in the early months of the pandemic, the online event brought together countries, regional offices, donors, partners, patients and patient organizations, and health care providers. It was widely reported in the press, with high uptake on social media platforms. A five-year programme to eliminate congenital Chagas disease was endorsed by member countries of the Organization of Ibero-American States. Interruption and control of domiciliary vector transmission and universal screening for Chagas disease in blood donors was maintained in the Region of the Americas.

12. Despite an outbreak of rhodesiense human African trypanosomiasis in 2019–2020 resulting in 214 cases, the trend in the number of cases from 2000 to 2020 shows a decrease of 84%. In 2020, the number of reported cases of visceral leishmaniasis fell to 12 739, the lowest number since 1998. In the South-East Asia Region, 98% of implementation units achieved the epidemiological threshold of elimination as a public health problem. By 2020, cumulative reductions of 74% in lymphatic filariasis infections and 49% in the population requiring mass treatment had been achieved. Seventeen countries or territories¹ have been validated for eliminating this disease as a public health problem. Deworming against soil-transmitted helminthiases continued at a reduced pace because of COVID-19-related closures of schools and vaccination services. Since 2020, one additional country (Gambia) has been validated as having eliminated trachoma as a public health problem, bringing the total to 11 countries validated as having eliminated this disease. The estimated global total number of people with trachomatous trichiasis was 1.8 million on 21 June 2021, down from 2.0 million cases on 1 May 2020.

Diseases targeted for control

13. Nine diseases or groups of diseases² are targeted for control. Progress has been made in different areas, including support to pilot interventions for echinococcosis, foodborne trematodiasis and taeniasis/cysticercosis in selected countries; supply of medicines for case management of cutaneous leishmaniasis, especially in crisis-affected countries in the Eastern Mediterranean Region; and follow-up with partners and donors on the evaluation of a new medicine for mycetoma (fosravuconazole) and on the improvement of access to existing treatment for chromoblastomycosis and scabies. With regard to snakebite envenoming, the Snakebite Information and Data Platform³ was launched in September 2021 and includes information on the world's venomous snake species and their distribution, as well as an up-to-date database on antivenoms and their manufacturers.

14. Efforts are also being made to address the growing challenge of Aedes-borne arboviral diseases, including review of country-level activities and build-up of preparedness and response for dengue, given that in 2019 many countries were affected by this disease. WHO is working on a Global Arbovirus Initiative, focusing initially on Aedes-borne arboviral diseases, which will strengthen the coordination, communication, capacity-building, research, preparedness and response necessary to mitigate the growing risk of epidemics due to arboviral diseases.

¹ Malawi and Togo (African Region); Maldives, Sri Lanka and Thailand (South-East Asia Region); Egypt and Yemen (Eastern Mediterranean Region); Cambodia, Cook Islands, Kiribati, Marshall Islands, Niue, Palau, Tonga, Vanuatu, Viet Nam, and Wallis and Futuna (Western Pacific Region).

² Buruli ulcer; dengue; echinococcosis; foodborne trematodiasis; leishmaniasis (cutaneous); mycetoma, chromoblastomycosis and other deep mycoses; scabies and other ectoparasitoses; snakebite envenoming; and taeniasis and cysticercosis.

³ Available at <https://www.who.int/teams/control-of-neglected-tropical-diseases/snakebite-envenoming/snakebite-information-and-data-platform>, accessed 18 November 2021.

Challenges and the way forward

15. Interventions and activities were significantly disrupted due to the COVID-19 pandemic across the entire spectrum of essential health services. According to a recent survey,¹ as of early 2021, services for neglected tropical diseases were the second most frequently disrupted (44% of countries; 48/109), after those targeting mental, neurological and substance use disorders. Some 60% of countries reported disruption to preventive chemotherapy. The main public health consequences of these disruptions are delays in achieving the global, regional and national public health goals set for relevant diseases.

16. Delays in manufacture, supply chain issues, shipment and delivery of medicines and consumables to and within target countries exacerbated challenges in ensuring the availability and timely utilization of medicines. Medicines with a short shelf life, such as praziquantel, are especially vulnerable to expiration as a result of disrupted delivery channels.

17. The following measures were taken to mitigate the impact of the COVID-19 pandemic on services for neglected tropical diseases:

(a) Technical guidance was developed for national health authorities and implementers on adapting activities to enable their safe implementation in the context of the pandemic. Global guidance was further adapted by WHO regional offices and implementation partners as tools and other resources;

(b) Guidance documents were issued on the safe adaptation of both community-based² and health facility-based services for neglected tropical diseases,³ as well as on the resumption of community-based activities relying on a risk-based approach;⁴

(c) An online training course dedicated to neglected tropical diseases in the context of the pandemic⁵ was made available on the OpenWHO platform in Arabic, English, French, Spanish and Portuguese; updated guidance was also issued on the use of masks in community outreach activities;⁶

¹ Second round of the national pulse survey on continuity of essential health services during the COVID-19 pandemic, January–March 2021: interim report, 22 April 2021. Geneva: World Health Organization, 2021 (<https://apps.who.int/iris/handle/10665/340937>, accessed 8 November 2021).

² Community-based health care, including outreach and campaigns, in the context of the COVID-19 pandemic: interim guidance, May 2020. Geneva: World Health Organization; 2020 (<https://apps.who.int/iris/handle/10665/331975>, accessed 8 November 2021).

³ Maintaining essential health services: operational guidance for the COVID-19 context, interim guidance 1 June 2020. Geneva: World Health Organization; 2020 (<https://apps.who.int/iris/handle/10665/332240>, accessed 8 November 2021).

⁴ Considerations for implementing mass treatment, active case-finding and population-based surveys for neglected tropical diseases in the context of the COVID-19 pandemic: interim guidance, 27 July 2020. Geneva: World Health Organization; 2020 (<https://apps.who.int/iris/handle/10665/333499>, accessed 8 November 2021).

⁵ Available at <https://openwho.org/courses/covid-19-ntd-en> (accessed 8 November 2021).

⁶ Aide memoire: use of medical and non-medical/fabric masks for community outreach activities during the COVID-19 pandemic, based on current WHO guidance, 31 May 2021. Geneva: World Health Organization; 2020 (<https://apps.who.int/iris/handle/10665/341570>, accessed 8 November 2021).

(d) Review of requests and re-scheduling of plans prevented loss of medicines with short shelf-lives from expiring; production, shipment, delivery and distribution of medicines and other medical consumables was closely followed up with all relevant actors;

(e) In collaboration with academic institutions, mathematical modelling exercises were conducted to assess the impact of disruptions on timelines for achieving public health targets for selected diseases, and the benefits of remedial strategies.¹

Pillar 2. Intensify cross-cutting approaches

18. Work at global and national levels is helping to better position services for neglected tropical diseases within health systems and primary health care. Interventions against neglected tropical diseases are included in the compendium of universal health care. Linkages with other health services are being promoted where diseases overlap in distribution and potentially impact one another.

19. To effectively tackle the burden of neglected tropical diseases of the skin, a framework was published to guide relevant national programmes in integrating their management at primary health care level. In addition, WHO developed a smartphone App aimed at assisting health workers in the identification of skin conditions through a visual inspection of the lesions and the assessment of their associated signs and symptoms.²

20. There are strong epidemiological associations between inadequate access to water, sanitation and hygiene and a wide range of conditions, including several neglected tropical diseases. Nevertheless, 1.6 billion people still lack access to safe drinking-water at home, 2.8 billion do not have access to safe sanitation and 1.9 billion lack basic domestic hand-washing facilities.³

21. The strategic objectives of the updated global strategy on water, sanitation and hygiene⁴ are to increase awareness of the co-benefits of joint action and engagement; use data on water, sanitation and hygiene in neglected tropical disease programmes, and vice versa to guide informed decision-making; strengthen evidence and establish best practice on integrated approaches; and jointly plan, deliver and evaluate programmes.

22. Most neglected tropical diseases occur at the human–animal interface. Implementing One Health approaches to prevent and manage these diseases generates momentum for substantial long-term gains. Attending to diseases strengthens health systems and builds baseline data to better manage both the endemic diseases with a human–animal interface and the emerging infectious diseases and pandemic threats. Activities focus on multisectoral approaches and practices to drive policy, behaviour change and

¹ Impact of the COVID-19 pandemic on seven neglected tropical diseases: a model-based analysis. Geneva: World Health Organization; 2021 (<https://apps.who.int/iris/handle/10665/343993>, accessed 8 November 2021).

² Available for Android at https://play.google.com/store/apps/details?id=com.universaldocctor.skin_ntds&hl=en&gl=US, and for iOS at <https://apps.apple.com/us/app/skin-ntds-app/id1499080526>.

³ Progress on household drinking water, sanitation and hygiene 2000–2020: five years into the SDGs. Geneva: World Health Organization; 2021 (<https://apps.who.int/iris/handle/10665/345081>, accessed 8 November 2021).

⁴ Ending the neglect to attain the Sustainable Development Goals. A Global strategy on water, sanitation and hygiene to combat neglected tropical diseases 2021–2030. Geneva: World Health Organization; 2021 (<https://www.who.int/publications/i/item/9789240022782>, accessed 8 November 2021).

surveillance, and build capacities to prevent and control priority health risks that occur at the human-animal interface, with the involvement of all sectors and partners nationally and locally.

23. Many neglected tropical diseases are vector-borne and benefit from the Global Vector Control Response 2017–2030, welcomed by the Seventieth World Health Assembly in resolution WHA70.16 (2017). A Joint Action Group is coordinating the implementation of this strategy at regional and country levels. An online platform for monitoring progress was established in 2020. All regions developed a related policy, strategy or recommendations. Country-level support was provided. A global survey indicated that the response is on track for some priority activities, for example vector control strategic plans, but milestones were not reached for other activities such as vector-control needs assessments. Impact indicators showed a 9.7% reduction in global mortality. Overall, progress in implementation remained modest due to funding shortfalls and insufficient human resources at all levels.

Pillar 3. Change operating models and culture to facilitate country ownership

24. A framework to guide countries in developing sustainable plans for the control and elimination of neglected tropical diseases was published. WHO's regional and country offices, in close collaboration with health ministries and partners, provided technical support to frame sustainable annual and multi-year programmes. Partnership and donor engagement remain crucial. Medicine donations and financial agreements were renewed with pharmaceutical companies and other partners.

Other actions taken in support of the road map

25. The road map was disseminated in all six official languages, in print, online and as a smartphone App;¹ and three companion documents were published to provide further guidance on the strategic shifts advocated in the road map.

26. Global online webinars were organized by WHO to advocate for the continued and safe implementation of activities on neglected tropical diseases in the context of the COVID-19 pandemic. These webinars started in 2020 and continued in 2021 with a stronger focus on the road map, supported by relevant news releases, infographics and audio-visual products. Virtual meetings of national programme managers and partners organized by regional offices provided further exposure to the road map and its operating principles.

27. New online courses aimed at strengthening capacities and facilitating implementation of the road map at global and country levels are currently being developed. A channel dedicated to neglected tropical diseases was launched on the Open WHO platform,² with courses on mycetoma, podoconiosis, rabies/One Health, scabies and tungiasis, in addition to the above-mentioned course on neglected tropical diseases and COVID-19.

28. **Overcoming the diagnostics gaps.** The Diagnostic Technical Advisory Group on neglected tropical diseases is addressing the existing critical gaps in diagnostics. Target product profiles were published for prioritized use cases for human African trypanosomiasis (rhodesiense) lymphatic filariasis, onchocerciasis, soil-transmitted helminthiasis and are in development for human African trypanosomiasis (gambiense) and neglected tropical diseases of the skin. Regulatory and manufacturing pathways to facilitate prequalification and regulatory approval of in-vitro diagnostics are being explored.

¹ Available for iOS at <https://apps.apple.com/us/app/ntd-road-map-2021-2030/id1549823959>, and for Android at <https://play.google.com/store/apps/details?id=org.who.NTDROADMAP>.

² Available at <https://openwho.org/channels/ntd> (accessed 8 November 2021).

A group of donors and partners has been engaged to advocate for the required investment to translate the target product profiles into diagnostic products and to address the access issues.

29. **Monitoring and evaluation.** The monitoring, evaluation and research working group, under the aegis of the Strategic Technical and Advisory Group for Neglected Tropical Diseases, endorsed a framework to support implementation of the road map in the context of national routine health information systems.

30. **Ensuring access and logistics for medicines and health products.** Quality-assured medicines and health products remain the cornerstone of successful interventions against neglected tropical diseases.

31. Three formulations of albendazole, praziquantel and ivermectin were prequalified in 2021, bringing to nine the total number of medicinal products for treatment of neglected tropical diseases in the WHO prequalified list.

32. Technical advice and guidance were provided to manufacturers, product development partnerships and academic institutions on prequalification requirements and access strategy through the collaborative procedure for accelerated registration of WHO-prequalified finished pharmaceutical products.

33. Donated medicines and health products have strengthened support to neglected tropical disease programmes in affected countries. During 2020–2021, over 4.7 billion medicines and health products were made available to 112 Member States free of charge.

ACTION BY THE EXECUTIVE BOARD

34. The Board is invited to note the report; in its discussions it is further invited to provide guidance on sustaining implementation of the road map and ensuring that interventions against neglected tropical diseases are considered as part of essential health services in the context of the COVID-19 pandemic.

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