

Thirteenth meeting of the Strategic and Technical Advisory Group for Neglected Tropical Diseases

15–17 September 2020

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Abbreviations and acronyms

DTAG	Diagnostic Technical Advisory Group
HAT	human African trypanosomiasis
IDA	ivermectin, diethylcarbamazine citrate and albendazole
LF	lymphatic filariasis
MDA	mass drug administration
NTD	neglected tropical diseases
OTS	Onchocerciasis Technical Advisory Subgroup
STAG	Strategic and Technical Advisory Group
STH	soil-transmitted helminthiasis
TDR	Special Programme for Research and Training in Tropical Diseases
TPP	target product profile
UHC/UCN	Universal Health Coverage/Communicable and Noncommunicable Diseases
WASH	water, sanitation and hygiene
WHE	WHO Health Emergencies programme

The thirteenth meeting of the Strategic and Technical Advisory Group for Neglected Tropical Diseases (STAG-NTD) was held virtually on 15–17 September 2020. The agenda is attached as **Annex 1** and the list of participants as **Annex 2**.

1. Opening of the meeting and appointment of the Rapporteur

Dr Mwelecele Ntuli Malecela, Director, WHO Department of Control of Neglected Tropical Diseases, opened the meeting and invited Dr Ren Minghui, WHO Assistant Director-General for Universal Health Coverage/Communicable and Noncommunicable Diseases (UHC/UCN), to address the meeting.

Dr Ren said that the COVID-19 pandemic touched nearly every aspect of life and work, and, for many people, had re-awakened their understanding of the importance of infectious diseases. That had brought new calls for the expertise of those involved in infectious diseases, such as those attending the meeting, and WHO appreciated the fact that they had taken the time to attend.

Despite the challenges posed by COVID-19, new successes had been achieved in the response to neglected tropical diseases (NTDs). In 2020, Malawi had eliminated lymphatic filariasis (LF), Myanmar had eliminated trachoma, and Togo had eliminated human African trypanosomiasis (HAT). Those were significant milestones, and credit must be given to all those who contributed. A lot more remained to be done, and WHO looked forward to deliberations during the Seventy-third World Health Assembly in November 2020 on the NTD road map 2021–2030.

NTDs should also be part of the new Global Framework for Multi-disease Elimination, which was being considered in consultation with other WHO technical units and with external partners and would be discussed by STAG. Controlling, eliminating and eradicating NTDs were critical to promoting health, keeping the world safe and serving the vulnerable, and the deliberations of STAG kept WHO on track to achieving those goals.

The Chair, Professor David Mabey, London School of Hygiene & Tropical Medicine, confirmed that Dr Margaret Gyapong would continue as Rapporteur.

2. Commemoration of Professor Marleen Boelaert and Dr Ricardo Thomson

Professor Mabey called on members to give thanks for the contributions of two former STAG members who had passed away since the previous meeting. In a video, Dr Marc-Alain Widdowson, Director, Institute of Tropical Medicine, Antwerp, Belgium, recalled the outstanding scientific and personal attributes of Professor Boelaert. In another video, Dr Armindo Tiago, Minister of Health, Mozambique, described the consistent, valuable contributions of Dr Thomson to work on NTDs.

3. Director's report on progress and challenges

The Director described progress that had been made by the NTD department since the previous (twelfth) meeting of STAG (Geneva, 29–30 April 2019) and the extraordinary STAG meeting (Geneva, 2–3 September 2019), the impact of the COVID-19 pandemic on their work and the new structure and staffing of the department.

3.1 Progress against NTDs

Dr Malecela said that, in 2019, more than 1.7 billion people required interventions against NTDs, which was more than 500 million fewer than in 2010; over 1 billion people had received at least one intervention. At least one NTD had been eliminated in 42 countries. Preventive chemotherapy had been provided for most people who required it, with slight downward trends only for soil-transmitted helminthiases (STH) and schistosomiasis.

Between 2017 and 2019, donor commitment to NTDs had reached US\$ 1 billion. New medicine donations had been secured in 2020 for niclosamide and praziquantel from Bayer to treat taeniasis and cysticercosis and for benznidazole from Mundo Sano and nifurtimox from Bayer for treatment of paediatric Chagas disease. The NTD department was involved in high-profile webinars and an advocacy campaign for the new NTD road map.

Dr Malecela then presented progress achieved against each of the NTDs addressed by the department. With regard to **dracunculiasis**, 20 human cases had been reported in six countries up to July 2020, which represented a 49% reduction from the same period in 2019. Angola had been classified as endemic after 3 consecutive years of reporting laboratory-confirmed indigenous cases. The main problem remained dogs infected with *Dracunculus medinensis*.

Work to eliminate **HAT** as a public health problem was proceeding well, with a focus on treatment guidelines for gambiense HAT. The WHO **Onchocerciasis** Technical Advisory Subgroup (OTS) had set thresholds for stopping mass drug administration (MDA) and discussed new diagnostics and the mapping of elimination. A WHO informal consultation on a framework for **scabies** control had recommended mapping of the global distribution and identification of areas for MDA and case management. For **LF**, the number of infected people had been estimated in a geospatial model to have been reduced by 74% between 2000 and 2018 (1). MDA with ivermectin, diethylcarbamazine citrate and albendazole (IDA) had been conducted in 13 countries. For **trachoma**, the number of people requiring surgery for trichiasis had decreased by 74%, and the population requiring antibiotics, facial cleanliness and environmental improvement of the SAFE strategy for trachoma elimination had decreased by 91% between 2002 and 2020. New guidelines on elimination of **schistosomiasis**, being considered by the WHO Guidelines Review Committee, included recommendations for treatment of all at-risk groups, a single threshold for preventive chemotherapy, a strategy of integrated control and verification of interruption of transmission. With regard to **STH**, a chewable formulation of mebendazole had been made available for preschool-aged children in 2019, which could accelerate achievement of the global target. A freely accessible database for impact assessment was being developed, and a position paper and a webinar on treatment of women of reproductive age were planned. Major progress had been made towards elimination of **visceral leishmaniasis** (VL) as a public health problem in the South-East Asia Region, although cases were reported from non-endemic areas, and antileishmanial medicines and diagnostic tests were produced from only single manufacturers.

A framework was being prepared for integrated control of **skin NTDs**, and the approach had been used for surveillance and mapping in Benin, Côte d'Ivoire, Ghana and Togo. A **yaws** eradication campaign had begun in Cameroon, Central African Republic and Congo, and total community treatment had been initiated in Papua New Guinea and Vanuatu, with 153 million azithromycin tablets donated by EMS Pharmaceutical Company (Brazil). A new antituberculosis agent, telacebec, which might substantially

reduce the duration of treatment for **Buruli ulcer**, was to be tested in clinical trials. To increase dissemination and use of the WHO pictorial training guide for recognizing skin NTDs and to estimate its impact, an app had been developed, which was expected to be operational in 2021.

Progress in planning and implementation of the **Global vector control response 2017–2030** included regional plans in five of the six WHO regions; publication of a progress report later in September; evidence-based assessments completed in 13 countries, a global survey of insecticide use and studies on insecticide resistance in several centres; normative guidance and infrastructure support for national integrated vector control strategies and product testing; and an internal platform for sharing resources, news, activities and data, with dashboard summaries for analysis and reporting.

Support had been provided to 35 countries that had reported major outbreaks of **dengue**, and WHO's Health Security Council, under the chairmanship of the Director-General, had developed a global arbovirus strategy. Workshops had been held in Cuba and Singapore, in which 225 participants from 65 countries had been trained. Cost-saving measures included a regional workshop on vector surveillance and control and on points of entry; and arbovirus surveillance in West Africa was being conducted jointly with the Special Programme for Research and Training in Tropical Diseases (TDR) and the WHO Health Emergencies (WHE) programme, supported by the West African Health Organization. A regional research platform on dengue had been established in the South-East Asia Region.

Guidelines had been issued for the diagnosis, treatment and prevention of **leprosy**, including management and prevention of disability, contact tracing and post-exposure prophylaxis. Digital training modules were available for health care workers. There had been a steady decrease in the number of cases over the past 3 years, although the grade-2 disability rate was falling more slowly than planned.

With regard to veterinary public health, indicators and reporting forms for **rabies**, **snakebite envenoming**, **taeniasis** and **echinococcosis** and a website for snakebite envenoming had been developed. Guidelines on neurocysticercosis and a diagnostic and treatment manual for echinococcosis were expected before the end of the year. A companion document to the NTD road map was being prepared on One Health. WHO had validated Mexico as the first country to have eliminated rabies as a public health problem. Mongolia had validated a diagnostic test for echinococcosis in dogs. Proposals were being prepared for a WHO antivenom stockpile, WHO target product profiles (TPPs) were being developed for snake antivenom products, and a roster of experts was being formed for a subgroup on envenoming.

Cross-cutting activities included the launch of the Diagnostic Technical Advisory Group (DTAG), with subgroups on specific diseases and cross-cutting topics. The DTAG had identified the priority diagnostic needs for all NTDs and the subgroups were also working on the development of target product profiles for prioritized use-cases.

The department had contributed to WHO activities on antimicrobial resistance, water, sanitation and hygiene (WASH), mental health, disability management and other areas. Planning forms had been prepared for nine WHO "global public health goods", equivalent to 22 products, which were being cleared by the Science Division.

The department had raised the issue of **racism** in WHO and the lack of a WHO policy and had provided ideas for a WHO response. The Director-General was to include anti-racism in WHO's initiative on diversity; within UCN, a working group led by the NTD department would contribute to shaping this aspect of the diversity initiative.

3.2 Impact of COVID-19 on NTD initiatives

In most countries, mass treatment and other community services had been suspended, and diagnosis, treatment, morbidity management, disability prevention and other health facility services had been interrupted and delayed by the COVID-19 pandemic. Monitoring and evaluation had been disrupted, and the manufacture, shipment and delivery of NTD medicines and consumables to and within target countries had been delayed, resulting in expiration of stocks.

Guidance had been issued on NTD interventions in the context of COVID-19 and also on community activities and maintaining essential health services. Considerations for restarting mass treatment, active case-finding and population-based surveys had been published in July, as a joint effort with the WHE programme. The impact of COVID-19 on NTD programmes had been predicted in collaboration with the NTD modelling consortium. Webinars on COVID-19 and NTDs had been held regularly since June and would continue through December 2020.

The department would follow-up with Member States and partners on implementation of activities and on stock balances and their expiry status in collaboration with regional and country offices; and with donors and manufacturers to ensure the supply of medicines and to discuss extension of their shelf-life. They would also work with WHE to include drug transport in existing emergency operations to address transport challenges.

The expected withdrawal of US Government funding might affect planning, and the COVID-19 pandemic might delay the return of staff from teleworking. At headquarters and in regional and country offices, NTD staff had been redeployed to work on COVID-19, recruitment of staff had been delayed, and many planned activities had been suspended, postponed or adjusted.

3.3 New departmental structure and staffing change

The Director described the changes to the structure of the NTD department and the new responsibilities of and reporting lines for staff (**Annex 3**).

3.4 Discussion

In response to questions, Dr Malecela explained that the rate of coverage of schistosomiasis with preventive chemotherapy was apparently low because the figure included adults in the total population requiring preventive chemotherapy. The current praziquantel donation was limited mainly to school-aged children in endemic areas. Due to the donation, the treatment coverage of school-aged children was 53% compared with 12.4% in adults. The procurement of medicine to treat adults in areas where warranted remained a challenge in many countries. The apparently low rate of coverage of STH was due to the increased denominator resulting from a decision to expand the age group targeted in India from 15 to 19 years.

One STAG member asked whether surveillance would be conducted of the effect of climate change on the prevalence and incidence of NTDs and other infectious diseases. The secretariat replied that a number of studies were under way in the Pacific, Caribbean and African regions. The STAG member also asked what effect the probable withdrawal of funding by the US Government would have on the department's activities. Dr Malecela replied that the effect would be drastic but not tragic; other donors were being sought, and some funds would be reattributed.

In answer to another question, she said that countries had received guidance on when to resume MDA, to be based on risk assessment and risk mitigation.

4. Perspectives from WHO regional offices

4.1 WHO Regional Office for Africa

4.1.1 *Expanded Special Project for Elimination of Neglected Diseases*

Dr M. Rebollo Polo described progress made in control of NTDs in the African Region. The countries most severely affected by COVID-19 were South Africa, Ethiopia, Nigeria and Algeria, in that order.

A survey had been conducted to determine the impact of the COVID-19 pandemic on implementation of NTD programmes, which had had a high response rate. The main concerns were cancellation or postponement of MDA, expiration of the half-life of medicines, postponement of disease-specific surveys and lack of treatment for LF and trachoma. Innovative means had been found for delivering MDA and other NTD interventions during the pandemic. Commonly cited means for overcoming challenges in re-starting MDA were to build community ownership and leadership for tailored approaches; increase use of online resources; and use extra funds provided for COVID-19 for NTDs through better high-level coordination. The WHO recommendations on re-starting MDA had thus been tailored for the African Region.

Disease-specific progress included the addition of treatment of adults in the schistosomiasis programme, monitoring drug efficacy for STH, progress in five countries in preparing dossiers for verification of elimination of trachoma as a public health problem, validation of elimination of LF as a public health problem in Malawi and consideration of stopping MDA for onchocerciasis in Burkina Faso. A tool had been made available for managing the Joint Application Package, which had been shown to increase quality and speed.

4.1.2 *Case management*

Dr Abate Beshah reported on a joint meeting in July 2019 on integration of case management and interventions for NTDs amenable to preventive chemotherapy. The meeting had emphasized coordination, strong country ownership, multisectoral collaboration and partnerships and agreed on regional goals, targets and priorities for a regional NTD strategy based on the global NTD road map 2021–2030. The goals included integration of case management with other NTD activities and advocacy for gender equity and rights in the spirit of “leaving no one behind”.

The COVID-19 pandemic had mainly affected staffing, with most of the NTD Programme Managers and WHO NTD Officers repurposed for the COVID-19 response and management of the supply chain, with associated border closures and travel restrictions in most countries. With regard to NTDs targeted for eradication, five countries including Angola had reported cases of dracunculiasis in the African Region, with the highest number in Chad, and 10 countries were using the yaws eradication strategy. Leprosy had been eliminated as a public health problem in all countries in the Region except Comoros. The numbers of cases of Buruli ulcer and leishmaniasis, which were targeted for control, had shown little change over the past 3 years. Data management should be strengthened for dengue and rabies. Several meetings had been held to discuss rabies, and a WHO position paper had led to new guidelines for African Member States. A report had been published on the WHO informal consultation on a framework for scabies control, and a roadmap for the prevention and control of snakebite envenoming had been launched in May 2019. A conference on mycetoma, with a training course, had been held in February 2019.

4.2 WHO Regional Office for the Americas

Dr Santiago Nicholls reported that the main achievements in the Region had been validation of the elimination of rabies as a public health problem in Mexico and delivery of IDA for LF to more than 500 000 people in Guyana. Brazil might be able to submit a dossier for validation of elimination as a public

health problem in 2021, after the last TAS3 had been conducted. As elsewhere, COVID-19 had affected MDA, surveys and technical support to countries, with reassignment of staff from both PAHO country offices and national programmes to support the response to the pandemic. Online training courses for the clinical management of dengue had been developed. The regional integrated vector control plan was advancing, with public health entomology on the agenda in many countries.

4.3 WHO Regional Office for the Eastern Mediterranean

Dr Supriya Warusavithana reported that the later start of the pandemic in the Region had allowed MDA to be conducted at the beginning of the year, so that expiration of stocked medicines had been avoided as much as possible. All countries were endemic for at least one NTD and the Region bore 76% of the global burden of cutaneous leishmaniasis. NTDs were re-emerging in some countries because of conflict and humanitarian emergencies.

The five NTDs currently targeted for eradication, elimination and elimination as a public health problem in the Eastern Mediterranean Region were dracunculiasis, onchocerciasis, schistosomiasis, LF and trachoma, and the Region was accelerating progress. The number of cases of cutaneous leishmaniasis appeared to be increasing in many countries, perhaps due to better surveillance; however, the numbers of cases of mycetoma had been lower in 2019 than in 2018, and the disease was reported only from Sudan. Elimination of LF as a public health problem had been validated for Yemen in 2019. MDA for LF was under way in Sudan and for schistosomiasis in Egypt, Somalia, Sudan and Yemen. Programmes against STH, trachoma and onchocerciasis were continuing, and Iraq was preparing a dossier for validation of elimination of trachoma as a public health problem. The burden of leprosy in the Region and of grade-2 disability had recently shown decrease. Technical support to countries included coordination with medicine donation programmes, capacity-building (including online courses), resource mobilization and establishment of two regional WHO collaborating centres.

The challenges were unmet targets (certification of dracunculiasis-free status in Sudan and validation of elimination of trachoma as a public health problem in Iraq, Saudi Arabia and Tunisia); heavy dependence on donors for NTD programme implementation; no medicine donations or support for some NTDs with a high burden, such as cutaneous leishmaniasis, rabies and dengue; inadequate attention to NTDs such as snakebite envenoming, mycetoma, scabies and chikungunya; and complex security situations and emergencies that impeded programme implementation and resulted in re-emergence of some NTDs.

4.4 WHO Regional Office for Europe

Dr E. Gasimov listed dengue, chikungunya, leishmaniasis, STH, rabies, echinococcosis and leprosy as their focus of work. Capacity-building had included technical guidance and training of 700 specialists. National NTD-related plans and guiding documents had been developed or updated, and surveillance had been improved, resulting in better-quality, more completely reported data. Collaboration with the European Centre for Disease Prevention and Control, the World Organisation for Animal Health, the European Mosquito Control Association and VectorNet (European Network of Medical and Veterinary Entomology) had been established or strengthened. Nine countries had been provided with medicines for treatment and with tests for diagnosis of leishmaniasis; over 4.2 million school-age children had been covered by preventive chemotherapy against STH in three countries; and medicines for treatment of Chagas disease, fascioliasis and leprosy were provided to countries in need. Work which had initially focused on Central Asia and South Caucasus was being expanded to include Albania, Croatia, Greece,

Kosovo¹ and Slovakia. The COVID-19 pandemic had necessitated reassignment of staff of the national programmes, and some activities had been postponed. Nevertheless, efforts had been made to ensure that countries' capacity to detect and treat NTDs was sustained; funds for intercountry activities had sometimes been reallocated to country activities. Dr Gasimov then mentioned that the transformation process had started in the Regional Office, which would result in a reshaping of its organization and functions.

4.5 WHO Regional Office for South-East Asia

Dr M. Jamsheed reported that the COVID-19 pandemic had affected the planned activities of the Regional Office only slightly, except that MDA against LF in Myanmar had been discontinued. Nevertheless, the work had been restructured, with staff reassignments and redirection of funding; community activities had not resumed. Poor coverage had been recorded for LF and STH in India, and, although elimination of trachoma as a public health problem had been validated in Myanmar, work against trachomatous trichiasis was still required in India. LF was still a huge problem in India and Indonesia. Some online training had been conducted through webinars and e-learning, particularly for leprosy, and a course was being developed on leprosy.

4.6 WHO Regional Office for the Western Pacific

Dr A. Yajima reported that 15 NTDs were endemic and of public health importance in 28 countries and areas in the Western Pacific Region. In most of the NTD-endemic countries in the Region, the COVID-19 pandemic was more or less under control as a result of the prompt and strict travel restrictions, border controls and quarantine measures except some delays in shipment of goods and implementation of large-scale population interventions. The Regional successes included elimination of LF as a public health problem in 10 of 22 endemic countries, of trachoma in 3 of 11 endemic countries and of schistosomiasis in 3 of 4 endemic countries. Four countries had institutionalized deworming in schools and extended the target population to include women of reproductive age. Other activities included strengthening of multisectoral collaboration, especially with Education, WASH and animal health sectors. The recent regional NTD programme managers meeting had discussed regional issues and challenges such as continued low MDA coverage due to MDA fatigue in some areas, persistent poor hygiene, wastage of donated medicines in some countries, management of serious adverse events, a continuing lack of standardized diagnostic tools and lack of surveillance after completion of the validation of elimination in many countries. To address these challenges and strengthen NTD programme towards acceleration of control and elimination of NTDs, the Regional Action Framework for Control and Elimination of NTDs in the Western Pacific had been endorsed by the Regional Committee in 2018, with four strategic priorities: to catalyse multisectoral action; to enhance interventions and delivery; to engage and empower communities; and to measure impacts and generate evidence.

¹ In accordance with Security Council resolution 1244 (1999).

5. Update on NTDs and WHO governing bodies

Dr A. Gabrielli, NTD department, reported on topics considered by WHO governing bodies since the previous meeting. The Executive Board had recommended that the NTD road map 2021–2030 be developed and submitted to the World Health Assembly, after broad consultation. As the Seventy-third Assembly had been abridged because of the COVID-19 pandemic, consideration of the road map had been deferred to the short Assembly to be held in November 2020; a draft decision to hold a World NTD Day had also been deferred. The first World Chagas Disease Day had been established by WHA72 in May 2019, and observed virtually on 14 April 2020.

Dr Gabrielli said that additions to the NTD portfolio were currently regulated by WHO on the basis of a guidance note issued by STAG in 2016, which defined criteria for inclusion, categories of diseases and the process for reviewing candidates. Category A diseases were those that affected people living in poverty, caused important morbidity and mortality and justified a global response; were prevalent primarily in tropical and sub-tropical areas; were immediately amenable to broad control; and were relatively neglected in research. Category B diseases were not immediately amenable to broad control, and advocacy and research were warranted. The process required that proposals from Member States be submitted to WHO through country and regional offices, accompanied by a dossier of evidence that the disease met the criteria. The STAG-NTD reviewed the status of each disease every 3–5 years. Having reviewed recent additions, he said that the issues for discussion were whether new diseases should be considered without a funded mandate to WHO, and the approach to diseases in category B.

6. The 2021-2030 NTD road map: finalization, WHA resolution, launch and roll-out

Regarding finalization of the NTD road map 2021–2030, Dr G. Biswas recalled that STAG-NTD had reviewed the draft and approved the three fundamental shifts, from an emphasis on actions taken to the public health impact of interventions, from disease-specific programmes to cross-cutting approaches and from programmes based on partner support and donor funding to country ownership and financing. The four categories of cross-cutting themes were across NTDs, within national health systems, among stakeholders and strengthening national health systems and support for NTD programmes. The draft road map had been revised in accordance with suggestions from Member States and would be considered by the Health Assembly in November 2020; WHO had already approved it as a “global public health good”, which made it a priority in the Organization’s work.

Dr G. Biswas described five documents that were being prepared that would be complementary to the road map. They comprised a framework for sustainability, an investment case, a monitoring and evaluation framework, an updated global strategy on WASH and NTDs and an NTD research portfolio.

Mr A. Moloo reported that the NTD “knowledge management team” had been conducting advocacy and communication through webinars. In January, the Department had organized an online meeting with communications colleagues from partner organizations to discuss NTD communications and advocacy in the run-up to the anticipated launch of the new road map during the Commonwealth Heads of Government Meeting (Kigali, June 2020). This meeting had set up a WHO-led working group to coordinate communication activities with the numerous partner organizations. Besides the planned launch of the road map, key events were identified for the whole of 2020. However, due to the pandemic and a global lockdown, the Kigali event had been postponed. Despite the disruptions caused by COVID-19, the Department continued to engage with countries, regions, partners, stakeholders and the public to sustain collaboration on the road map. Instead of a road map launch, a series of webinars had been initiated on 17 June to prompt discussions on the main themes and measures envisaged in the new road map. The inaugural webinar had been followed by more than 1400 people, and 130 partners were involved. Further webinars were planned until the end of the year. The webinars

continued to engage communities well beyond the NTD community, with an average of 500 people participating virtually through Zoom and other live-streaming platforms. The knowledge management team had continued its other information-sharing activities, including the regular posting of NTD news on the departmental website.

7. Companion documents to the 2021–2030 NTD road map

The Director said that the companion documents mentioned by Dr Biswas might be supplemented by one on the “One Health” strategy and one on the Global vector control response 2017–2030. She thanked all the partners that had made development of the road map possible: the Bill & Melinda Gates Foundation (Katey Owen), the United States Agency for International Development (Emily Wainwright), the Task Force for Global Health (Pat Lammie and Joanna Pritchard), RTI (Katie Zoerhoff), Sightsavers and the Crown Prince’s Court of Abu Dhabi.

In response to a comment by one member that youth, perhaps a young person with an NTD, should be represented on the STAG, the Director said that such representation could be ensured in two ways: by encouraging young people with the necessary credentials to apply for membership and by inviting representatives of youth organizations as observers. Other members commented that patients with some NTDs, such as Chagas disease and leprosy, had influential associations, which could propose candidates.

Dr G. Biswas presented the companion document on a sustainability framework, the aim of which was to provide a framework that described how to detect gaps in the sustainability of NTD services and identify outcomes and activities to address the gaps. The online survey had highlighted the importance of national and local commitment and leadership and governance of health systems as determinants of sustainability. An “ecological model” was proposed that sustainable NTD services depended on the political economy, epidemiological understanding and the social context. It could be built through cross-cutting approaches linking the health systems’ building blocks and the non-health sector towards meeting targets and milestones for both NTDs and universal health coverage (UHC). Dr Biswas outlined the process whereby a strategy for sustainable NTD interventions could be linked to other health system plans and strategies, beginning with the entry point of NTDs into the system. The framework included comments from participants in a webinar and interviews. Annexes would cover the findings of the consultation, an outline of an integrated NTD sustainability strategy, suggested questions and answers, a country case study and indicators of its effectiveness.

Dr X. Huang described the companion document on the investment case. NTDs remained less well funded by donors and endemic countries than other infections and issues, and the road map set ambitious targets for 2030, which would require incremental resources. In phase 1, a global investment case would be developed, which would offer economic arguments for all 20 NTDs, estimates of the investments required for critical gaps (identified on the road map 2021–2030’s heat map) and assessment of the feasibility of innovative financing in attracting new partners. In phase 2, countries would be supported with guidance and a tool in developing tailored investment cases for NTDs programmes that met national and subnational needs. Greater integration of investments in NTDs would improve the return on investment and have spill-over effects. Under the global call for increasing the primary health care budget by 1% of gross domestic product, the needs to increase domestic investment on NTD tackling should be put forward as an equity indicator for primary health care coverage and be given appropriate financial attention. Initially, four country cases would be prepared: for francophone Africa, anglophone Africa, the WHO Region of the Americas and the WHO South-East Asia Region. Difficulties that had been met in the analysis and in structuring the report had included limited evidence of the impact of cross-cutting investment, as most of the available evidence was for the cost-effectiveness of disease-specific investments. Although the heat map identified several

common gaps, the system must apply to all 20 NTDs and also to the specific aspects of each disease. Evidence was also lacking on value for money. Although “best-buys” for NTD investment were well documented, the evidence for investment in NTDs and for innovative interventions and approaches was lacking.

In answer to a question, Dr Huang said that the withdrawal of funding by the US Government had had limited impact on phase 1 of the project; alternative funding was being sought for phase 2. Another participant said that emphasis should be placed on sustaining existing investments and current gains while addressing gaps.

Dr P. Mbabazi presented the companion document on the monitoring and evaluation framework. She said that the framework would provide measurements to demonstrate alignment of the NTD programme with Organization-wide priorities, which were the NTD road map 2021–2030, the Sustainable Development Goals, UHC, primary health care and the WHO General Programme of Work. The aim was to track trends, measure impact, ensure integration and mainstreaming onto WHO platforms and into national health information systems, ensure country ownership of its NTD information systems and promote use of new technologies. The framework would address data fragmentation by consolidating WHO’s data repositories, portals and datasets and would also reduce the burden of data collection on countries. Timely, reliable, actionable data would allow monitoring of the impact of interventions and the provision of support when necessary. The framework would include a conceptual framework, road map indicators, implementation processes and pathways and research priorities. The road map introduced quantitative and qualitative indicators and set ambitious targets for population health, through accelerated disease-specific programmes and cross-cutting approaches to increase effectiveness and sustainability. Road map indicators would be reported by countries to WHO through established reporting channels, with periodic gap assessment on heat maps. A compendium of indicators would be assembled, and terminology and methods of measurement and estimation would be harmonized. WHO had already set norms and standards for data collection, use and reporting; data would be managed and processed at global or department level into a single database. Data would be disseminated globally through the NTD dashboard and mobile app and the NTD annual report. Future improvements would include a better tool for assessing gaps, use of the heat map to harmonize criteria for cross-cutting approaches, country ownership and sustainability and standardized consultation and stakeholder engagement. Quantitative assessment would be improved by using cross-cutting indicators such as out-of-pocket expenditure and gender mainstreaming. Other innovations might be use of “big data”, artificial intelligence and concurrent analysis with databases such as for education and WASH.

In the ensuing discussion, one member suggested that the heat maps be accompanied by textual explanations. In response to another comment, Dr Mbabazi said that consultations would be held with WHO regional offices while drafting monitoring and evaluation frameworks; the comments would be taken into account in the final draft.

Dr S. Boisson described an update of the global strategy on WASH that WHO had published in 2015 (2), which would support the NTD road map. She recalled that the cross-cutting target on WASH was to “achieve universal access to at least basic water supply, sanitation and hygiene in areas endemic for NTDs by 2030”. The new version would have short sections on One Health, vector-borne diseases and climate change and provide short case studies for each strategic objective. Momentum had continued to grow during the previous 5 years through representation at key events, peer-reviewed publications, roundtable discussions and technical working groups in several countries. Joint monitoring frameworks had been developed in several countries to encourage collaboration. A WASH-NTD toolkit had been developed, which was used to varying extent in more than 15 countries in sub-Saharan Africa, and a research agenda was being drawn up. WASH was being integrated into large-scale NTD programmes, and some countries had embedded collaboration in their programmes, for example by appointing dedicated coordination staff (Kenya) and including a WASH module in training packages for MDA

(Uganda). Ethiopia had established a national planning and reporting framework on WASH–NTDs. The new global strategy would be released after the launch of the road map.

One participant said that a possible legacy of the COVID-19 pandemic might be better hand hygiene; the challenge would be to maintain the practices. Another participant added that other positive fallout might be more efficient diagnostic platforms, data systems and partnerships.

Dr A. Solomon, addressing the companion document on the research portfolio, said that a list of NTD research priorities had been denoted a global public health good. In 2018, WHO had analysed research prioritization exercises conducted between 2002 and 2017 by its own technical units, and published the results in *Health research policy and systems* (3). In the light of the findings of this review, in 2020, WHO's Science Division had provided systematic guidance for technical units on how to plan, implement, evaluate and publish research priorities, with a formal process now required to facilitate publication. For research priorities described in the 2021–2030 NTD road map, the approach was not consistent between diseases and in any case had not been sufficiently well documented to meet the requirements now set out by WHO. He asked STAG for advice on the methods to be used for development of a comprehensive list of NTD research priorities and also to promote the process in their own networks.

8. Global framework for multi-disease elimination

Dr A. Ball, Senior Adviser, Office of the Assistant Director-General, Universal Health Coverage – Communicable and Noncommunicable Diseases (UHC/UCN), noted that more than 30 diseases had global targets for elimination, including four for eradication, this decade. It was a major challenge for countries to manage multiple vertical disease elimination programmes and initiatives at the same time, and the terminology, criteria and processes for achieving and validating elimination needed to be clarified. Several global and regional frameworks existed for elimination of more than one disease, including the NTD road map 2021–2030, the global vaccine action plan and the Global vector control response 2017–2030.

It was incontestable that achieving elimination targets resulted in major benefits; however, the targets, criteria and definitions of control, elimination and eradication differed, as did guidance on processes and independent review processes for confirmation. The objectives of the multi-disease elimination framework were to guide countries and regional organizations in developing integrated elimination strategies for many priority diseases through a people-centred approach and based on global agreements. Countries would be encouraged to identify programme synergies and optimize effectiveness and efficiency through integrated or coordinated approaches to both multi-disease elimination and other health priorities. Other objectives were to harmonize the terminology, definitions and processes for elimination globally; provide an overview of all the diseases currently targeted for elimination or eradication through WHO or other United Nations commitments or processes; and outline the potential roles and responsibilities of countries, WHO and partners in multi-disease elimination. The possible structure of a global framework for multi-disease elimination would be a section on disease elimination as part of health for all, including the context of and alignment with other frameworks, principles and measures for disease control, elimination and eradication; a framework for national action, including strategic information and research for better decision-making and accountability, planning and advocacy, definition of services, intervention and benefits packages, strengthening health and community systems to deliver integrated, equitable services and financing; and global action for sustained disease elimination, requiring leadership, meeting global commitments and mobilizing partners, setting standards and validation processes, governance and adaptation of the multi-disease elimination framework to different regions and contexts.

Information on targets, interventions, validation and governance would first be compiled, with standardization of terminology, definitions and elimination criteria. Policy and normative guidance

would be provided for countries on integration and linkages among different disease elimination programmes, with standardization of validation and governance. Standardized terminology and processes would facilitate integration of programmes and services and coordination among diseases. It would also increase efficiency in delivering several programmes at the same time and promote and operationalize people-centred services and the principles of UHC. Disease-specific elimination strategies would still be critical to guide national, regional and global programmes and activities, including in setting targets, defining evidence-based packages of interventions and monitoring progress towards achievement of disease-specific targets. The challenges would be potential difficulty in reaching consensus internally and externally and among regions and disease programmes and a risk of deflecting the focus from disease-specific programmes and investments.

In answer to a comment on the difficulty of validation for several diseases at the same time, Dr Ball said that validation processes would be linked, which would also be an advantage for diseases for which there was no monitoring or validation process. It was suggested that the framework be aligned with the UHC benefits package. Other participants raised the difficulty of diagnosing syndromes and the different kinds of meningitis. Structural interventions such as improved housing, access to vaccines and safe water should be considered. One speaker said that such a programme should not detract from countries' work on individual diseases. The challenge of "travelling the last mile" to achieve elimination and eradication targets had been raised by a number of people, as it required intensified, focused effort and different strategies. Those issues should be highlighted in the framework, with post-elimination monitoring and maintenance of elimination.

9. Global Arbovirus Initiative and policy-making for vector control

Dr R. Velayudhan said that hundreds of thousands of cases of disease due to arboviruses had been reported in 2019. The global number of cases of dengue had risen from fewer than 1000 in the 1950s to nearly 2 million by 2018 and was straining health systems during the COVID-19 pandemic. The Health Security Council, chaired by the Director-General, had recommended global, national and international political engagement, raising the visibility of the problem through communications and programmes, a call for a multisectoral response in view of the link to climate change and increased urbanization and increased investment from Member States and the donor community.

The pillars of the integrated arbovirus strategy to combat epidemics due to mosquito-borne viruses were:

- (i) comprehensive risk monitoring and early detection, by enhancing epidemiological surveillance in areas at risk of arbovirus transmission to ensure systematic reporting during the COVID-19 pandemic, with UNICEF funding and guidance to detect the emergence or re-emergence of *Aedes*-borne arboviruses;
- (ii) ensure a rapid response to outbreaks, and prevent spread by assessing vector control for *Aedes* during the COVID-19 pandemic to determine the risk of transmission and provide yellow fever vaccination in areas at risk;
- (iii) develop laboratory systems by making an inventory of current capacity in regions and countries to diagnose and monitor arbovirus circulation, rebuild capacity in regional networks and evaluate diagnoses;
- (iv) reduce morbidity and mortality by updating the clinical guidelines for arboviruses, achieving global consensus on the guidelines and designing online training modules in several languages to train medical professionals in detection and case management;
- (v) promote research and innovation by updating global research agendas on arboviruses, including guidance on evaluating and using new technologies for vector control; and

(vi) enhance partnerships.

Policy for vector control interventions should be based on horizon scanning and developing or endorsing “preferred product characteristics” and “target product profiles” (TPPs) to stimulate innovation, guide product development and ensure predictability. WHO policy recommendations should be based on evidence from manufacturers and research groups that demonstrated the public health value of an intervention. Uptake should be optimized by disseminating policy guidance and monitoring its use. A high-level pathway for policy on new interventions and strategies would involve determining the class and pathway towards prequalification and the choice of study design.

In answer to a question from the Chair, Dr Velayudhan said that remote sites would be prioritized, with sentinel reference laboratories for advanced testing, although capacity would also be built locally. Ideally, laboratory confirmation, entomological surveillance and epidemiological research would be integrated. One member commented that *Ae. aegypti* was transmitted in every urban area and could transmit any virus.

10. Feedback from STAG working groups and the Diagnostic Technical Advisory Group

Dr D. Dagne said that preparation of the NTD road map had required reassessment of diagnostic requirements for some of the diseases in the WHO NTD portfolio. The department had therefore, with partners, set priorities for new diagnostics or platforms and mobilized support for the development of priority diagnostics. It had also created the DTAG, which, at its first meeting, had used an algorithm to identify the priority diagnostic needs for all the NTDs. It had also used an earlier Delphi technique to recommend the establishment of six disease-specific and three cross-cutting subgroups. The DTAG thus set priorities for diagnostics, coordinated creation of a TPP for each priority, prepared a position or policy statement and defined the strategy and access. It established a use case and disease- or category-specific subgroups for specific tasks, such as target product characteristics. The purpose of the subgroups was to prepare draft TPPs for use cases in their specific disease or category. They compared use cases with current diagnostic capability and prepared draft TPPs that would be aired for public consultation then pass through DTAG and a WHO process for formal approval. The cross-cutting subgroups comprised surveillance platforms (including for One Health, verification of elimination and post-elimination surveillance); clinical diagnosis, imaging and microscopy; and manufacturing and regulatory pathways.

The subgroup on LF had already prepared two draft TPPs for use cases and posted them for public consultation, a test for stopping MDA of IDA and a test to determine whether recrudescence had occurred in defined geographical areas. For HAT, the subgroup had identified three use cases, in order of priority: a test that could be used in peripheral health facilities, a test for gambiense HAT to identify individuals with suspected but unconfirmed infection who could be treated without parasitological confirmation and a high-throughput test to assess infection in elimination and post-elimination contexts. The OTS had submitted a TPP for an in vitro test for use in cluster surveys to map onchocerciasis in hypo-endemic areas and an in vitro test for use in cluster surveys to decide on stopping MDA and in post-treatment surveillance. The schistosomiasis subgroup had reviewed existing TPPs and materials and agreed to conduct a survey to identify priority TPPs for monitoring and evaluation, stopping MDA and surveillance. The STH subgroup had conducted an analysis of diagnostics, including various programmatic use case scenarios. They planned to review the inventory of TPPs and to determine the impact of control initiatives on STH prevalence and intensity in a population. The subgroup on skin NTDs had reviewed existing diagnostics, those under development and those required for Buruli ulcer, cutaneous leishmaniasis, leprosy, mycetoma, scabies and yaws. Each disease community was asked to decide whether TPPs were necessary and, if so, to define use cases and draft TPPs. A sub working team was being formed under the skin NTDs subgroup to look into use-cases and

development of TPPs for skin NTDs. The second meeting of the group would be held on 13 October 2020.

The Director, in response to a query, confirmed that a funding group was being identified to support the work of the DTAG and broader diagnostics, while ensuring that there was no replication of work. A partner asked whether the efficacy of ivermectin was being monitored and was informed that it had been hypothesized that the medicine was active at lower doses in vivo by dampening overreactive immune responses.

Dr A. Montresor reported that the STAG working group on drug efficacy had met in March 2020, where it was reported that 25 countries with more than 5 years' experience in preventive chemotherapy had conducted trials of the efficacy of anthelmintic medicines, comprising seven trials on albendazole, 10 on mebendazole and eight on praziquantel. In 2019, one trial in Cambodia had shown unsatisfactory results of mebendazole against hookworm; however, the result might have been due to selection of *Ancylostoma duodenale*, which is less sensitive to benzimidazole than *Necator americanus*. A genetic investigation was under way, and trials would be conducted with albendazole in the same area. The meeting decided to prepare a new edition of the WHO manual on testing the efficacy of albendazole, mebendazole and praziquantel and that trials of drug efficacy would be conducted in 10 additional countries in 2020–2021. The full report of the meeting would be posted on the NTD web site.

Responding to questions, Dr Montresor said that the paediatric praziquantel consortium was investigating sources of financing for the producer and designing a trial to monitor the egg reduction rate. A partner added that the trial was addressing the efficacy of ivermectin in the short term. The drug was not donated by Merck for strongyloidiasis, although it was effective, and a generic form would be tested in a pilot study in Ethiopia.

Referring to the discussion on addition of further diseases to the portfolio of the NTD department, one STAG member asked whether the criteria for doing so should be changed to cover conditions such as scabies, snakebite envenoming and Zika virus disease. The Director said that lack of funding for work on additional NTDs meant that funds to cover them had to be taken from existing projects. She suggested that STAG approve a plan for the department that was consonant with the road map, with interim periods in which no new diseases were added to the department's workload. Speakers agreed that the criteria for including diseases in category B should be reviewed.

One member raised the problem of lack of vaccine and immunoglobulin for post-exposure prophylaxis for rabies in some countries. One partner suggested that the issue be referred to the Supply Chain Forum.

One speaker proposed that the department estimate the extent to which work on NTDs had been disrupted by the COVID-19 pandemic and provide technical guidance on the maintenance of services.

11. Revised terms of reference for STAG

The Director pointed out that the NTD road map 2021–2030 indicated a shift in emphasis for the work of the department and proposed that the terms of reference of the STAG be revised accordingly. The architecture of the working groups as agreed in 2019 reflected the goals of the road map, as did the technical working groups and the expert advisory panels for specific diseases. Work was under way with the Science Division to harmonize the groups that had been formed throughout WHO. The terms of reference agreed in 2011 might be revised by adding other areas of expertise to the Group, such as the social sciences, data analysis and communication; addition of a representative of youth and of people disabled by an NTD had been proposed, and diversity should be emphasized.

Members proposed the addition of further fields of expertise, such as hydrology, zoonotic diseases and public health planning. The Director suggested that an appendix to the terms of reference could provide

an exhaustive list of professions, although she reminded the meeting that the STAG was limited to 12–20 members.

12. Partners' statements

Dr M. French, RTI International, said that his organization had worked with the NTD department on the road map and looked forward to providing input on the companion documents. During the COVID-19 pandemic, they were conducting research on standard operating procedures for national ministries of health, with emphasis on operationalization, such as conducting MDA and surveys on LF and other diseases.

Dr W. Harrison, Schistosomiasis Control Initiative, commented that her group was analysing how work on NTDs contributed to achievement of the Sustainable Development Goals.

Ms T. Elphick-Pooley, Uniting to Combat NTDs, commended the initiative of the NTD department to combat racism at WHO. She said that her organization would support implementation of the road map by advocating the maintenance of current resources. She welcomed the proposal to include young people and patients with NTDs on the STAG.

A statement from Mr Geoff Warne, CEO of the International Federation of Anti-leprosy Associations was read out, which highlighted the problem of stigmatization and of the effect of the COVID-19 pandemic on work in the field. Guidance was required on many aspects other than conducting MDA.

Mr W. Lancaster, END Fund, said that the Fund's strategic plan to 2030 was aligned with the NTD road map 2021–2030. The Fund planned to make significant contributions to work on the five NTDs amenable to preventive chemotherapy and to improve targeting to communities.

Dr N. Strub Wourgaft, Drugs for Neglected Diseases *initiative*, congratulated the department on its work and assured them that support would be maintained.

13. Conclusions and recommendations to the Director-General

The Strategic and Technical Advisory Group for Neglected Tropical Diseases (STAG-NTD):

1. **Welcomes** the Director's report describing the significant progress made against NTDs since the previous meeting, in April 2019, which includes:
 - delivery of at least one NTD intervention to 1.05 billion people in 2019, including more than 1 million life-saving treatments delivered through specialized individual case management;
 - validation of elimination as a public health problem of lymphatic filariasis, human African trypanosomiasis, rabies or trachoma in six countries;
 - new donations of niclosamide and praziquantel (to treat taeniasis and cysticercosis) and of benznidazole and nifurtimox (for paediatric treatment of Chagas disease) secured in 2020, adding to the range of donated medicines;
 - continued reductions in the global incidence of gambiense human African trypanosomiasis, the global prevalence of lymphatic filariasis and trachoma and the incidence of visceral leishmaniasis in Bangladesh, India and Nepal;
 - release of a much-needed mobile app to support diagnosis of skin NTDs; and
 - advocacy and information-sharing for NTD activities since the beginning of the COVID-19 pandemic.
2. **Expresses** its appreciation to partners, donors and stakeholders for their contributions to the global NTD agenda.
3. In line with the strategic shift towards the more holistic, cross-cutting approaches identified in the 2021–2030 NTD road map, **recommends** acceleration of interventions that may be in danger of falling behind for some NTDs, in particular:
 - (a) for **onchocerciasis**: to accelerate development and implementation of protocols for elimination mapping by convening a fourth meeting of the Onchocerciasis Technical Advisory Group;
 - (b) for **scabies**: to implement rapid mapping (as set out at the 2019 WHO informal consultation (4)) in all WHO regions to define areas of high endemicity for which mass drug administration might be recommended and support scaling-up of mass drug administration by national control programmes in endemic districts, in line with NTD road map 2021–2030 targets; interventions might be scaled up in stand-alone programmes or with measures against other diseases, depending on local epidemiology and public health priorities; important building blocks are likely to be inclusion of scabies in national universal health coverage guidelines and identification of potential sources of funding for mapping and for use of ivermectin and topical treatments;
 - (c) for **dengue** and control of *Aedes* spp. mosquitoes: to engage with innovators in developing new, sustainable interventions; to collate information on new control tools and provide guidance on their use; and to promote integration of control tools of proven effectiveness into existing strategies;
 - (d) for **schistosomiasis**: to provide clear, evidence-based definitions of “elimination as a public health problem” and “elimination” (interruption of transmission) in the framework of the NTD road map 2021–2030; to develop global guidance and specific advice to programme managers on sustaining progress with available interventions; and to continue engagement with the paediatric praziquantel consortium to ensure that preschool-age children in need have access to the paediatric formulation of praziquantel, once it is licensed; the secretariat and partners should work

together in the context of the NTD road map 2021–2030 to address the alarmingly low coverage of praziquantel in adults; establishment of a technical advisory subgroup on schistosomiasis would be useful in addressing specific issues with regard to this NTD;

(e) for **yaws**: to evaluate the effectiveness of treating entire communities with azithromycin and monitor the emergence of macrolide resistance when this intervention is delivered at scale;

(f) for **rabies and snakebite envenoming**: to include consideration in the deliberations of the NTD Supply Chain Forum of delivery of rabies immunoglobulin and human vaccine for post-exposure prophylaxis and of snakebite antivenom immunoglobulins to individuals in need; and

(g) for **visceral leishmaniasis**: to invite Member States in the South-East Asia Region, where the disease is targeted for elimination as a public health problem, and relevant stakeholders to ascertain local transmission and to assess the endemicity status of non-endemic areas from which new cases are being reported, as an essential step towards validation of elimination as a public health problem. To work with partners to secure quality-assured, affordable generic products for visceral leishmaniasis and coordinate procurement among major procurers, leishmaniasis programmes and suppliers.

4. **Recommends** that NTD strategic interventions at the human–animal interface, such as dog rabies vaccination, be strengthened through adoption of the One Health approach to address health risks at the source and assure the sustainability of control and elimination.
5. To ensure that national programmes and the WHO secretariat optimize progress against the current group of 20 diseases and disease groups labelled as NTDs, **recommends**:
 - that the focus of the NTD department be maintained at least until 2023 on the plan set out in the 2021–2030 NTD road map;
 - that consideration for inclusion of any new diseases into the NTD portfolio be deferred until 2023 at the earliest, with subsequent review every 3 years; and
 - that the description of category B diseases be amended to make clear that diseases in that category will not require the WHO secretariat to make a specific work plan.
6. **Acknowledges** that people affected by NTDs and young people are critical stakeholders in the global NTD community and **recommends** inclusion of representatives of those groups on STAG-NTD, either as members or as official observers, and also in other global and regional groups dedicated to promoting NTDs.
7. **Acknowledges** the importance of the five companion documents of the NTD road map 2021–2030 in promoting and coordinating sustainability, investment, monitoring, evaluation, implementation of WASH and research on NTDs and in supporting cohesiveness in this diverse group of topics and **recommends** that the companion document entitled Investment case call for maintenance of at least current levels of investment in NTD programmes; WHO and partners should make greater efforts to convince health ministries of NTD-endemic countries to dedicate funds for NTDs.
8. **Lauds** the anti-racism and diversity initiatives within WHO, such as those recommended by the NTD department.
9. **Welcomes** WHO’s initiative to develop a global framework for multi-disease elimination but cautions that the initiative should not interfere with countries’ work on individual diseases; current momentum should be sustained and gaps addressed simultaneously.

10. **Recommends** that the secretariat investigate the effects of climate change and other environmental changes on the prevalence and incidence of NTDs and other infectious diseases, including by modelling, for example by extending projects already being implemented in the Pacific, the Caribbean and Africa to other regions and areas.
11. **Recommends** that programmes learn from experience in the context of the COVID-19 pandemic to strengthen the sustainability of NTD programmes, including: innovative methods of delivering mass treatment, integrated vector management and other interventions; management of logistics and meetings; high-level coordination of funding for COVID-19 and for NTDs; advocacy for principles of water, sanitation and hygiene; platforms for sharing diagnostics; data collection systems; partnerships and further research on the emergence and re-emergence of diseases at the animal–human interface.
12. **Recommends** that, in the context of the COVID-19 pandemic, communities be engaged by innovative methods, such as social media platforms, to achieve the goals in the NTD road map 2021–2030.
13. **Recommends** that the impact of the COVID-19 pandemic on NTD programmes at global, regional and country level be:
 - documented by quantifying and monitoring the disruption caused by and the impact of COVID-19 on NTD programmes and activities; and
 - mitigated by:
 - maintaining or resuming health services for NTDs, as indicated in the interim guidance issued by WHO; and
 - strengthening advocacy and information-sharing for continuous support by partners, stakeholders and donors.
 - mitigated by:
 - maintaining or resuming health services for NTDs, as indicated in the interim guidance issued by WHO (5–8); and
 - strengthening advocacy and information-sharing for continuous support by partners, stakeholders and donors.

14. Closure

After the customary exchange of courtesies, the meeting was closed at 16:00 on 17 September 2020.

References

1. Global programme to eliminate lymphatic filariasis: progress report, 2019. *Wkly Epidemiol Rec.* 2020;95:509–24 (<https://apps.who.int/iris/bitstream/handle/10665/336185/WER9543-eng-fre.pdf>).
2. Water, sanitation and hygiene for accelerating and sustaining progress on neglected tropical diseases. A global strategy 2015–2020. Geneva: World Health Organization; 2015.
3. Terry RF, Charles E, Purdy B, Sanford A. An analysis of research priority-setting at WHO – how mapping to a standard template allows for comparison between research priority-setting approaches. *Health Res Policy Syst.* 2018;16:116.
4. WHO informal consultation on a framework for scabies control. Meeting report. Manila, 19-21 February 2019. Geneva: World Health Organization; 2020 (<https://www.who.int/publications/i/item/9789240008069>).
5. COVID-19: WHO issues interim guidance for implementation of NTD programmes. Geneva: World Health Organization; 2020 (https://www.who.int/neglected_diseases/news/COVID19-WHO-interim-guidance-implementation-NTD-programmes/en/).
6. Community-based health care, including outreach and campaigns, in the context of the COVID-19 pandemic. Interim guidance May 2020. Geneva, New York: World Health Organization, International Federation of Red Cross and Red Crescent Societies, United Nations Children's Fund; 2020 (<https://www.who.int/publications-detail/community-based-health-care-including-outreach-and-campaigns-in-the-context-of-the-covid-19-pandemic>).
7. Maintaining essential health services: operational guidance for the COVID-19 context. Interim guidance 1 June 2020. Geneva: World Health Organization; 2020 (<https://www.who.int/publications/i/item/covid-19-operational-guidance-for-maintaining-essential-health-services-during-an-outbreak>).
8. 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://www.who.int/publications/i/item/WHO-2019-nCoV-neglected-tropical-diseases-2020-1>).

Annexes

Annex 1. Agenda

Day 1. Open session

Time	Topic (including discussion time)	Presenter
13:00–13:10	Welcome	Dr REN Minghui, ADG/UCN
13:10–13:15	Administrative matters, including appointment of rapporteurs	Chair
13:15–13:20	Commemoration of Professor Marleen Boelaert and Dr Ricardo Thomson	Chair
13:20–14:00	Director's presentation <ul style="list-style-type: none">• Progress and challenges• New departmental structure	Dr Mwele MALECELA
14:00–14:45	Perspectives from WHO regional offices	Regional NTD focal points
14:45–15:00	Discussion	
15:00–15:15	Update on NTDs and WHO Governing Bodies	Dr Albis GABRIELLI
15:15–15:45	The 2021–2030 NTD road map: finalization, WHA resolution, launch and roll-out	Road map and knowledge management teams
15:45–16:00	Open floor discussion	Chair

Day 2. Open session

Time	Topic (including discussion time)	Presenter
13:00–13:30	The 2021–2030 NTD road map: finalization, WHA resolution, launch and roll-out	Road map and knowledge management teams
13:30–14:30	Road map companion documents: <ul style="list-style-type: none"> • Sustainability framework • Investment case • M&E framework • WASH and NTDs global strategy • Research framework 	Dr Gautam BISWAS Dr Xiaoxian HUANG Dr Pamela MBABAZI Dr Sophie BOISSON Dr Anthony SOLOMON
14:30–15:00	Global framework for multi-disease elimination	Dr Andrew BALL
15:00–15:30	Global arbovirus strategy and the policy-making process for vector control interventions	Dr Raman VELAYUDHAN
15:30–15:45	Feedback from DTAG and STAG working groups	Dr Daniel DAGNE Dr Antonio MONTRESOR
15:45–16:00	Open floor discussion	Chair
16:00–17:00	In camera discussion if required	STAG members only

Day 3. Open session (13:00–14:30)

STAG members and Secretariat only (14:30–16:00)

Time	Topic (including discussion time)	Presenter
13:00–13:30	Revised terms of reference for STAG	Dr Mwele MALECELA
13:30–14:30	Partners' statements	
14:30–15:50	Formulation of recommendations to the Director-General	Chair
15:50–16:00	Closure	Dr REN Minghui, ADG/UCN

Annex 2. List of participants

Members

Professor L. Blumberg, Centre for Emerging and Zoonotic Diseases, Johannesburg, South Africa
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Dr A.C. Dhariwal, Ministry of Health and Family Welfare, New Delhi, India
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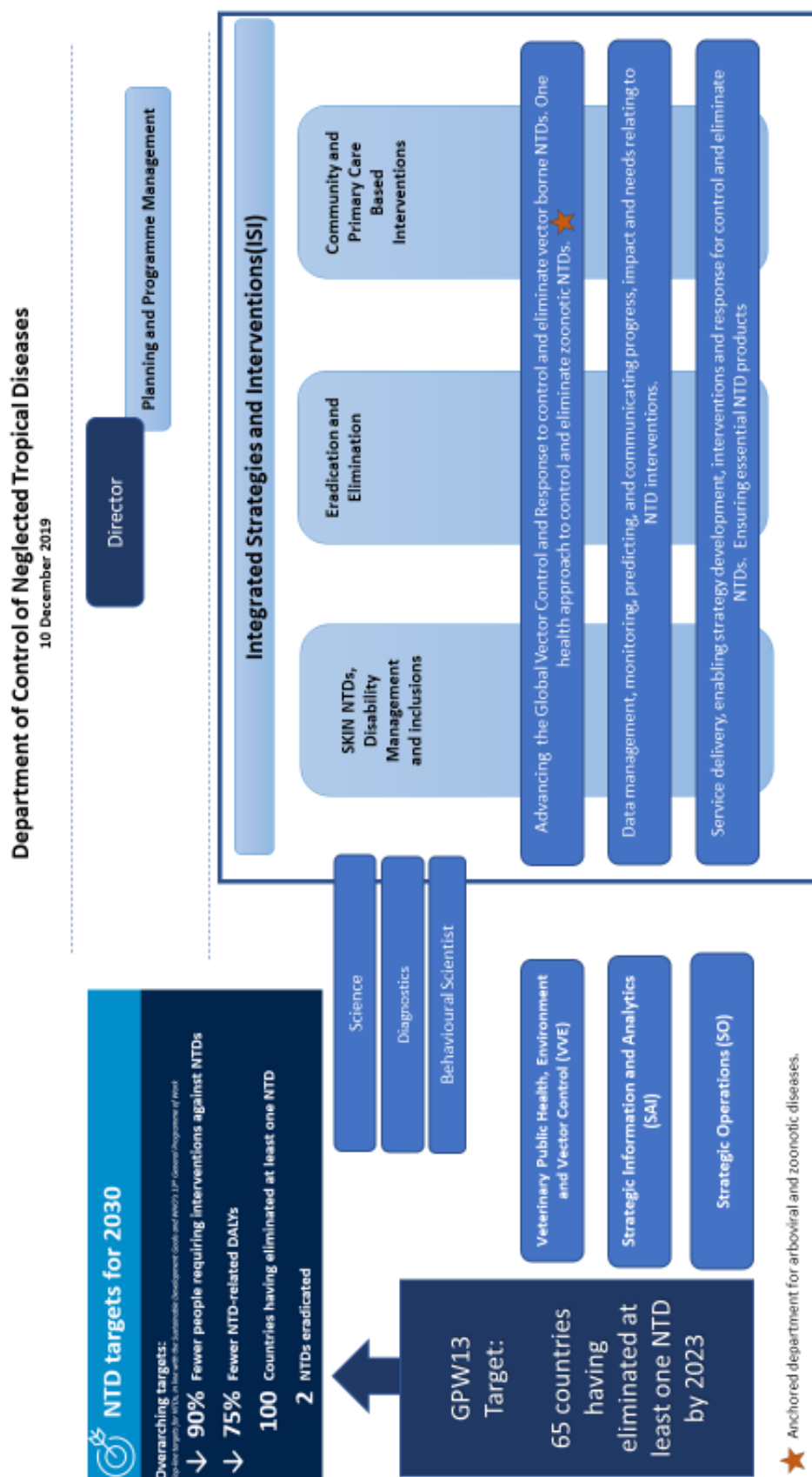
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Annex 3. NTD departmental structure and roles and responsibilities



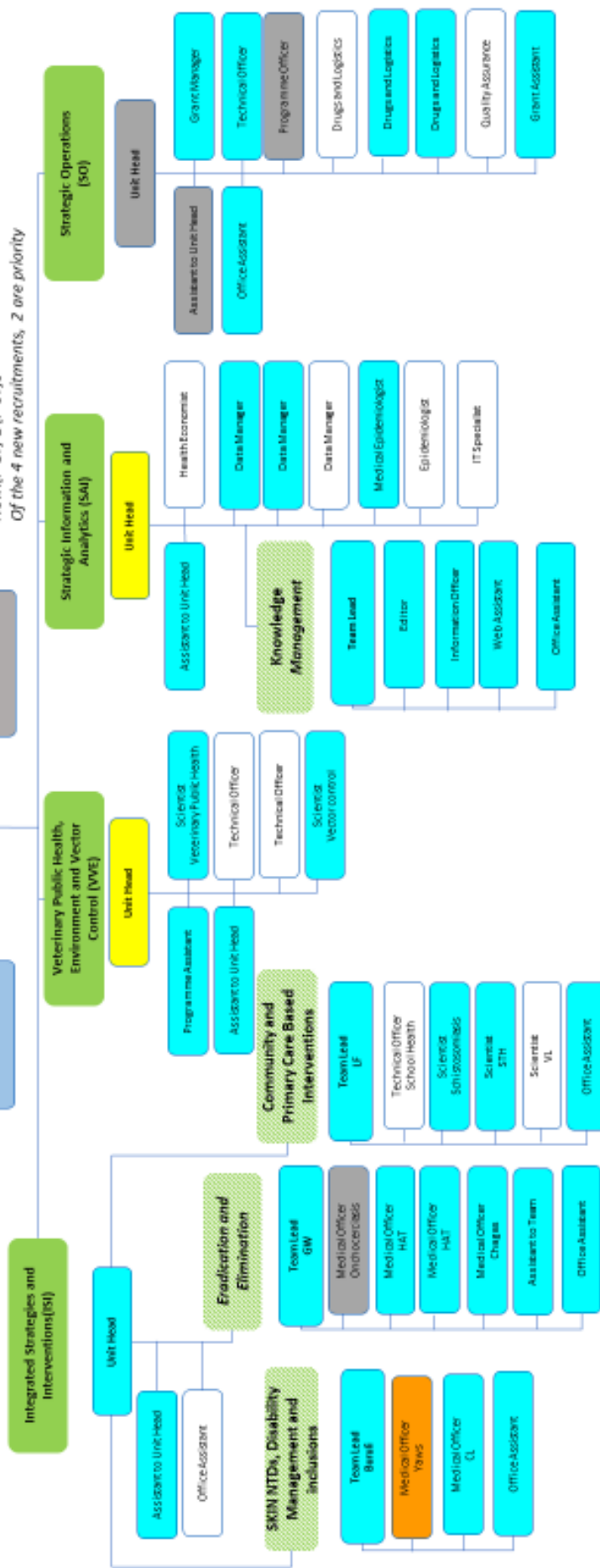


Neglected Tropical Diseases

PROPOSED MAPPING and MATCHING TO STRUCTURE
12 December 2019



Total (58) D:1 P:41 G:16
Current count:46 (P)31, (G)15
Mapped to another division:(P) 1
Vacant + New: 11 positions: (P)10, (G)1
Vacant: (P-LT) 3 (P-ST)3 (G-LT)1
New:(P-LT) 1 (P-ST)3
Of the 4 new recruitments, 2 are priority



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