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Buruli ulcer
Chagas disease
Dengue and chikungunya
Dracunculiasis
Echinococcosis
Foodborne trematodiases
Human African trypanosomiasis
Leishmaniasis
Leprosy
Lymphatic filariasis
Mycetoma, chromoblastomycosis and other deep mycoses
Onchocerciasis
Rabies
Scabies and other ectoparasitoses
Schistosomiasis
Soil-transmitted helminthiases
Snakebite envenoming
Taeniasis and cysticercosis
Trachoma
Yaws

Ending the neglect to attain the Sustainable Development Goals

A sustainability framework for action against neglected tropical diseases 2021–2030

Ending the neglect to attain the Sustainable Development Goals: a sustainability framework for action against neglected tropical diseases 2021-2030

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CONTENTS

Foreword iv

Acknowledgements v

Glossary vi

Executive summary vii

1. Purpose of the framework 2

2. Description of the framework 6

2.1 Contextual inputs 6

2.2 Cross-cutting approaches 8

2.3 Health systems 8

2.4 Non-health sectors 10

2.5 Outcomes 10

3. Use of the framework 12

4. Sustainability assessment questions and potential actions 18

4.1 Contextual inputs 18

4.2 Health systems 20

4.3 Non-health sectors 23

5. Conclusion 24

References 25

Annex 1. Consultation process 26

Annex 2. Alignment with the monitoring and evaluation framework 27

01.

Purpose of the framework

02.

Description of the framework

03.

Use of the framework

04.

Sustainability assessment questions and potential actions

05.

Conclusion

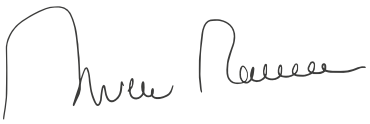
Ending the neglect to attain the Sustainable Development Goals: a sustainability framework for action against neglected tropical diseases 2021–2030 is a companion document to the road map for neglected tropical diseases 2021–2030. The road map was endorsed by the Seventy-third World Health Assembly in November 2020, calling on Member States to work towards the targets for 2030. This will be an exciting but challenging journey. Exciting, because the global neglected tropical disease (NTD) community has renewed its commitment to reaching the global NTD targets by re-focusing the work of countries, partners and stakeholders for the next decade and adding new cross-cutting targets that are more aligned with the Sustainable Development Goals. Challenging, because NTDs remain a group of diseases that mainly affect the most marginalized populations in specific geographical areas, i.e. tropical and subtropical regions. Targeted advocacy and communication will be essential to ensure that the specific health needs of these populations are included in international and national health agendas in order to leave no one behind.

The main efforts during the period of the first road map focused on rapid scale up of interventions to rapidly reduce the prevalence of NTDs through cost–effective public health interventions. The focus of the 2021–2030 decade is on protecting the progress achieved and, at the same time, expanding the scope to cover all 20 diseases and disease groups towards achieving the eradication, elimination and control of NTDs. The success of the road map will depend on the effective and sustained implementation of the interventions against NTDs.

While sustainability, defined as the *ability* of national health systems to maintain or increase effective coverage of interventions against NTDs to achieve the outcomes, targets and milestones identified in the road map, is generally recognized, there is no clear guidance on how to ensure that its determinants are considered both in the planning and execution of NTD interventions.

The World Health Organization (WHO) has therefore developed this sustainability framework for action as a companion document to the NTD road map. It begins by explaining how to look at sustainability in a comprehensive way, by considering contextual inputs, health system building blocks and cross-sectoral interactions. Then, it answers the key question on how to use this understanding to develop specific actions to foster sustainability.

To build sustainability, not only will NTD programmes need to be built upon national health systems, but also international donors and implementing partners will need to identify and utilize synergies beyond disease-specific programming and consider their potential roles in strengthening health systems. This WHO guiding document will help Member States, stakeholders and partners to align their strategies on identifying sustainable pathways towards the road map 2030 targets. The document is considered to be a living one, to be improved further as we gain experience from the application of these principles in field conditions.



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The definitions given below apply to the terms as used in this document. They may have different meanings in other contexts. Health system definitions are derived from *Everybody's business: strengthening health systems to improve health outcomes: WHO's framework for action (1)*. Definitions specific to neglected tropical diseases (NTDs) were obtained from *Ending the neglect to attain the Sustainable Development Goals: a road map for neglected tropical diseases 2021–2030 (2).*

Accountability framework: Framework for tracking stakeholder commitments for actions on sustainability, to support reporting on high-impact opportunities and assess whether sufficient progress is being made relative to their respective contributions.

Control: Reduction of disease incidence, prevalence, morbidity and/or mortality to a locally acceptable level as a result of deliberate efforts; continued interventions are required to maintain the reduction. Control may or may not be related to global targets set by WHO.

Coordination: Collaboration among adjacent sectors and programmes, within and beyond health, in the broader NTD network. Sectors such as vector control, animal health and WASH make critical contributions to progress against NTDs, and working together more effectively will accelerate and sustain progress towards elimination and control of NTDs.

Disease-specific: Concerning one neglected tropical disease.

Elimination (interruption of transmission): Reduction to zero of the incidence of infection caused by a specific pathogen in a defined geographical area, with minimal risk of reintroduction, as a result of deliberate efforts; continued action to prevent re-establishment of transmission may be required. Documentation of elimination of transmission is called **verification**.

Elimination as a public health problem: A term related to both infection and disease, defined by achievement of measurable targets set by WHO in relation to a specific disease. When reached, continued surveillance and mitigating actions are required to maintain the targets and/or to advance interruption of transmission. Documentation of elimination as a public health problem is called **validation**.

Endemic area: Area in which disease has persisted in a population or region, generally having settled to a relatively constant rate of occurrence.

Eradication: Permanent reduction to zero of the worldwide incidence of infection caused by a specific pathogen, as a result of deliberate efforts, with no risk of reintroduction.

Financing: Raising adequate funds for health in ways that ensure people can use needed services and are protected from financial catastrophe or impoverishment associated with having to pay for them.

Health workforce: A well-performing health workforce works in ways that are responsive, fair and efficient to achieve the best health outcomes possible, given available resources and circumstances; that is, there are sufficient numbers and mix of staff who are fairly distributed, competent, responsive and productive.

Information system: A system that ensures the production, analysis, dissemination and use of reliable and timely information on health determinants, health systems performance and health status.

Integration: Grouping or "packaging" of several diseases, depending on their burden in countries, to facilitate joint delivery of interventions through a common platform such as preventive chemotherapy and use of multiplex diagnostics, and integrated monitoring, evaluation and reporting for all relevant endemic NTDs.

Leadership and governance: High-level efforts to ensure that strategic policy frameworks exist and are combined with effective oversight, coalition building, the provision of appropriate regulations and incentives, attention to system design and accountability

Mainstreaming: Planning and delivery of interventions against NTDs through the national health system infrastructure to build capacity and contribute to sustainable, efficient disease prevention and control.

Mass drug administration: Distribution of medicines to the entire population of a given administrative setting (for instance, state, region, province, district, subdistrict or village), irrespective of the presence of symptoms or infection; however, exclusion criteria may apply. (In this document, the terms mass drug administration and preventive chemotherapy are used interchangeably).

Medical products, vaccines and technologies: Equitable access to essential medical products, vaccines and technologies of assured quality, safety, efficacy and cost–effectiveness, and their scientifically sound and cost–effective use.

National health system: Existing structure in a country through which health services are provided to its citizens.

Platform: Structure through which public health programmes or interventions are delivered.

Political environment: Context in which power and resources are distributed and contested in different countries and sectors, and the resulting implications for development outcomes.

Preventive chemotherapy: Large-scale use of medicines, either alone or in combination, in public health interventions. Mass drug administration is one form of preventive chemotherapy; other forms may be limited to specific population groups such as school-aged children and women of childbearing age. (In this document, the terms preventive chemotherapy and mass drug administration are used interchangeably.)

Service delivery: Effective, safe, high-quality personal and non-personal health interventions to those who need them, when and where needed, with minimum waste of resources.

Stakeholders: Individuals or groups of individuals who may be affected by, or influence, the efforts of NTD programmes.

Sustainability: The ability of national health systems to maintain or increase effective coverage of interventions against NTDs to achieve the outcomes, targets and milestones identified in the road map.

Sustainability framework: A WHO guiding document that helps Member States, stakeholders, and partners identify pathways to ambitious, measurable actions for Member States to sustainably achieve NTD targets and milestones.

Universal health coverage: Ensuring that all people receive a minimum package of needed health services of sufficient quality to be effective, without fear that use of those services would expose the user to financial hardship.

While governments and stakeholders have made significant progress towards achieving the targets and milestones for 2020 set in the previous (2012) road map for neglected tropical diseases (NTDs), sustaining and accelerating these gains and achieving the targets for control, elimination and eradication for 2030 in the new (2021) road map will require additional effort and new approaches. This sustainability framework presents one such new action-oriented approach to facilitate planning, generate political momentum and enhance resource mobilization to support the delivery of sustainable interventions against NTDs. It also provides an NTD-specific definition of sustainability: "the ability of national health systems to maintain or increase effective coverage of interventions against NTDs to achieve the outcomes, targets and milestones identified in the new road map for 2030."

The document is organized in four sections.

Section 1 explains the purpose of the framework and its linkages with the new road map.

Section 2 describes the framework. It posits that countries can achieve sustained effective coverage of interventions against NTDs and the 2030 road map outcomes by applying the cross-cutting approaches advocated therein (integrating, mainstreaming, coordinating and strengthening health systems) to NTD interventions across health and non-health sectors. It recognizes that contextual inputs (NTD epidemiology, social context and political environment) have a significant impact on how these cross-cutting approaches are applied nationally and locally.

Section 3 details a phased approach for implementing the framework. During the first phase, NTD programmes engage a working committee to drive and oversee the implementation of the framework. Second, the working committee identifies and engages stakeholders to understand their thoughts and concerns about sustainability processes. Next, the committee directs an analysis of progress towards sustainability, using the framework and the questions annexed to this document to guide interviews and focus groups. Then, the committee leads the development of priorities to strengthen sustainability and determines how to integrate those priorities into national health policies, strategies and plans. Finally, the committee oversees the implementation, monitoring and adaptation of strategies and actions to support sustainability.

Section 4 presents the key questions concerning health systems and non-health sectors, as well as the contextual factors. These questions should guide countries to identify areas for future progress towards sustainability.

By leveraging this phased approach, the sustainability framework supports the identification of pathways towards ambitious, measurable actions to strengthen sustainability. It is a call to action for Member States to identify priorities and develop strategies that address not only emerging disease epidemiology when conducting planning for NTD programming but also social, operational, managerial and political concerns that influence the successful delivery and use of NTD services.

01

Purpose of the framework

Purpose of the framework

This sustainability framework for action against NTDs ("the framework") presents an action-oriented approach to facilitate planning, generate political momentum and enhance resource mobilization to support the delivery of sustainable interventions against NTDs. It is a systematic method for identifying and harnessing synergies within NTD programmes, throughout the health system and across sectors to reach the targets for control, elimination and eradication of NTDs. The framework facilitates the sustainability of NTD programmes by (i) moving away from a disease-specific approach to an approach that uses existing health system resources; (ii) demonstrating the value of NTD interventions for health protection, health system strengthening and sector-wide development; and (iii) promoting multisectoral action to address the root causes of NTDs and provide appropriate and accessible service delivery platforms.

It complements the road map for neglected tropical diseases 2021–2030 *(2)* ("the road map") by describing a participatory, inclusive process for embedding interventions against NTDs within national health policies, strategies and plans (NHPSPs)[1] to contribute to the objectives of universal health coverage *(3)* and achieve the targets for NTDs described in the road map. It also outlines a process for achieving sustained reductions in the burden of NTDs by helping national governments identify, prioritize and sequence actions to:

- identify progress towards sustainability, describe how that progress will evolve and create priority actions to strengthen existing efforts; and
- embed priority actions in NHPSPs to guide investments towards sustained effective coverage of interventions against NTDs.

This reference document is intended for the broad range of stakeholders involved in NTD programme planning, implementation and research (**Box 1**). As with designing comprehensive multi-year plans for the control of NTDs, such as NTD master plans, national programmes should create objectives for sustainability aligned with the epidemiology of NTDs, the capacity of the health system, the available resources and the needs for NTD interventions in their country to achieve sustained effective coverage of NTD services. The framework guides programme planners to contextualize these objectives and shift towards the cross-cutting approaches that are advocated in the road map.

Throughout this document, sustainability is defined as "*the ability of national health systems to maintain or increase effective coverage of interventions against NTDs to achieve the outcomes, targets and milestones identified in the road map*". This definition reflects country commitments to progress towards universal health coverage and sustain the achievement of the NTD-related targets. These objectives are two sides of the same coin: sustaining or increasing coverage of NTD-related interventions supports overall progress towards universal health coverage, while progress towards universal health coverage influences the achievement of NTD-related targets by ensuring all people have access to high-quality health services without facing financial hardship. Reaching the NTD-related targets, however, is not enough to achieve sustainability, as governments could reach these targets with externally resourced and owned interventions. Rather, this definition highlights that the *national health system* must have the ability to achieve effective coverage of NTD interventions, without substantial external resources, as these resources can be unstable.

[1] Includes national health policies, strategic plans, medium-term expenditure frameworks and development plans, annual budgets and plans, health financing strategies, universal health coverage road maps and other programmatic reviews (for example, maternal, neonatal and child health, Expanded Programme on Immunization).

Box 1. Primary users of the sustainability framework

National policy-makers	Guide investments into national NTD programmes to enhance sustainability
NTD programme managers	Develop sustainability action plans and support implementation of sustainability actions
Local government	Understand service integration, oversight and policy implementation
Donors and implementing partners	Identify opportunities for technical assistance and funding to support sustainability
Academia and research	Clarify scientific understanding and operational research needs related to sustainability
Non-health sector partners (e.g. agricultural, education and WASH)	Identify common service platforms and synergies for investment

This framework also promotes working across sectors in an equitable, inclusive and participatory manner. In addition to identifying actionable opportunities, it provides a method for capitalizing on those opportunities, including by:

- enhancing the capacity of health ministries to present a compelling case for increasing the visibility of NTDs and their inclusion in primary health care financing;
- mainstreaming NTD intervention plans into health sector plans at national and local levels and coordinating planning among donors to increase efficiency;
- leveraging routine supply chains for donated and procured NTD medicines, diagnostics and commodities to improve efficiency; and
- capitalizing on the information-gathering and decision-making responsibilities of local and national governments to strengthen the availability and use of NTD data.

Ultimately, sustainable effective coverage of NTD services will require long-term commitment from national and local officials, buttressed by strategic investments from development partners, to collaboratively plan, implement and monitor investments in NTD interventions. Countries have the flexibility to select the components, phases and actions that fit how they will develop and implement the sustainability framework, and should take action to strengthen the sustainability of interventions against NTDs within a comprehensive multi-year plan for their control, such as an NTD master plan. **Annex 1** summarizes the process for developing this framework.

Linkages with the road map

The framework supports the road map by illustrating how progress towards the NTD targets can be sustained while contributing to universal health coverage and the Sustainable Development Goals *(2)*. The road map promotes three fundamental shifts in approaches to addressing NTDs: from process to impact, from disease-specific programmes to holistic approaches, and from externally driven agendas to country owned ones, to achieve these targets (see **Fig. 4** of the road map *(2)*). This framework incorporates these shifts through a focus on systems over diseases, outcome measurement over inputs, and including NTD interventions and targets in NHPSPs.

To operationalize these shifts and achieve the 2030 targets, the road map identifies some critical cross-cutting approaches: integration of NTD services and programmes, mainstreaming within national health systems, coordination across sectors and strengthening of health systems (see **Fig. 4** of the road map *(2)*). The sustainability framework highlights how to use these cross-cutting approaches to strengthen the sustainability of interventions against NTDs. How these approaches are implemented depends on country context, as differing disease burdens, treatment options, policy environments and social constructs drive adaptation.

In addition to this framework, the other companion documents to the road map include a global investment case, a monitoring and evaluation framework, a research and development blueprint and an updated global strategy on water, sanitation and hygiene (WASH) and NTDs. The road map identifies 70 overarching, cross-cutting and disease-specific targets. The monitoring and evaluation framework describes how these indicators will be collected, recorded and used for decision-making nationally and globally. Of the 70 indicators, 10 have implications for sustainability (see **Annex 2**). Countries are highly encouraged to adapt or develop sustainability indicators to monitor progress against country-developed objectives.

The global investment case argues for maintaining and increasing investments in NTDs to achieve the road map targets, provide resources for all 20 NTDs and support the shifts in approaches to addressing NTDs identified in the road map. As sustaining NTD interventions requires critical systems-level investments, the sustainability framework and the investment case are mutually supportive.

02

Description of the framework

02

Description of the framework

The framework (**Fig. 1**) posits that sustained effective coverage of interventions against NTDs is achieved by applying the cross-cutting approaches that are advocated in the road map (integrating, mainstreaming, coordinating and strengthening health systems) to NTD interventions across health and non-health sectors.

It explicitly builds on the principles in the road map *(2)*, the Health System Building Blocks *(1)* and universal health coverage by using these cross-cutting approaches as a lens for analysing how NTD interventions are implemented through the health system, non-health sectors, or through a coordinated multisectoral response. A strong understanding of how the contextual inputs affect those approaches is also required. The health system building blocks, the non-health sector and the contextual inputs make up the central components of the framework.

Finally, the framework describes how sustained effective coverage of NTD services can be achieved, which contributes to universal health coverage and the achievement of the road map targets. It also incorporates key One Health and gender and social inclusion concepts through explicitly highlighting working through non-health sectors and understanding the social context.

The contents of each component have questions to help countries understand the contours of sustainability for NTD interventions; these can be found in **section 4**. Some components are under the control of an NTD programme, some are sectoral issues that fall under the purview of a health ministry, while others are outside the control of the health sector. All of them, however, should be coordinated with health sector stakeholders.

2.1 Contextual inputs

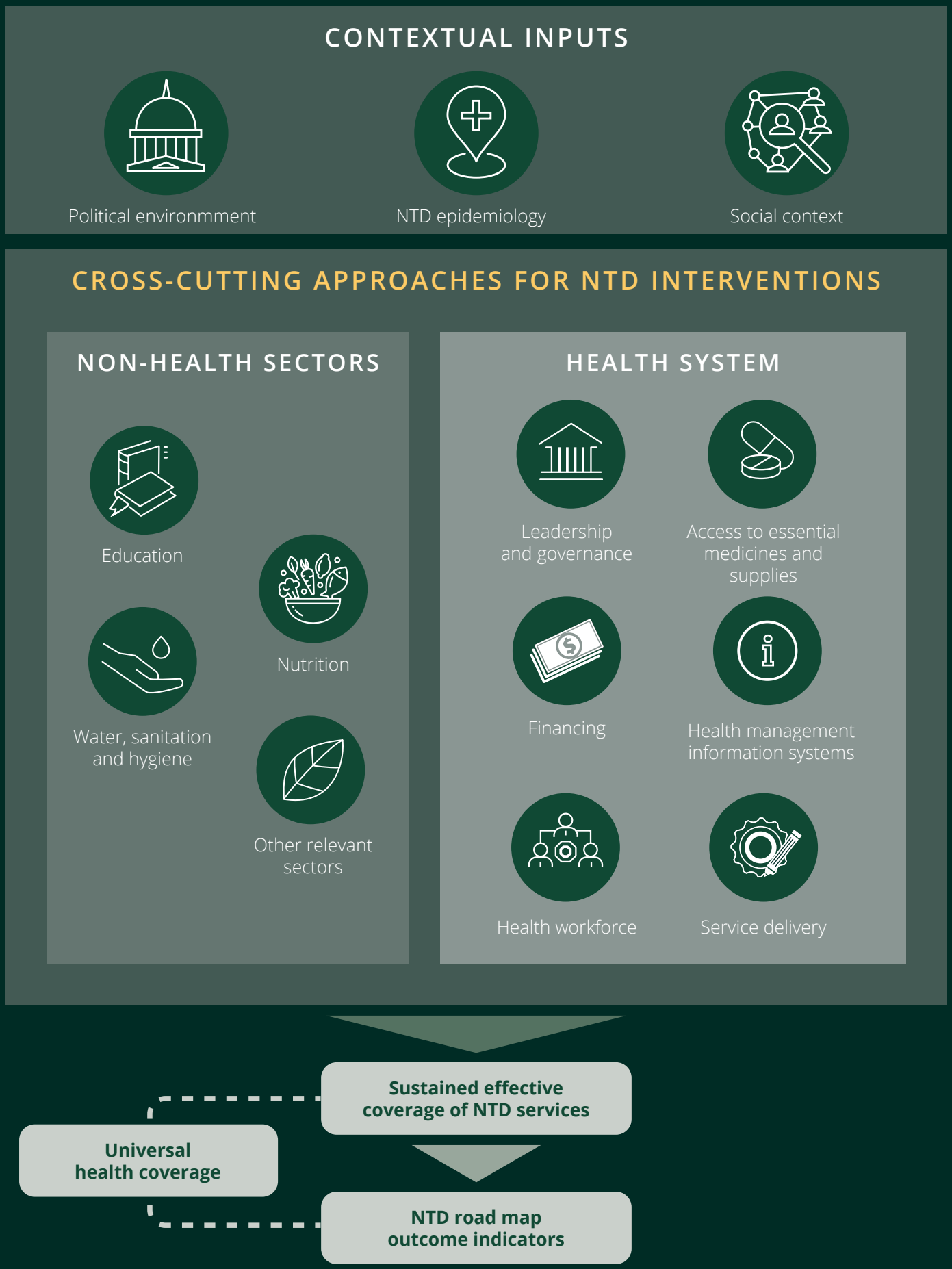
The framework starts with some key contextual elements: the epidemiology of NTDs, the social context and the political environment. These elements influence how the cross-cutting approaches are implemented, as well as the contours of how the health system functions and collaborates with non-health sectors to produce sustained effective coverage of interventions against NTDs.

2.1.1 NTD epidemiology

The epidemiology of NTDs, including how they are spread, controlled, diagnosed and treated, provides key information for developing approaches to sustainably reduce the NTD burden. Most countries have already collected a significant amount of data on the epidemiological situation to identify areas endemic for specific NTDs; these data should be reflected in planning and strategy documents, such as an NTD master plan. Understanding the epidemiological situation should be the starting point for using the framework to inform how health system resources should be used, how non-health sector collaboration occurs, and for identifying opportunities for both disease-specific and integrated interventions. For example, containment interventions for eradication of dracunculiasis may require a standalone approach, but surveillance, even when transmission is interrupted, will merit an integrated one.

Epidemiological considerations could also affect choices about where and how to mainstream certain NTD functions and which health system components need to be strengthened. Countries endemic for soil-transmitted helminthiases and schistosomiasis, for instance, should coordinate across the health and education sectors to deliver school-based deworming programmes, while controlling mosquito and fly-borne diseases requires coordinating with environmental health stakeholders to support environmental management and vector control practices. The epidemiology of NTDs can also influence budgeting, resource mobilization and service structures, as decision-makers use such evidence to decide how to allocate resources. If a country has a greater prevalence of NTDs, approaches such as mass drug administration (MDA) and campaign-based morbidity management may be called for; in lower prevalence settings, surveillance and facility-based care may be more appropriate.

Fig. 1. The sustainability framework for action against NTDs 2021–2030



2.1.2 Social context

The social context shapes, and defines, the implementation of cross-cutting approaches to achieve sustained effective coverage. As diseases of poverty, the poorest communities are most likely to acquire them, fall ill and suffer permanent morbidity. The degree of urbanization, for example, could define which sectors are involved in coordinating interventions against NTDs. A less urbanized country will require more coordination with rural development stakeholders, whereas a more urbanized one may need greater coordination with housing and urban planners.

Social context also drives how people acquire and spread NTDs, as well as their ability to access services to treat NTDs; consideration of social context should be inclusive of gender and equity factors. Women and men face differential NTD risks, barriers and outcomes and, as such, the response to NTDs must be able to identify, understand and seek to address gender-related challenges. For example, girls may be missed during school-based deworming efforts if they are more likely to be out of school: in communities that undervalue girls' education, girls may leave school due to menstruation, pregnancy, early marriage or a need to contribute to household income. Inequities, driven by the social context, are pervasive and ultimately linked to conditions of gender, ethnicity, disability, sexuality and religion. Together or individually, these conditions compound the risk of acquiring an NTD and influence access to information, services, treatment and outcomes.

2.1.3 Political environment

Decisions about health programme priorities are inherently political. It is critical therefore to understand how power and resources influence the sustainability of health interventions. The structure of government, the level of decentralization, the power of the institutions that make decisions about interventions against NTDs and the veto points that exist in the system, can, for example, influence NTD planning and financing mechanisms. These considerations could also affect the level of financing and political support for certain interventions, as outlined in the investment case companion document to the road map, or even the structure of information flows and supply chains. Integrating and mainstreaming NTD functions into the health system, as well as coordinating interventions across sectors, requires changing how NTD programmes are managed and organized. The political will to carry out such reforms is determined by the incentives and motivations of senior decision-makers in the health ministry.

2.2 Cross-cutting approaches

The cross-cutting approaches detailed in the road map are aligned with the goals of universal health coverage and patient-centred models of care. While it is within the power of national health system stakeholders, such as senior management in the health ministry, to undertake these approaches, it is also essential to engage stakeholders from other sectors to gain critical buy-in for interventions that require multisectoral action (e.g. school based deworming).

There are no specific questions in **section 4** about the cross-cutting approaches; rather, the questions for each contextual input, health system block and non-health sector component incorporate these concepts. In line with the road map, implementing these approaches supports sustained effective coverage of NTD interventions by promoting increased accessibility and availability of interventions against NTDs, leveraging existing health system infrastructure, and building on existing non-health resources to deliver NTD interventions more cost–effectively and sustainably.

2.3 Health systems

The health system is defined as the component parts of the health system building blocks.[1] The framework applies the building blocks to unpack NTD programmes and services into their component parts. NTD sustainability issues at the national and local levels are analysed by, for example, identifying decision-making processes, resourcing options and flows, and mechanisms for collection and use of information. Each of these considerations illuminate critical aspects of sustainability that the health sector directly controls to impact the effective coverage of NTD interventions. Analytical questions for understanding the sustainability implications of each health system building block are found in **section 4**. Additionally, **Box 2** highlights two useful documents on systems-based approaches to sustainability. These can help in understanding the conceptual underpinnings to conducting an applied health systems analysis, and can be useful references to consult during the NTD sustainability assessment (see section 3, phase 3).

[1] Definitions for the health systems building blocks in section 4 are derived from WHO's framework for action *(1)*.

Box 2. Systems-based approaches to sustainability

Cross-programmatic efficiency analysis	This WHO guidance document provides an approach to analysing efficiency across health programmes by identifying where duplication, overlap or misalignment may exist across health programmes and the overall health system *(4)*.
UHC2030 sustainability and transition principles	The UHC2030 statement on sustainability and transition provides a set of common principles to guide the actions of national governments, development agencies, and other health stakeholders in response to transition from external funding. These principles reflect the consensus made among countries and development partners *(5)*.

Leadership and governance defines the relationships between the organization of NTD services, the broader health sector and other relevant ministries (e.g. education, water and agriculture), as well as the factors that influence if interventions against NTDs are championed and prioritized by decision-makers. As the risk of acquiring an NTD is closely linked to health behaviour, infrastructure and vector control, NTD interventions rely on the governance capacity of health ministries to collaborate with other sectors to implement NTD interventions sustainably. Additionally, NTD programmes are frequently implemented by local governments, requiring significant operational and financial coordination between governmental levels. Understanding the policies and attributes that define these relationships is important to how NTD services are governed, and ultimately implemented, effectively. Finally, governance also entails how citizens engage with, and provide feedback to, government officials about the NTD services they receive.

Financing considers the resources necessary to maintain and expand effective coverage of NTD interventions, how that funding is pooled and budgeted, and the mechanisms through which it is allocated and used across levels of government and at facility-level. Common constraints include resource limitations (even with external funding), the transition of external funding and medicine donations (especially post-elimination), fragmentation and a lack of coordination, and inefficiencies in resource allocation and budget execution. Dependence on external funding sources increases the uncertainty of funding for NTD interventions, and countries that receive external funding need ongoing discussions with donors to understand their financing plans and commitments.

To sustain NTD interventions, health ministries and other ministries funding NTD interventions should work together to identify and address inefficiencies in budget formulation, execution and monitoring. Cross-sectoral coordination at national and local levels also enables countries to pursue the most efficient use of NTD funding to achieve the NTD targets and milestones sustainably as part of universal health coverage.

Human resources, such as administrative staff at the health ministry, community drug distributors, facility-based health providers and employees in non-health sectors, are essential to achieving sustainability. National and local governments must consider how staffing availability and skills impact the ability to reach the global NTD targets and milestones and ensure that NTD services are within the roles and responsibilities of relevant staff. To understand how to strengthen sustainability, licensing, training processes, supportive supervision, employment records and gender-specific differences in pay, recruitment and promotion must all be considered.

Information should be collected from a variety of sources, including surveys, routine monitoring and facilities, to make decisions about interventions against NTDs and integrated into shared health system platforms. Many NTD interventions take place at the community level and/or in schools, which are not always captured in country-level data collection platforms. Intermittent surveys often inform NTD programming, but rarely investment or resource allocation decisions outside the NTD programme. Effective surveillance is required to support sustainability when diseases are targeted for control, elimination or eradication.

NTD medical products for selected preventive chemotherapy and innovative and intensified disease management are often donated by pharmaceutical companies whose procurement and distribution systems may be parallel to the national supply chain. Sustainability will depend on the continuity of these donations in the short term, and a transition to country-procured and financed products in the medium to long term. Leveraging the strengths of both systems, including forecasting and distribution functions, to improve the supply chain for NTD medicines and products is critical to sustainability. In countries where the NTD supply chain is integrated into the national supply chain, understanding the supply chain structures that facilitate or hamper sustainability, including how national systems incorporate new medicines, will be necessary.

Service delivery mechanisms for interventions against NTDs define where services are provided and the extent to which they are integrated to ensure that all relevant services are available at the appropriate level of service, including if NTD control and treatment interventions are included in the minimum package of essential services. Sustainability implications will vary widely if, for example, prevention and/or treatment is provided at the community level or the facility level, and if morbidity management services are routinely provided at hospitals, in primary health care facilities or via mobile campaigns. Additionally, many NTD interventions, for example MDA, rely on community health volunteers, which has significant implications for sustainability concerning pay, training and supervision. Service considerations should also include the degree of service integration, equity across income, geographical, age and gender barriers, and the degree of private sector involvement.

2.4 Non-health sectors

Many interventions against NTDs are implemented through the health sector; however, other sectors also implement them and are critical to tackling NTDs. Existing school-based deworming programmes, for example, leverage education sector resources, such as teachers and infrastructure, while comprehensive control of rabies relies heavily on close coordination among multiple sectors such as those that play a role in the One Health approach (**Box 3**). The private sector also contributes resources and platforms for surgical campaigns, for example.

Box 3. The One Health approach

The One Health approach brings together stakeholders in various sectors to implement programmes and policies in support of public health outcomes. For NTDs, a One Health approach supports a "coordinated approach to disease hosts and environmental factors related to NTDs, with clear assignment of roles and responsibilities" (see **Fig. 19** of the road map *(2)*).

The One Health approach is critical to sustaining interventions against NTDs as it can leverage existing infrastructure to support vector control, surveillance, animal husbandry interventions and data-sharing among sectors. By engaging with One Health committees and working groups, national NTD programmes can improve their data collection and analysis and strengthen the reach of NTD interventions to support sustained effective coverage of NTD services.

Integrating, mainstreaming, coordination and strengthening systems are also relevant approaches for non-health sectors. For example, integrating behavioural change messages into schools can enhance existing programmes for preventing soil-transmitted helminth infections among school-aged children. Mainstreaming NTD interventions into non-health sectors could be as simple as including activities that address NTDs into the annual plans for relevant sectors.

Interventions that are resourced and implemented through non-health sectors support the sustained effective coverage of NTD services by providing reach into communities that the health sector alone does not have. Schools, agricultural outreach and hygiene promotion programmes all extend the reach of NTD services beyond health facilities, thereby expanding opportunities for effective coverage.

2.5 Outcomes

Sustained effective coverage of interventions against NTDs contributes to two outcomes. First, it contributes to targets 3.3[1] and 3.8[2] of Sustainable Development Goal 3.[3] Second, it supports the outcomes of the road map, which orient global and national efforts to control, eliminate or eradicate NTDs over the next decade. These outcomes highlight critical disease-specific achievements (e.g. eradication), cross-disease goals (e.g. reduced NTD risk and disability-adjusted life years) and, finally, mainstreaming and coordination targets (e.g. financial risk protection and access to water).

[1] Target 3.3: By 2030, end the epidemics of AIDS, tuberculosis, malaria and neglected tropical diseases and combat hepatitis, water-borne diseases and other communicable diseases.
[2] Target 3.8: Achieve universal health coverage, including financial risk protection, access to quality essential health-care services and access to safe, effective, quality and affordable essential medicines and vaccines for all.
[3] Ensure health lives and ensure well-being for all at all ages.

03

Use of the framework

04

Use of the framework

The framework has six phases, as outlined in **Fig. 2**, that describe how a national NTD programme can use the framework to understand its current level of sustainability and develop sustainability actions to embed in other NHPSPs. Key assessment principles are found in these phases. They include developing clear objectives, obtaining stakeholder buy-in and ownership of findings, identifying key leverage points for sustainability actions and developing accountability mechanisms to facilitate strategy implementation.

Recognizing that countries start at different points, the framework uses a decision tree (**Fig. 3**) to help countries decide where to begin. The decision tree directs countries to different phases in the process depending on whether they have identified potential areas to support progress in sustainability, developed priority actions or incorporated those actions into existing plans. Countries need not to have implemented all of the phases of this process, such as developing a Sustainability Working Committee, to continue to subsequent phases; rather, they should focus on whether or not sustainability priorities and indicators have been identified and/or included into existing plans, per **Fig. 3**.

1 Form a Sustainability Working Committee

Assuming the sustainability of interventions against NTDs has not been previously assessed, such as through a comprehensive NTD programme review, a strategic planning process or while developing an NTD master plan, the health ministry should first identify members of a Sustainability Working Committee who will implement the sustainability framework. If a similar working committee already exists (e.g. for planning purposes), then it is recommended to build on the roles and responsibilities of that committee, rather than creating a new one.

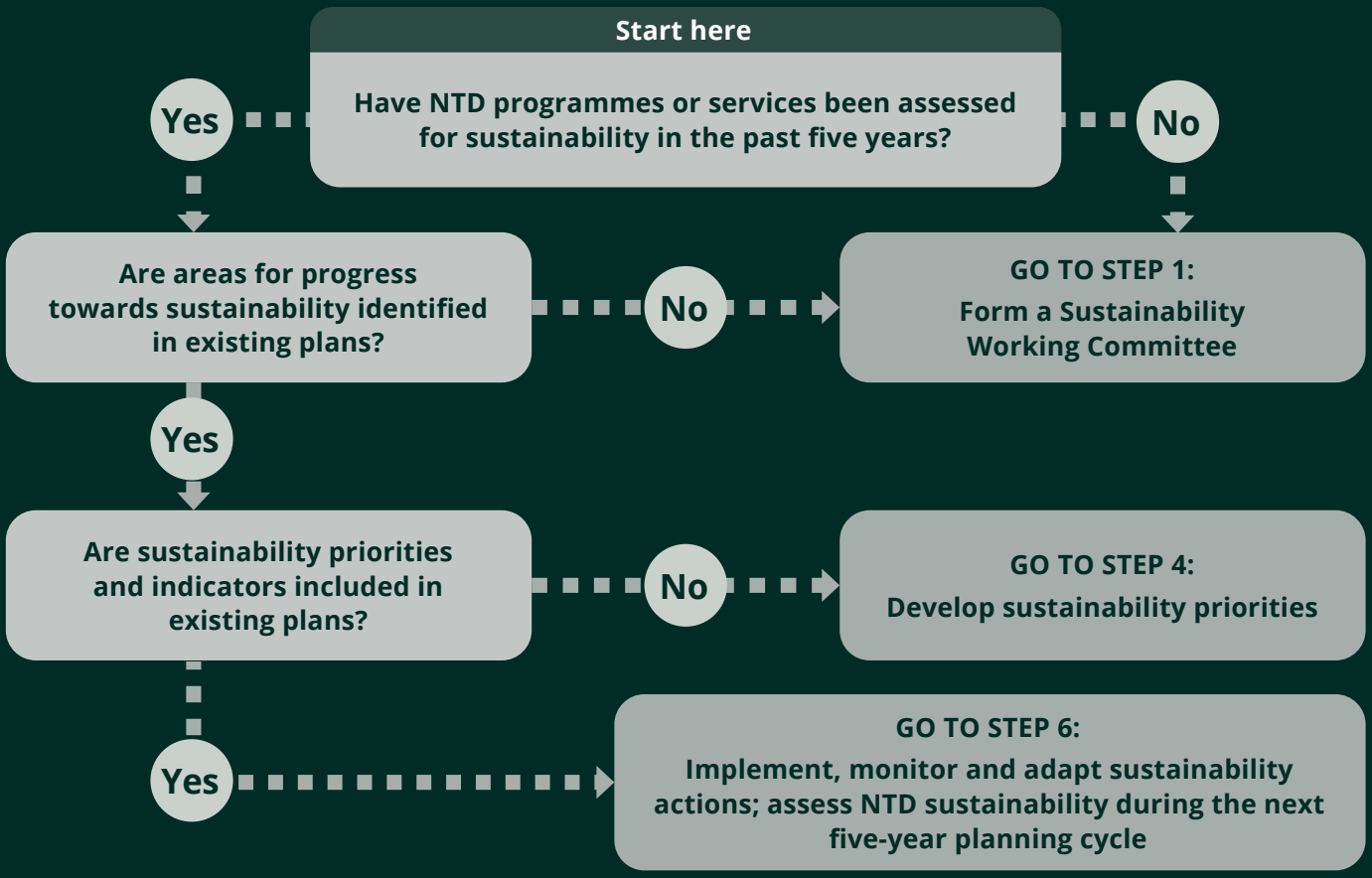
Members of the Committee should be familiar with NTD interventions and/or health system structures; many members will come from within the health ministry, while others should represent different ministries, academia, civil society, communities or development partners. The Committee should be committed to diversity and broad representation of affected groups in the country; further, its fundamental principles should include meaningful participation of affected groups and women's leadership. Once identified, the health ministry has the flexibility to convene members and define roles, responsibilities and communication methods.

To define the scope of the assessment, the Committee should create a country-level vision for the sustainability of NTD interventions and clear objectives for the sustainability assessment. The vision and objectives will inform how the framework is applied, which of its components are most relevant and clarify which stakeholders should be involved at each stage. By defining a vision, the country can focus on the key questions that are appropriate to the country context. For example, a country that depends heavily on external resources may use sustainability questions focused on the risk of reduced external resources, with sustainability framed in terms of domestic resource mobilization. Conversely, a country nearing an elimination goal may frame sustainability as maintaining political support for surveillance and preventing recrudescence. The Committee should also consider how it will manage external communications and inform relevant stakeholders outside the Committee about its actions.

Based on the vision and objectives, the framework should be implemented flexibly. For example, the Committee can make specific decisions on the scope of the assessment. While it is preferred to integrate the framework fully into existing processes, give stakeholders maximum decision-making responsibility over the implementation process and collect significant amounts of new data, that level of involvement and analysis can be expensive, time-consuming and add significant work for ministry staff. This more in-depth analysis is especially useful if assets, progress and potential actions are unknown or not well-documented. Extensive involvement and analysis could require dedicating multiple staff, over

Fig. 2. Phases of the sustainability framework for action against NTDs 2021–2030

Fig. 3. Sustainability framework decision tree



the course of 4–6 months, and other resources such as travel and workshop costs.

Countries also have the option to conduct a less resource-intensive process that requires stakeholder review, rather than decision-making, and to use existing, rather than new, information. While a more truncated process provides fewer opportunities for input from stakeholders or data collection, it is also quicker, as fewer interviews, focus groups and stakeholder meetings need to be held. As a less-intensive process requires less travel and staff time, this level of analysis may involve only one or two staff over 3–4 months.

Outputs: *Sustainability Working Committee organized; terms of reference defined, including the scope of the assessment and the methodologies to be applied*

Tools: *Draft terms of reference*

2 Conduct stakeholder landscaping

The health ministry and the national NTD programme should conduct a stakeholder landscaping or analysis[1] using available and appropriate tools and methodologies. Any stakeholder analysis should help national NTD programmes identify and understand key stakeholders (e.g. within the health ministry, affected groups, other line ministries, academia, implementation partners, local governments, civil society, donors) with an interest in, and influence over, the sustainability of achieving the NTD targets and milestones. A stakeholder analysis will also help clarify the roles of these in planning, financing and coordinating interventions against NTDs and identify which organizations should be consulted during phase 3 (assessment) and phase 4 (prioritization).

Output: *Stakeholder analysis*

Tools: *Stakeholder analysis tool*

3 Assess sustainability

Building on the elements described in the framework (**Fig. 1**), WHO identified critical questions to describe the context for interventions against NTDs and the health systems and non-health sectors in which they are embedded. These questions can be found in **section 4**, but they are not a comprehensive analysis of sustainability; rather, they are an illustrative subset of what key informants, Member States and survey participants identified as the most critical. Countries should add to, subtract from or modify these questions, as appropriate to their context.

In answering these questions, stakeholders will gain insight into what actions they should take to strengthen sustainability. To use the questions in **section 4**, three intermediate steps are recommended.

- **Conduct a desk review and design interview guides.** Desk reviews should be based on the existing literature[2] and other programmatic and financial information. The review should also highlight directions in policy and gaps in knowledge. Interview guides should build on the illustrative questions and incorporate the knowledge gaps identified in the desk review.
- **Consult stakeholders.** The NTD programme should seek the advice of stakeholders identified during the stakeholder landscaping (phase 2) to fully understand their points of view on how the framework should be implemented and possible concerns. The consultation can take place in a meeting or workshop, during one-on-one meetings, or a combination of the two.
- **Collect and analyse data for common themes.** In-depth interviews and focus groups are important mechanisms for gathering the qualitative data necessary to assess sustainability accurately. Often, interviewees have unpublished documentation, such as scopes of work or policy guidelines, that can inform sustainability analyses. These documents should be collected and reviewed for relevance. Interviewees and focus group discussions should be used to answer the specific questions identified in **section 4** and should be tailored to the specific interviewee or group. To inform the planning processes, interviews and focus groups discussion should be coded by specific themes. The Sustainability Working Committee can select new themes or use themes from the framework. These themes will identify specific areas of future progress towards sustainability, which will be the focus of priority development in the next phase. Themes can be classified according to whether they are internal to the NTD community, within the health system or are cross-sectoral in nature.

Output: *Written review of areas for future sustainability progress and themes*

Tools: *Desk review templates, interview guides, sustainability assessment tools*

[1] Many stakeholder analysis tools are available. The stakeholder analysis matrix template from tools4dev is one example *(6)*.
[2] For example, policies, strategies, plans, guidelines and progress reports.

4

Develop sustainability priorities

The health ministry and the national NTD programme should convene the stakeholders identified in phase 2 in a workshop to generate consensus on areas for future progress towards sustainability and develop actionable priorities. Stakeholders should first review the common themes identified during the assessment phase to familiarize themselves with the findings and ensure their relevance. Next, they should prioritize those themes that support progress towards sustainability based on (i) the importance of each theme to strengthening sustainability and (ii) the feasibility of making progress within that theme.

The importance of the theme can be measured by understanding how addressing it will directly lead to increased effective coverage of interventions against NTDs via one or more of the cross-cutting approaches. That is, will strengthening the area improve integration across NTD programmes? Will it further improve mainstreaming NTD programmes into health systems? Will it reinforce coordination across sectors? Or will it strengthen health systems? Feasibility can be measured by understanding the resources (time, money, people) required to build on existing progress, the capacity of institutions and staff to follow up on that progress, and the willingness of senior decision-makers to allocate resources to achieve the desired result.

Countries might initially think about prioritization based on how well-established their programme is or on the epidemiology of NTDs in their country. For example, countries that have focused heavily on disease-specific programmes may need to focus on national governance and financing processes. Other NTD programmes may need to target specific components of the health system, such as workforce education programmes or nutrition communication strategies, which may be embedded in other institutions. Countries with a greater burden of NTDs may prioritize certain actions, such as vector control or coordinating platforms for MDA, over others, such as surveillance and integrated financial management.

Next, stakeholders should identify why progress remains to be made, using root cause analysis *(7)*. Root cause analysis identifies why a problem exists, why it happened and what can be done to mitigate it. To use root cause analysis to implement this framework, begin by identifying possible reasons why progress towards sustainability is not as steady. Stakeholders should think about the sequence of events that led to the evolution of the problem. One method of identifying root causes is to use the "five whys" technique (**Box 4**) to develop a cause and effect ("fishbone") diagram *(8)*. The root cause is established when stakeholders identify a structural or systemic cause of limited progress towards sustainability. When conducting the analysis, stakeholders should consider the influence of the contextual inputs, including politics, epidemiology, gender and other social contextual issues, on the sustainability of NTD interventions.

Once root causes are established, it is time to identify and recommend actions that address the root causes. First, stakeholders should identify who would be responsible for taking on specific challenges. Are potential actions under the control of the health ministry? The NTD programme? Or another sector? Next, stakeholders should identify potential solutions to the root cause. For each solution, stakeholders should identify the contextual issues, the service implications, the resources required to complete it and the stakeholders to engage. Finally, stakeholders should identify indicators and milestones for each solution.

Actions should also be prioritized based on (i) common themes that emerge from the sustainability assessment, based on the questions in **section 4**; (ii) the capacity of country-level stakeholders to complete the action without significant external technical and/or financial assistance; (iii) the commitment of governments, donors and implementers to implementing the action; and (iv) the timeframe in which the action could be implemented.

Actions should be matched with potential resources; stakeholders should also determine the long-term impact and potential for success. Potential actions can be broadly categorized as: (i) improving the efficiency of existing interventions, mostly, but not exclusively, by

Box 4. The five whys of a root cause analysis

An example of a problem is: *NTD interventions are under-resourced in annual plans*.

Why? NTD data are not available for decision-making. (Second why)

Why? NTD data are not integrated into the health management information system. (Third why)

Why? NTD data are reported directly to the NTD programme.

Why? NTD data are collected using programme-specific indicators and tools. (Fourth why)

Why? The NTD programme operates outside normal ministry structures. (Fifth why, a root cause)

mainstreaming into the health system; (ii) improving advocacy for domestic resources for NTDs, primarily through skills building and improved data collection and analysis; and (iii) strengthening multisectoral collaboration to leverage non-health resources.

In addition to developing the priority actions, the Sustainability Working Committee should develop an accountability framework,[1] including roles and responsibilities for specific actions, data collection, monitoring and enforcement mechanisms, and clear indicators for tracking progress. The NTD programme should work with senior management in the health ministry, and other ministries, to ensure approval and dissemination, in line with government protocols.

Output: *Strategy to strengthen progress toward sustainability in NTD programmes and services*

Tools: *Sustainability assessment, root cause analysis, accountability framework*

5 Embed sustainability priorities into NHPSPs

The Sustainability Working Committee should next consider how to embed findings and themes into broader systems and highlight linkages to NHPSPs, including medium-term expenditure frameworks, medium-term development plans, annual budgets and plans, health financing strategies, universal health coverage road maps and other programmatic reviews (reproductive, maternal, neonatal, child and adolescent health; the Expanded Programme on Immunization, etc.). Alignment with poverty reductions strategies or other development strategies also supports the use of assessment findings.

There are many methods of aligning sustainability plans with NHPSPs, including holding a review meeting to identify areas of similarity, using the framework as an input into designing NHPSPs, and ensuring that priority actions follow from priorities in NHPSPs. Using any one of these methods requires a strong understanding of the critical stakeholders to engage (per the stakeholder identification process in phase 2), the entry points for including sustainability priorities into NHPSPs (e.g. which stage of the process to engage) and, finally, the potential veto points in the process (i.e. which institutions can block sustainability priorities).

Output: *Activities to strengthen progress towards sustainability embedded into NHPSPs*

6 Implement, monitor and adapt sustainability actions

Once approved and disseminated, priority actions should be implemented and tracked by the responsible parties. To support accountability, the NTD programme, along with the Sustainability Working Committee, should ensure that regular monitoring, using the indicators and concepts identified in the monitoring and evaluation framework, is integrated into ongoing working groups to facilitate progress tracking and course corrections. These should include the addition of specific sustainability indicators in medium-term planning, budgeting and sector performance processes. Ongoing monitoring, learning and adaptation of progress to new realities are essential to the success of the plan, as pathways to sustainability are unlikely to be linear or similar across countries. Potential tools for monitoring progress include logical frameworks *(9)*, logic models *(10)* and results frameworks *(11)*. Monitoring mechanisms could include surveys and health management information systems, while indicators for tracking implementation of sustainability actions are described in the monitoring and evaluation framework.

To provide opportunities for adaptation, NTD programmes should facilitate regular pause and reflect sessions with health and non-health stakeholders to understand what is working, what should be changed and the impact of those changes on interventions against NTDs. Options for pause and reflect sessions include conducting after-action reviews, facilitating appreciative inquiry exercises and developing communities of practice *(12)*. Selected sustainability questions from **section 4** should be re-reviewed during pause and reflect sessions to identify emerging challenges and opportunities.

Outputs: *Prioritized sustainability actions taken, monitoring plan and accountability framework developed and implemented*

Tools: *Monitoring plan, pause and reflect session template*

[1] Accountability has two components: responsibility and enforcement. Stakeholders should identify both the organization that has responsibility for a specific action and the organization that will enforce the action. In addition, it is helpful to identify a mechanism for enforcement, e.g. working group meetings, results-based financing, commitment tracking, civil society voice or government audit functions.

04

Sustainability assessment questions and potential actions

Sustainability assessment questions and potential actions

The questions and actions in this section are meant to guide implementation of the framework. Neither the questions nor the actions are comprehensive; rather, they are examples of the types of questions the Sustainability Working Committee should ask and the actions that could be taken. It is important that these questions are reviewed and adapted to the contexts of the country. Each question focuses on assessing sustainability across NTD interventions, rather than disease-specific issues. Each set of questions also highlights how that information can be used to inform sustainability actions.

4.1 Contextual inputs

4.1.1 NTD epidemiology

By answering these questions, national governments will *understand the endemicity and characteristics of the NTD burden in the country context. The answers to these questions can guide investment opportunities, planning processes and areas of potential coordination, for example with vector control or WASH initiatives*. Most epidemiological information should be available in existing documentation.

- Which NTDs are endemic in the country?
- What is the prevalence, intensity and geographical distribution of endemic NTDs?
- What are the disease-specific targets (control, elimination as a public health problem, elimination [interruption of transmission] or eradication)? How close are the endemic areas to achieving the targets?
- How is the disease diagnosed? Are test kits available, affordable and field friendly? Are clinical symptoms used to diagnosis the NTD; is any grading used?

Potential actions

- Prioritize endemic areas[1] or specific diseases for case-finding, public messaging or preventive chemotherapy, based on prevalence or geographical distribution, in NHPSPs.
- Coordinate with vector control initiatives and One Health committees to use common platforms efficiently.
- Understand where expansion of human resources or services is needed or feasible.
- Determine the feasibility of diagnostic expansion.

4.1.2 Social context

By answering these questions, national governments will *understand the social and demographic characteristics that contribute to increased vulnerability to NTDs in an endemic area. Understanding these characteristics will support the design of polices, plans and strategies, for example platform selection and community versus facility-based intervention strategies, which consider diverse social and population-level vulnerabilities. Most of this data should be available within demographic and health surveys or other household surveys.*

- What is the poverty rate of the endemic area? How equally is income distributed?
- What percentage of the population is aged under 18?
- What is the rural and urban breakdown of endemic areas? At what rate are endemic areas urbanizing? Does the endemic area have refugee camps or nomadic populations?

[1] An endemic area could be a community, district or country that is endemic for one or more NTDs.

- Which vulnerable groups, such as out-of-school youth, pregnant women, people with disabilities, fisherman, farmers, live in the endemic area? How many?
- What percentage of the population aged 6–24 years is attending school?
- What is the level of educational attainment and literacy by age group and sex?
- What is the prevalence of disability by domain, age and marital status?
- What is the prevalence of anaemia in pregnancy? What percentage of pregnant women have access to micronutrient supplementation and deworming?
- What percentage of people:
  - live within 5 km of a health facility?
  - have access to piped water?
  - have improved sanitation facilities and hygiene?

Potential actions

- Coordinate services with anti-poverty, WASH, vector control, gender and women's affairs, nutrition, agriculture and education programmes.
- Map nomadic populations to understand NTD risk and when and where to target interventions.
- Prioritize behavioural change messages to vulnerable populations.

4.1.3 Political environment

By answering these questions, national governments can *identify the incentives and motivations of policy-makers to support the sustainability of NTD interventions. This knowledge supports the identification of politically informed actions to influence these stakeholders to further support sustainability efforts*.

- Who holds power to decide how NTD interventions are organized? Who influences these decisions? What authority do stakeholders have to oversee those interventions?
- What are the stakeholders' positions on how NTD interventions are organized? Do they support or oppose integration and mainstreaming efforts? With what level of intensity? What motivates stakeholders to support or oppose these actions?
- At what key points are decisions about NTDs, or those that affect NTDs, usually made? What are the policy processes and who are the actors that influence these decisions?
- What formal and informal mechanisms influence policies and budgets in the country (e.g. civil society advocacy, policy-maker personal experience, parliamentary hearings)?

Potential actions

- Advocate strategies to change position or power of stakeholders, including negotiate over change in a technical aspect of NTDs, or to provide desired resources.
- Target advocacy messages to appeal to specific influential stakeholders.
- Identify influential people who can affect decisions on allocation of resources for NTDs.
- Clarify effective mechanisms for NTD policy reform.
- Anticipate potential responses from policy-makers and develop follow-up actions for different scenarios.

4.2 Health systems

4.2.1 Leadership and governance

By answering these questions, national governments will *clarify the mechanisms for integration, mainstreaming and coordination of NTD management and planning functions into, and beyond, the health system and understand the mechanisms by which citizens can hold government accountable for high-quality NTD services*.

- What is the role of the health ministry in coordinating various stakeholders to deliver interventions against NTDs? What other key sectors or institutions are involved in their delivery?
- Is there a centralized operational plan into which the NTD programme fits? Is there a donor coordination body that works closely with the health ministry?
- What NTD services are included in the minimum package of essential services?
- Are guidelines for the management of NTD-related disabilities integrated within the national health system? Are they used at the facility and community level?
- How do local and national governments share responsibility for planning NTD interventions? What does the budgeting process look like between levels of government for NTD interventions?
- What formal or informal mechanisms do citizens have to express their opinions about NTD services to policy-makers and health providers? What structures incentivize policy-makers to respond to citizens' opinions (elections, patronage networks, protests, advocacy networks)? Which citizens have access to these mechanisms?
- What role do local governments play in providing NTD services? What mechanisms exist for them to coordinate their work with the national government?
- What accountability mechanisms are in place to enable results in NTD interventions (audit, annual reports, etc.)? How are these accountability mechanisms used? Are there differences with the rest of the health system?

Potential actions

- Identify cross-sector structures to coordinate NTD services.
- Engage with existing mechanisms to mainstream NTDs into health sector planning.
- Include NTD treatment and care into packages of essential services and insurance benefit packages.
- Engage communities to advocate for improved NTD services.

4.2.2 Financing

By answering these questions, national governments will *identify if governments and NTD programmes can ensure adequate and efficient financing of NTD services without undermining other health priorities, while also ensuring that funding will achieve the NTD targets and universal health coverage*.

- Does the NTD programme regularly develop investment cases that advocate for increased domestic financing for NTDs?
- What percentage of the country's health budget is fully executed? At national and local levels? How are financial resources and programmatic data tracked and managed? What data are used to allocate NTD funding?
- Is the NTD master plan costed and budgeted? If so, what is the discrepancy between the costed plan and the available budget?
- Revenue raising
  - What are the current sources of funds for NTD programmes and what is the current level of funding?[1] For example, are the programmes funded by external or domestic funders, or both? What are the current gaps in NTD funding?
  - Does the NTD programme, or disease-specific programmes, have their own funding streams?
- Pooling
  - Are funds for NTD interventions pooled separately, or are they merged with other programmes and/or services?
  - Are funds for inputs needed to provide NTD services pooled separately across programmes, or are certain line items (e.g. staff salaries) merged while others (e.g. medicines) are held separately?

[1] Funding should be broken down by NTDs, by programme stage (e.g. MDA, post-validation surveillance, morbidity management), and by government level (central, district, local).

- Purchasing
  - Are there any differential payment methods or mechanisms for providers to deliver NTD interventions?
  - What incentives do providers face with respect to delivering NTD services, if any? Do these incentives differ by disease-specific programme?
  - Who has the responsibility for purchasing? What are the different purchasing methods, and do these differ between NTD programmes and other health programmes?

Potential actions

- Identify government information for NTD revenues and expenditures and establish routine data collection and analysis of financial data.
- Estimate NTD resource needs and funding gaps.
- Coordinate and track NTD programme expenditures by source (e.g. government, donor, private sector).
- Analyse and forecast funding gaps and needs to support domestic resource mobilization.
- Align public financial management processes with health budgeting practices and health financing objectives.

4.2.3 Health workforce

By answering these questions, national governments will *identify how human resources for NTDs are allocated, NTD-specific training opportunities for health workers, and the management functions and systems that ensure health workers can perform their jobs effectively*.

- What are the human resource targets for the endemic area? What are the human resource gaps in terms of numbers, gender and geographical distribution? How do these gaps affect NTD interventions? Is task-shifting used to compensate for human resource gaps?
- What pre-service NTD training opportunities are available (e.g. trachomatous trichiasis surgical training in medical school and diagnostic skills)? What specific in-service training opportunities are available to health providers? Are these training opportunities accredited or certified by an independent body? Do any of these trainings happen together with pre- or in-service training for other health programmes that may have overlapping human resources?
- How are trainings of workers from other sectors who perform NTD functions (e.g. teachers for school-based MDA) conducted and coordinated with the health sector?
- Do local government and/or hospital managers conduct supportive supervision that includes oversight of facility-based NTD services? Community based services?
- Does the national government have a system to track the NTD training and skills of health providers and other workers? Is it used to support decision-making?
- Are human resource management systems mainstreamed within the health ministry or are human resources for NTDs managed separately?

Potential actions

- Advocate to fill human resource gaps that affect interventions against NTDs.
- Identify future training needs.
- Clarify opportunities for supervision and skills tracking.
- Inform the development or functionality of the human resource information system.

4.2.4 Information

By answering these questions, national governments will *identify how NTD data are collected, analysed, and used to inform policies, guidelines and health service provision at all levels of the health system*.

- Which NTD indicators are included in the health management information system?
- Do NTD data from health facilities and community programmes influence national decision-making? Are all such data stored in a national repository such that it is used along with data from other health programmes when decisions are made?
- How do NTD data influence decisions at the local government level?
- Does the national government provide feedback to district and sub-district levels on programme performance? Do local governments conduct their own analysis?
- Are NTD programme data widely accessible and transparent to the public? Are they available only upon request or published on the web?
- Do local and national governments collect and use data disaggregated by sex and age to analyse the gendered dimensions of NTD services and access?

Potential actions

- Rationalize NTD data collection and analysis pathways to ensure that accurate and timely data are available to policy-makers at all levels.
- Discuss options for mainstreaming NTD data collection, storage, analysis and use into broader health system mechanisms.
- Provide NTD data briefs or dashboards to local governments that are also accessible to the public.

4.2.5 Medical products, vaccines and technologies

By answering these questions, national governments will *understand the sustainability implications of their supply chain mechanisms for medical products and technologies, including a fuller understanding of the implications of procurement, logistics data and equitable access to ensure that medicines and products are available and accessible into the future*.

- Is quantification and forecasting of medicines and supplies done within a central medical store or by an integrated NTD or disease-specific programme? Or are these responsibilities shared in some way? What information is used for forecasting need for the quantification process?
- How integrated is the NTD medicine management system into broad systems? Which products are included?
- Are import processes streamlined to reduce delays?
- Are all steps of the NTD supply chain fragmented in their financing and administration? Or are certain steps (or all) mainstreamed within the larger health system supply chain (e.g. procurement, storage, distribution of consumables)?
- Are orders tracked and monitored through a logistics management information system? To what extent is this system automated?
- What measures are taken to ensure equitable access to and efficient utilization of medical products and technologies? Are there adequate measures for reverse logistics and avoiding wastage?
- How are stockouts of NTD medicines and supplies tracked and how often do they occur?
- What reverse supply chain measures are in place?
- Does the national government have quality assurance standards for NTD medicines, regardless of how they are procured?
- If the country uses donated medicines, who is responsible for developing and submitting the Joint Application Package?

Potential actions

- Mainstream NTD logistics data into a health system wide logistics management information system.
- Mainstream procurement mechanisms for NTD medicines into wider procurement mechanisms.
- Review import procedures to reduce bottlenecks and delays.
- Train central medical store staff to use the joint application process for donated medicines.

4.2.6 Service delivery

By answering these questions, national governments will *detect service gaps, understand the level of the health system in which specific NTD services are provided, identify service mainstreaming opportunities, and clarify diagnostic options to ensure high-quality services can be maintained*.

- Are any NTD services included in service packages or benefit entitlement policies? If NTD programmes have been included in the benefit entitlement policies, has there been a change in access to services? If they have not been included, what are the barriers to inclusion?
- What percentage of the at-risk population has access to NTD services at the community, health centre and hospital levels, by NTD?
- Which NTDs can be diagnosed (either clinically or pathologically) and treated at the primary health care level? At secondary hospitals? At tertiary (referral) hospitals?
- Are NTD interventions mainstreamed into the health system at the point of service? Or are they separate, either by location, provider or schedule?
- Does the continuum of care ensure that patients with NTDs are treated in a timely and high-quality manner? What referral mechanisms are in place and how are patients tracked?
- Do health facilities employ quality improvement mechanisms and tracking indicators?
- Where does the country rank on the NTD service coverage index (described in reference *(13)*)?

Potential actions

- Integrate diagnostic and treatment capabilities for NTDs at the facility or hospital level.
- Mainstream NTD services at the facility level, through improved diagnostic ability, training and inclusion into the essential package of services.
- Reshape referral mechanisms to ensure patient tracking and timely care.

4.3 Non-health sectors

By answering these questions, national governments will *understand the assets non-health sectors contribute to a multisectoral response to NTDs as well as opportunities for future coordination efforts*.

- Is there a multisectoral coordination body/strategy/framework that addresses NTDs at any level of government? If yes, does it including roles and responsibilities, indicators to track progress, list of investments from each sector?
- Which non-health sectors are included in the planning, financing and implementation of NTD interventions (e.g. education; WASH; gender and social inclusion; agriculture/nutrition; environment/vector control; and private sector)?
- Are any NTD interventions financed, planned or supported by non-health sectors?
- Are NTD programme data used by any other ministry, for example, do WASH interventions take into account NTD epidemiology during planning and implementation? Do nutrition programmes address specific challenges in communities where NTDs are endemic (e.g. anaemia)?

Potential actions

- Create or strengthen existing multisectoral committees to coordinate inputs and activities and encourage co-investment.
- Empower education and health ministries to co-develop school-based deworming strategies and plans.
- Support nutrition programmes to fully understand the needs of NTD-endemic areas.

Conclusion

SECTION 05

Conclusion

Governments and stakeholders have made significant progress towards achieving the NTD targets and milestones; however, sustaining and accelerating these gains and achieving the targets for control, elimination and eradication requires additional effort and effective approaches. Building on the road map for 2030, this sustainability framework identifies how governments can harness multisectoral action to improve the sustainability of interventions against NTDs, leverage existing health systems structures to strengthen NTD programmes and expand collaboration with other related sectors. By leveraging these new approaches, it supports the identification of pathways towards ambitious, measurable actions to strengthen sustainability. Countries are encouraged to consider the impact of these new approaches on their NTD programming to ensure continuity of care.

This sustainability framework is a call to action for Member States to identify priorities and develop strategies and actions that address not only emerging disease epidemiology when conducting planning for NTD programming but also social, operational, managerial and political concerns that influence the successful delivery and use of NTD services. Reporting on global progress and revisions will be aligned with the timelines and indicators of the road map.

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Annex 1. Consultation process

The sustainability framework was developed following a series of consultations with Member States, disease experts and the wider global NTD and health systems community. This process included an online survey completed by 335 respondents, review of more than 40 peer-reviewed and grey literature, 22 key informant interviews with subject matter experts and four focus groups with Member States, disease experts and the wider global health community. The key consultative steps and outcomes are summarized below.

- **March 2020:** Input from stakeholders obtained through an online questionnaire. Questionnaire results are available here: WHO Sustainability Framework Survey Results
- **June 2020:** Draft sustainability framework for action PowerPoint slide deck based on responses to the online questionnaire and targeted expert exploratory interviews. The slides are available here: WHO NTD Sustainability Framework for Action
- **July–August 2020:** Collection of stakeholder input on the draft framework PowerPoint slide deck through a series of webinars with Member States, the global health community and individual subject matter experts (areas of expertise included One Health, gender and equity and universal health coverage).

Member States and individuals were able to submit specific comments and suggestions via NTDRoad map@who.int.

Annex 2. Alignment with the monitoring and evaluation framework

The monitoring and evaluation framework describes how indicators will be collected, recorded and used for decision-making nationally and globally. The 10 indicators listed below have implications for sustainability and are linked to WHO priorities. Countries are highly encouraged to adapt and develop sustainability indicators to monitor progress against country-specific objectives.

NTD road map 2030 indicators: CROSS-CUTTING TARGETS	Target	Road Map Cross- Cutting Theme	Health system pillar
Integrated treatment coverage index for preventive chemotherapy	**75%**	Integration	Service delivery
Number of countries that adopt and implement integrated skin neglected tropical disease strategies	**40%**	Integration	Service delivery
Share of countries with neglected tropical diseases integrated in national health strategies/plan	**90%**	Integration	Leadership and governance
Percentage reduction in number of deaths from vector-borne neglected tropical diseases (relative to 2016) – to achieve WHO's global vector control response goal	**75%**	Coordination	Access to essential medicines and supplies
Access to at least basic water supply, sanitation and hygiene in areas endemic for neglected tropical diseases – to achieve targets 6.1 and 6.2 of Sustainable SDG6 Development Goal 3	**100%**	Coordination	Service delivery
Share of the population at risk protected against catastrophhic out-of-pocket health expenditure due to neglected tropical diseases – to achieve target 3.8 of Sustainable Development Goal 3	**90%**	Mainstreaming	Health financing
Share of countries including neglected tropical diseases interventions in their package of essential services and budgeting for them	**90%**	Mainstreaming	Health financing service delivery
Share of countries with guidelines for management of neglected tropical diseases-related disabilities within national health systems	**90%**	Mainstreaming	Service delivery Health financing
Share of countries reporting on all relevant endemic neglected tropical diseases	**90%**	Mainstreaming	Health information system
Share of countries collecting and reporting data on neglected tropical diseases disaggregated by gender	**90%**	Mainstreaming	Health information system

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