
Neglected Tropical Disease programmes

A public health perspective

Seminar: IDIC Theme Based Training Seminar on travel-related infections and tropical diseases

2 February 2024



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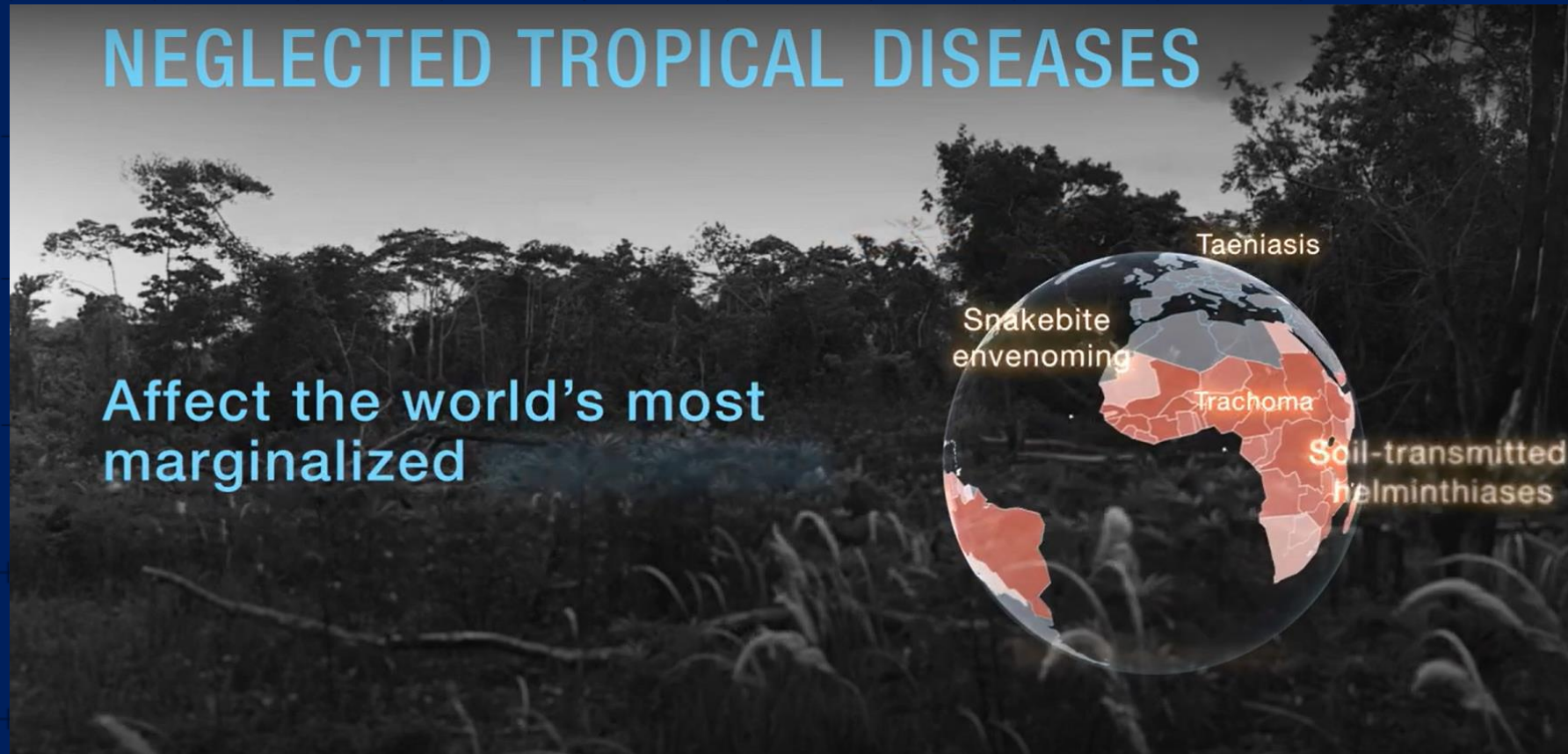
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Outline

1. Introduction to Neglected Tropical Diseases (NTDs)
2. Global strategy: NTD road map and Companion documents
3. NTDs in relation to travel – select highlights
4. Tracking progress towards 2030 goals
5. Resources & Key message

Introduction - Short video: 45 seconds

<https://www.youtube.com/watch?v=mAmkx74LRAU>



World Health
Organization

Neglected tropical diseases

Ectoparasites

Scabies



Protozoa



Chagas disease

Leishmaniasis

Human African trypanosomiasis

Viruses

Rabies



Dengue and chikungunya

Noncommunicable diseases



Snake bite

Fungi

Mycetoma

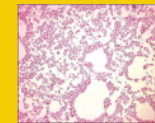


Chromoblastomycosis and other deep mycoses

Bacteria

Buruli ulcer

Leprosy



Noma

Trachoma

Yaws

Helminths



Taeniasis/Cysticercosis

Echinococcosis

Dracunculiasis

Foodborne trematodiasis

Lymphatic filariasis

Soil-transmitted helminthiasis

Schistosomiasis

Onchocerciasis

Neglected Tropical Diseases – Public Health Targets

They affect some of the world's most marginalized and underprivileged communities, predominantly in Africa, Asia and the Americas.

2 diseases are targeted for **eradication**

11 are targeted for **elimination** or **elimination as a public health problem**. The rest are for **control**

Characteristics of systemic neglect

- Weak/incomplete data
- Absence from most national systems
- Lack of resources: technical, funds, personnel etc.



Ectoparasites

Scabies and other ectoparasitoses



Protozoa

Chagas disease
Human African trypanosomiasis
Leishmaniasis



Bacteria

Buruli ulcer
Leprosy
Trachoma
Yaws

Noma



Fungi

Mycetoma, chromoblastomycosis and other deep mycoses



Viruses

Rabies
Dengue and chikungunya



Helminths

Dracunculiasis
Echinococcosis
Foodborne trematodiasis
Lymphatic filariasis
Onchocerciasis
Schistosomiasis
Soil-transmitted helminthiasis
Taeniasis and cysticercosis



Non-communicable diseases

Snakebite envenoming

NTDs and travel – Select examples to highlight

Population level: Outbreaks

- Dengue & chikungunya
- Leishmaniasis (visceral, cutaneous)
- Dracunculiasis
- Mass movements:
 - Cross-border: Onchocerciasis
 - Humanitarian crises crowding: Scabies

Individual level – Case reports

- Schistosomiasis
- Chagas
- Zoonoses: rabies, snake bite envenoming, food borne trematodes

- **Innovative and intensified disease management:** Buruli ulcer, Leishmaniasis, Chagas, African human trypanosomiasis, leprosy, dracunculiasis, mycetoma, chromoblastomycosis, other deep mycoses
- **Preventive chemotherapy (mass treatments):** trachoma, schistosomiasis, soil-transmitted helminthiasis, onchocerciasis, lymphatic filariasis, scabies, yaws
- **Vector control:** Dengue, Chikungunya
- **Veterinary public health:** rabies, taeniasis, cysticercosis, food-born trematodes, snake-bite envenoming, echinococcosis,
- **Provision of safe water, sanitation and hygiene (WASH):**
 - Other ectoparasitoses: tungiasis

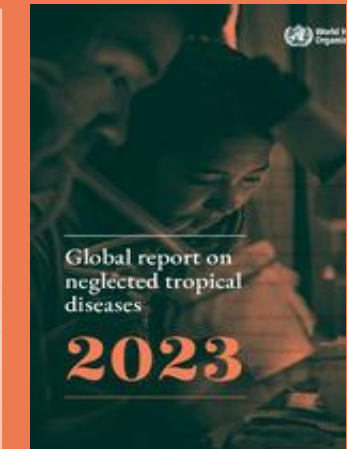
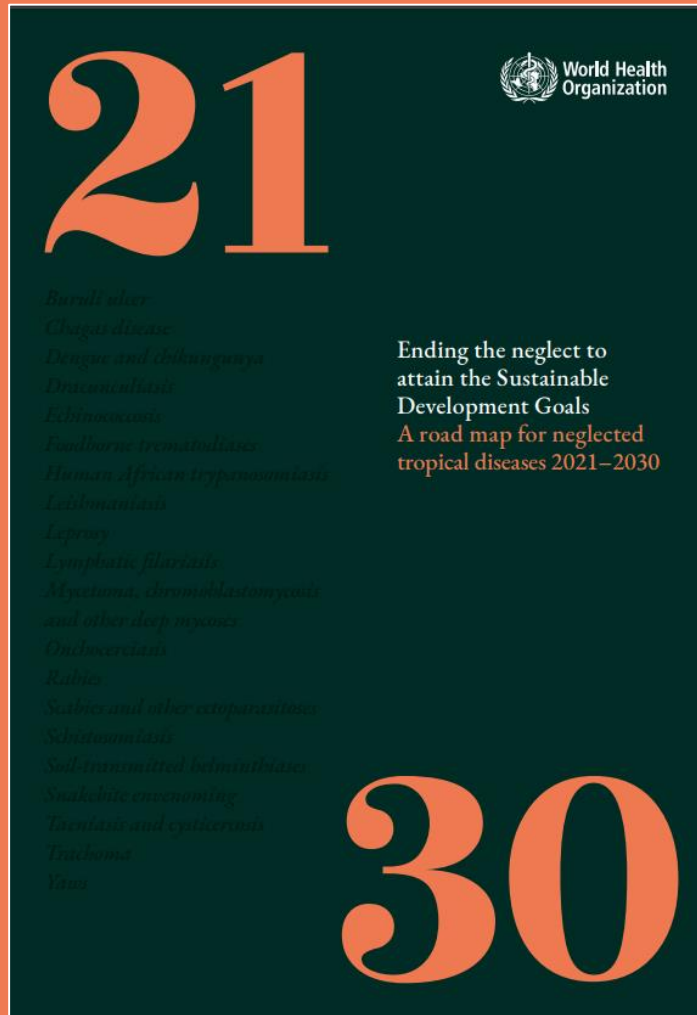


“ We prevent, control, eliminate and eradicate NTDs by reaching **EVERYONE** ...”

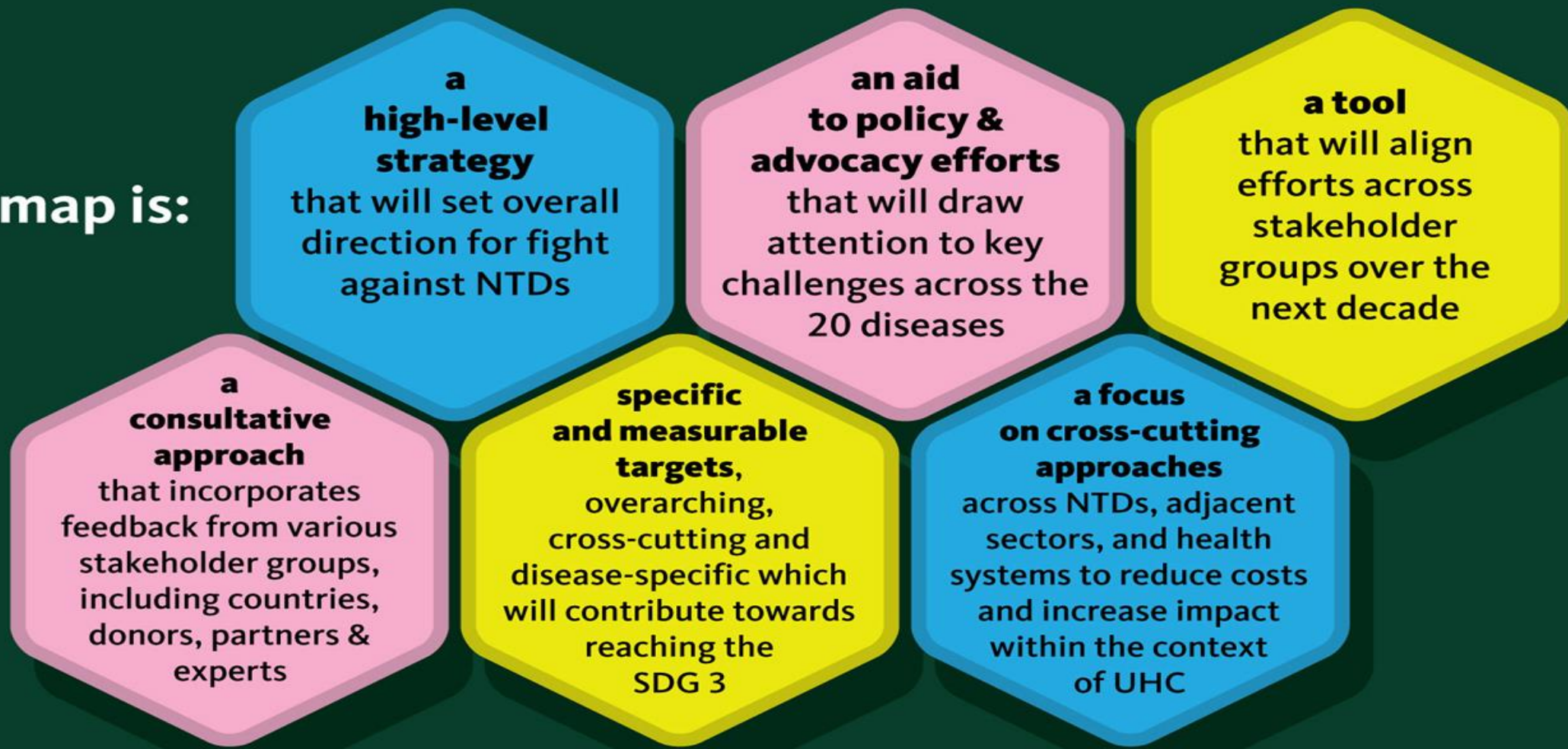


NTDs are tracers of equity for Sustainable Development Goal (SDG) targets 3.8 and 6.1/6.2

Global strategy: NTD road map & companion documents



The road map is:



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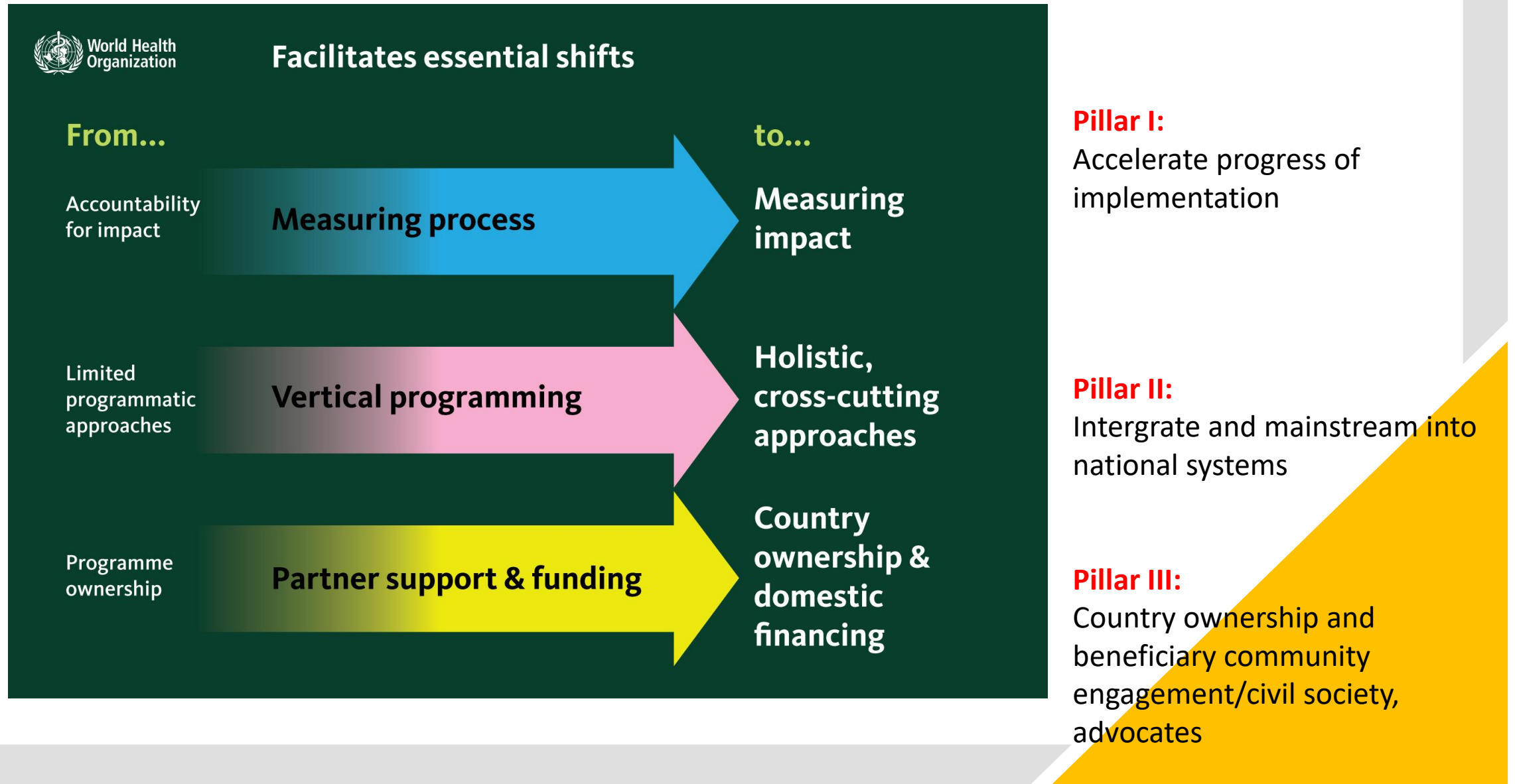


Ending the neglect to
attain the Sustainable
Development Goals
A road map for neglected
tropical diseases 2021–2030

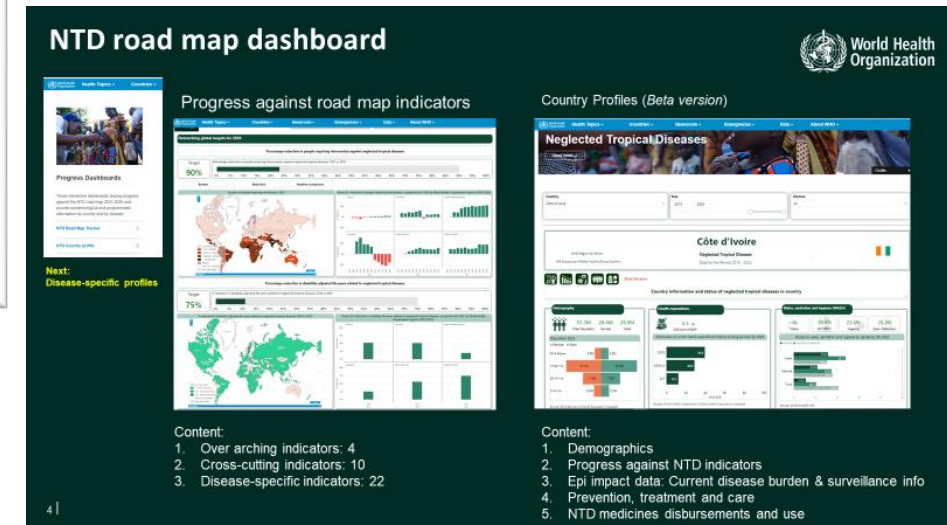
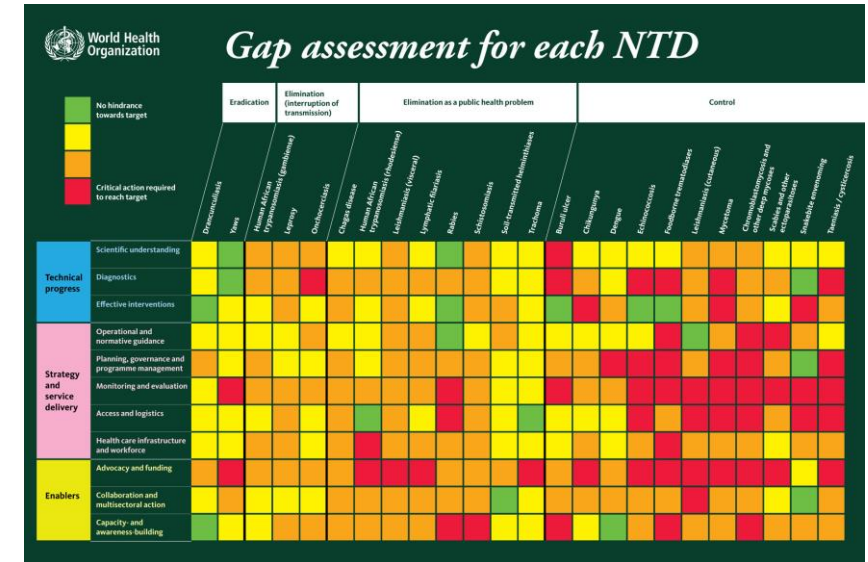
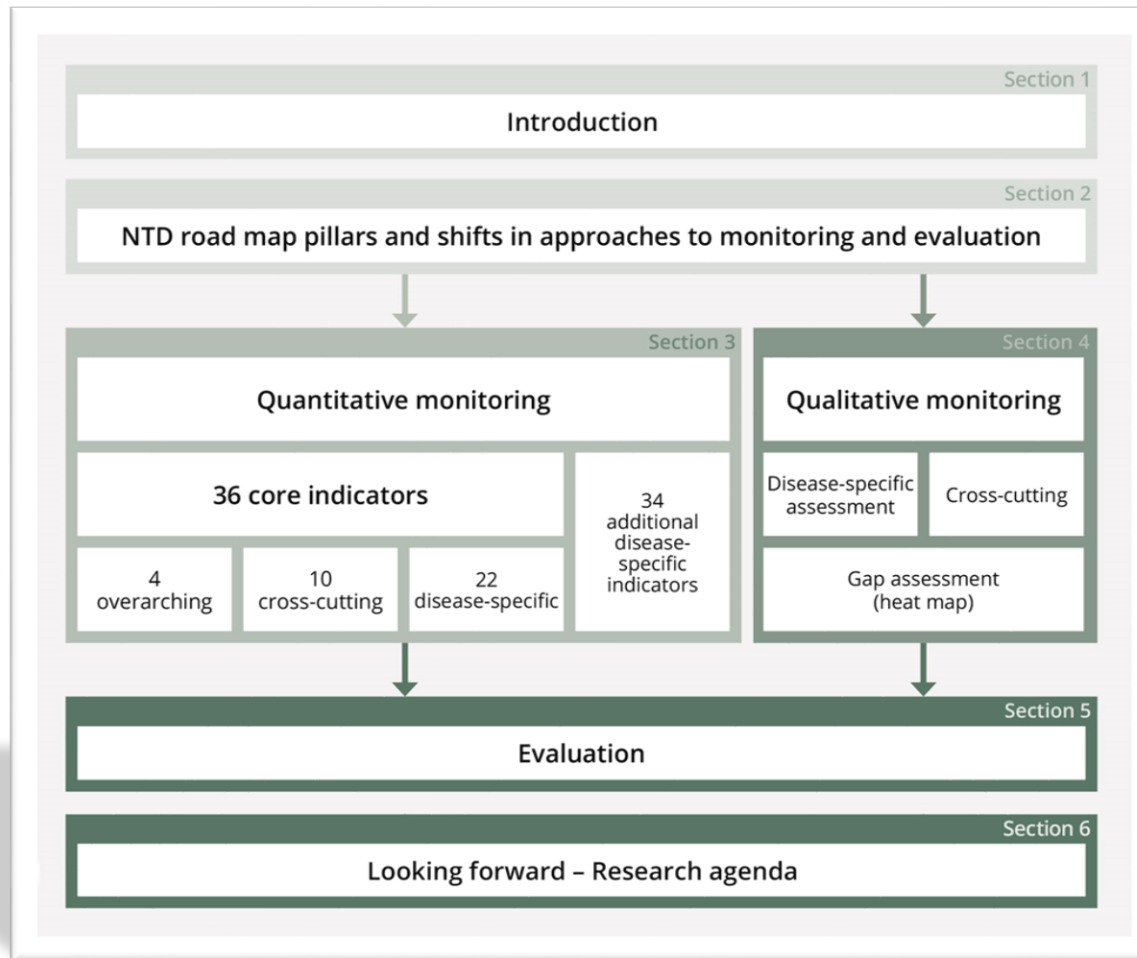
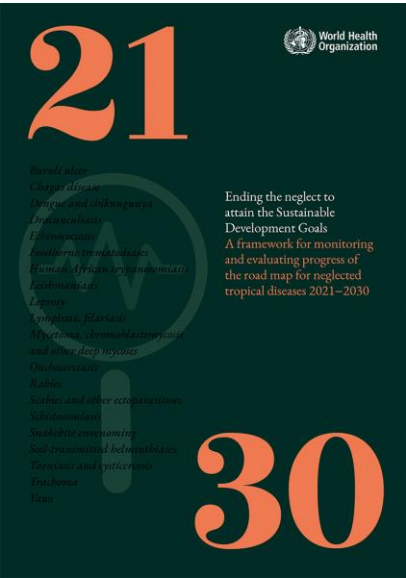
30

How and when to bring large-scale interventions to an end

Strategic shifts of NTD road map Pillars II and III



Tracking progress towards 2030 goals



NTD road map tracker: global, regional, country progress:
<https://www.who.int/teams/control-of-neglected-tropical-diseases/data-platforms-and-tools/road-map-tracker>

NTD targets for 2030

Overarching targets Top-line targets for NTDs, in line with the Sustainable Development Goals and WHO's 13th General Programme of Work

 **90%** Fewer people requiring interventions against NTDs

 **75%** Fewer NTD-related DALYs

100 Countries having eliminated at least one NTD

2 NTDs eradicated

Cross-cutting targets

 **75%** Integrated treatment coverage index for preventive chemotherapy

 **40** Number of countries that adopt and implement integrated skin neglected tropical disease strategies

90% Share of the population at risk protected against catastrophic out-of-pocket health expenditure due to neglected tropical diseases – to achieve SDG 3.8

100% Access to at least basic water supply, sanitation and hygiene in endemic areas – to achieve SDGs 6.1 and 6.2

 **75%** Fewer vector-borne NTD deaths (relative to 2016) – to achieve WHO's Global Vector Control Response goal

90% of endemic countries...

- * reporting on all relevant endemic NTDs
- * with NTDs integrated in national health strategies/plans
- * with guidelines for management of NTD-related disabilities within national health systems
- * collecting and reporting NTD data disaggregated by gender
- * including NTD interventions in their package of essential services and budgeting for them

Disease-specific targets

Targets relevant to individual diseases

Disease	Indicator	2020	2023	2025	2030
TARGETED FOR ERADICATION					
Dracunculiasis	Number of countries certified free of transmission	189 (97%)	189 (97%)	191 (98%)	194 (100%)
Yaws	Number of countries certified free of transmission	1 (1%)	97 (50%)	136 (70%)	194 (100%)
TARGETED FOR ELIMINATION (INTERRUPTION OF TRANSMISSION)					
Human African trypanosomiasis (gambiense)	Number of countries verified for interruption of transmission	0	0	5 (21%)	15 (62%)
Leprosy	Number of countries with zero new indigenous cases	50 (26%)	75 (39%)	95 (49%)	120 (62%)
Onchocerciasis	Number of countries verified for interruption of transmission	4 (12%)	5 (13%)	8 (21%)	12 (31%)
TARGETED FOR ELIMINATION AS A PUBLIC HEALTH PROBLEM (public health problem)					
Chagas disease	Number of countries achieving interruption of transmission through the four transmission routes (vectorial, transfusional, transplantation and congenital), with 75% antiparasitic treatment coverage of eligible cases	0	4 (10%)	10 (24%)	15 (37%)
Human African trypanosomiasis (rhodesiense)	Number of countries validated for elimination as a public health problem (defined as < 1 case / 10 000 people per year, in each health district of the country averaged over the previous 5-year period)	0	2 (15%)	4 (31%)	8 (61%)
Leishmaniasis (visceral)	Number of countries validated for elimination as a public health problem (defined as < 1% case fatality rate due to primary disease)	0	32 (43%)	56 (75%)	64 (85%)
Lymphatic filariasis	Number of countries validated for elimination as a public health problem (defined as infection sustained below TAS thresholds for at least 4 years after stopping MDA; availability of essential package of care in all areas with known patients)	19 (26%)	23 (32%)	34 (47%)	58 (81%)
Rabies	Number of countries having achieved zero human deaths from rabies	80 (47%)	89 (53%)	113 (67%)	155 (92%)
Schistosomiasis	Number of countries validated for elimination as a public health problem (defined as < 1% proportion of heavy intensity infections)	26 (33%)	49 (63%)	69 (88%)	78 (100%)
Soil-transmitted helminthiasis	Number of countries validated for elimination as a public health problem (defined as < 2% proportion of soil-transmitted helminth infections of moderate and heavy intensity due to <i>A. lumbricoides</i> , <i>T. trichuria</i> , <i>N. americanus</i> and <i>A. duodenale</i>)	7 (7%)	60 (60%)	70 (70%)	96 (96%)
Trachoma	Number of countries validated for elimination as a public health problem (defined as (i) a prevalence of trachomatous trichiasis “unknown to the health system” of < 0.2% in ≥ 15-year-olds in each formerly endemic district; (ii) a prevalence of trachomatous inflammation—follicular in children aged 1–9 years of < 5% in each formerly endemic district; and (iii) written evidence that the health system is able to identify and manage incident trachomatous trichiasis cases, using defined strategies, with evidence of appropriate financial resources to implement those strategies)	8 (13%)	28 (44%)	43 (68%)	64 (100%)
TARGETED FOR CONTROL					
Buruli ulcer	Proportion of cases in category III (late stage) at diagnosis	30%	< 22%	< 18%	< 10%
Dengue and chikungunya	Case fatality rate due to dengue	0.80%	0.50%	0.50%	0%
Echinococcosis	Number of countries with intensified control for cystic echinococcosis in hyperendemic areas	1	4	9	17
Foodborne trematodiasis	Number of countries with intensified control in hyperendemic areas	N/A	3 (3%)	6 (7%)	11 (12%)
Leishmaniasis (cutaneous)	Number of countries having reached: 85% of all cases are detected and reported, and 95% of reported cases are treated	N/A	44 (51%)	66 (76%)	87 (100%)
Mycetoma, chromoblastomycosis and other deep mycoses	Number of countries where mycetoma, chromoblastomycosis, sporotrichosis and/or paracoccidioidomycosis are included in national control programmes and surveillance systems	1	4	8	15
Scabies and other ectoparasitoses	Number of countries having incorporated scabies management in the universal health coverage package of care	0	25 (13%)	50 (26%)	194 (100%)
Snakebite envenoming	Number of countries with incidence of snakebite achieving reduction of mortality by 50%	N/A	39 (30%)	61 (46%)	132 (100%)
Taeniasis and cysticercosis	Number of countries with intensified control in hyperendemic areas	2 (3%)	4 (6%)	9 (14%)	17 (27%)

Note: In certain cases, reference to “countries” should be understood as signifying countries, territories and areas.

The NTD road map 2021-2030: progress

Information on progress in 2021-2022 can be found in the **Global report on neglected tropical diseases 2023**, published January 2023: The 2024 report is due soon.

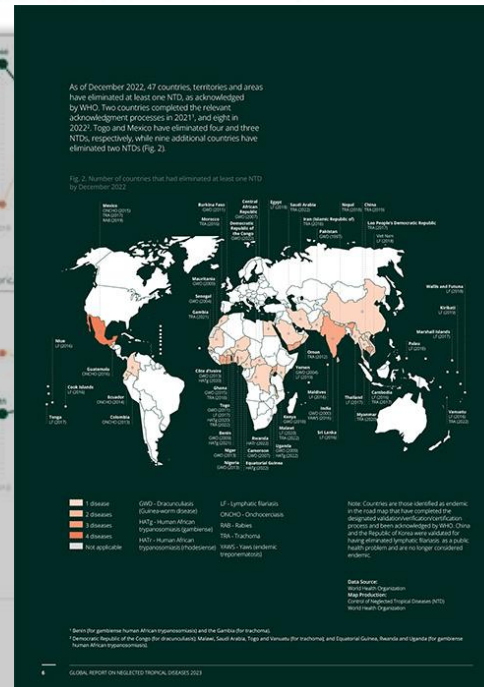
Webpages and dashboards are also updated periodically



Progress has been made since the launch of the road map

However, there have been **challenges** along the way towards the 2030 targets.

Work is ongoing to overcome these obstacles



Progress / Target 4 - Eradication: Mandatory global notification

Road map overarching target 4:

Eradication of two neglected tropical diseases by 2030

Target:

Dracunculiasis

eradication

Achieved:

Only **13 cases** of Guinea-worm disease in 2022, against an estimated 3.5 million in the 1980s.

3 cases reported so far in 2023 (Jan-July)

DRC certified in 2022.



Key challenges:

- **Migration, cross-border**
- **Zoonotic infections**
- **Conflict affected inaccessible areas**

Progress / target 4: Eradication – **Mandatory notification**

Road map overarching target 4:

Eradication of two neglected tropical diseases by 2030

Target:

Yaws

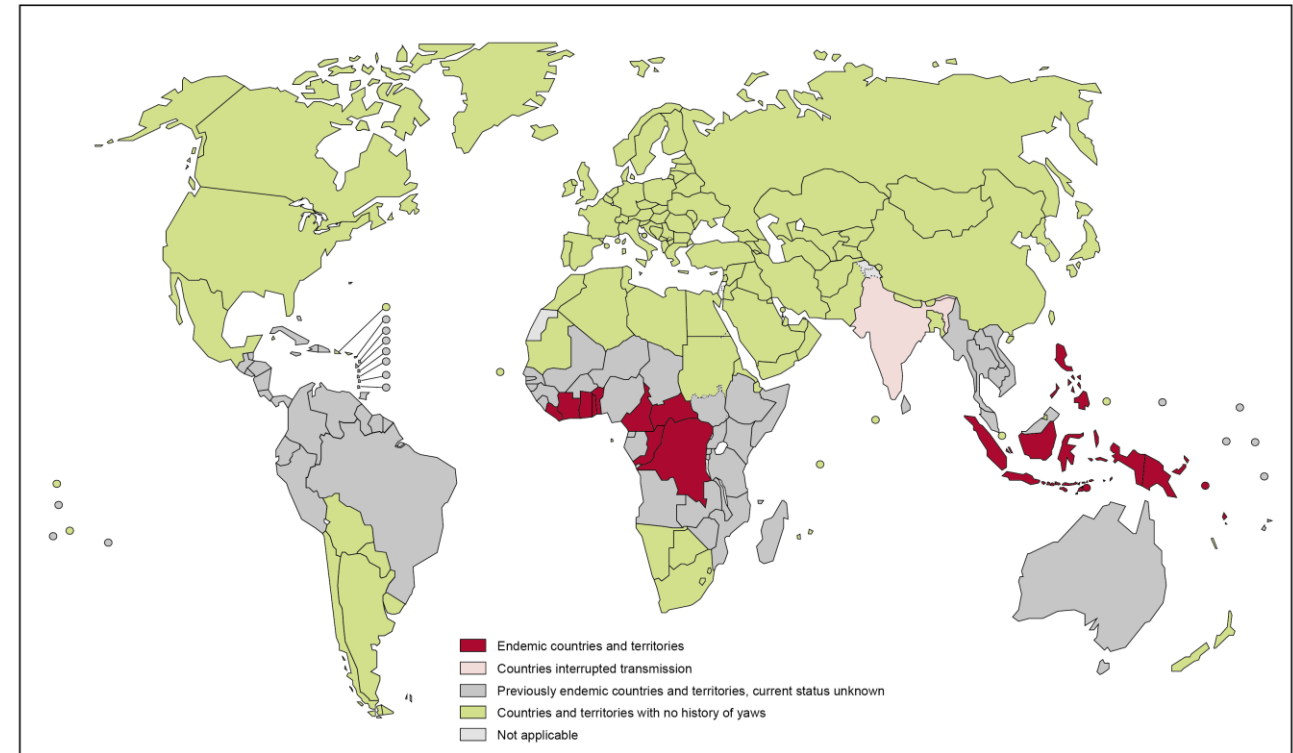
eradication

Achieved:

Intensified surveillance, capacity strengthening and MDA for yaws in several countries in WHO's African, American, South-East Asia and Western Pacific regions.

168,239 suspected cases in 2022.

Endemicity status of yaws worldwide, 2021



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Data Source: World Health Organization
Map Production: Control of Neglected
Tropical Diseases (NTD)
World Health Organization



Key challenge:

- Effective surveillance and response
- Access to antibiotics for mass treatments: Azithromycin

Progress / target 1

Road map overarching target 1 / SDG indicator 3.3.5:

Number of people requiring interventions against neglected tropical diseases

Target:

-90%

between 2010 and 2030

Achieved:

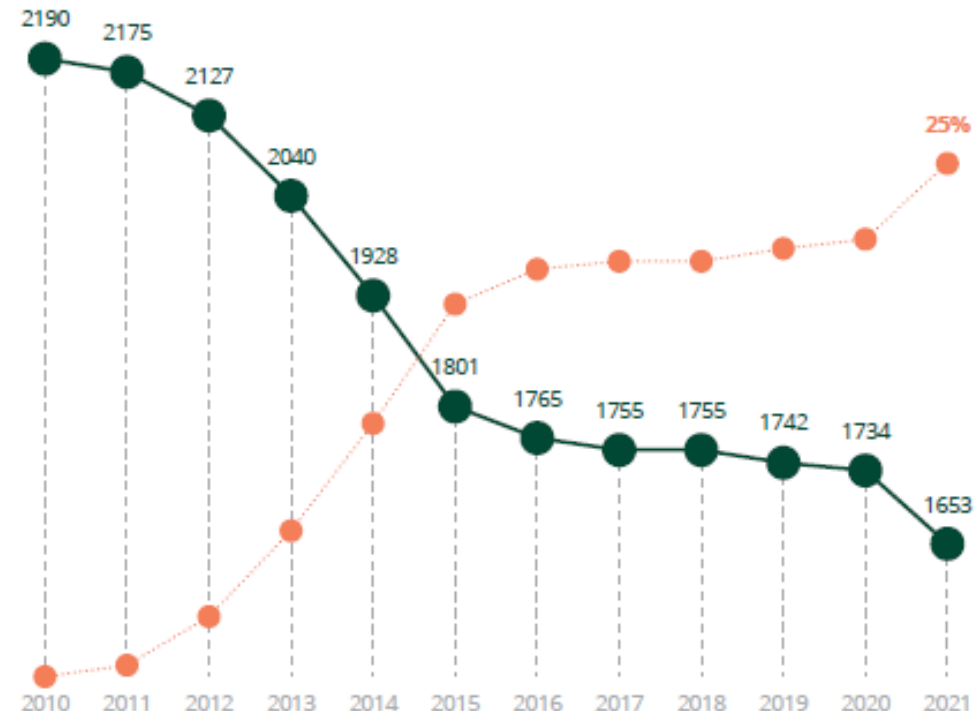
-25%

between 2010 and 2021

A decline of some 80 million people occurred between 2020 and 2021 alone

Fig. 1. Number of people requiring interventions against NTDs (green) and associated percentage reduction (orange) globally and regionally, 2010–2021

Global



Progress / target 2

Road map overarching target 2:

Reduction in disability-adjusted life years (DALYs)
related to NTDs

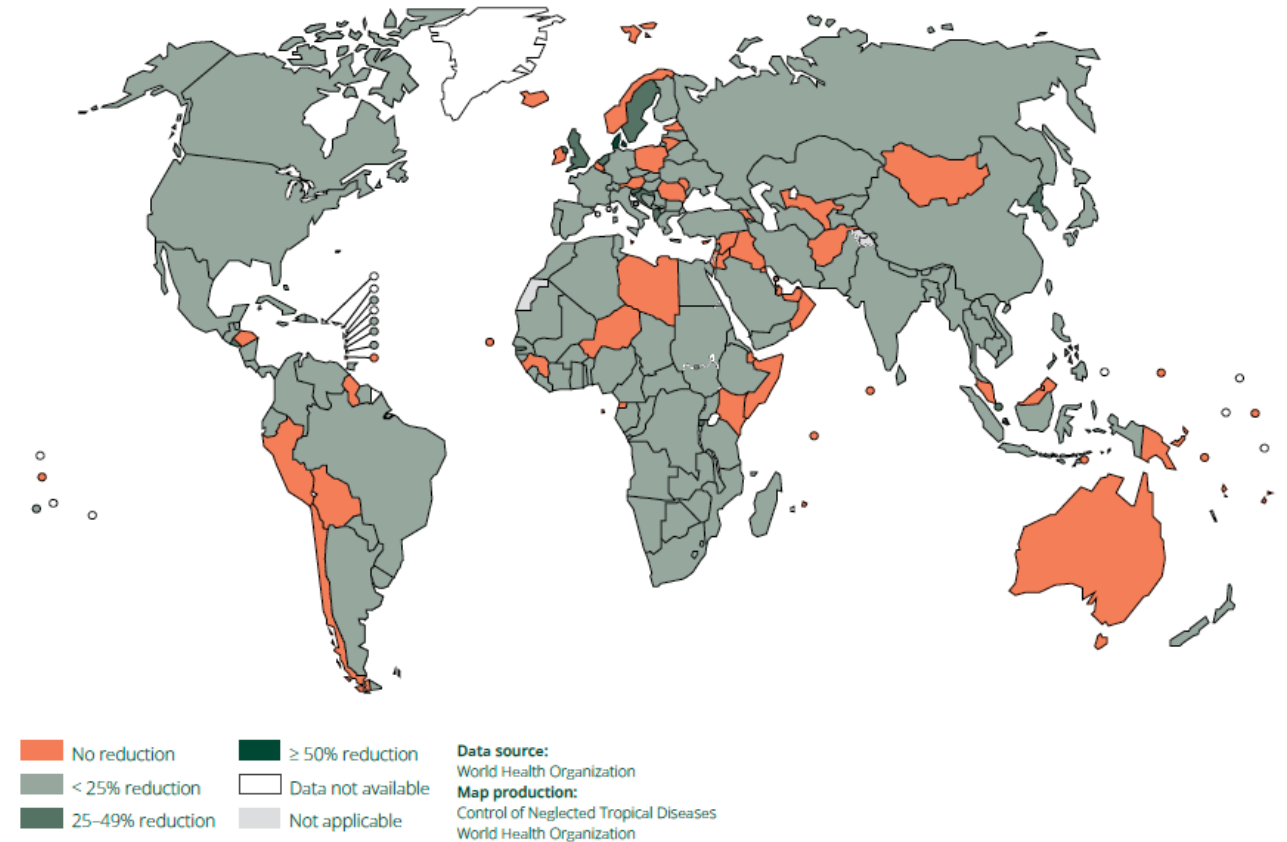
Target:

-75%

between 2015 and 2030

The burden of disease calculated in DALYs has gradually declined (-11% between 2015 and 2019) in the period preceding the launch of the road map

Fig. 4. Percentage reduction in DALYs related to NTDs, based on data available in 2019 versus 2015



DALYs data available only for 14 NTDs

Progress / target 3

Road map overarching target 3:

Number of countries having eliminated at least one NTD

Target:

100

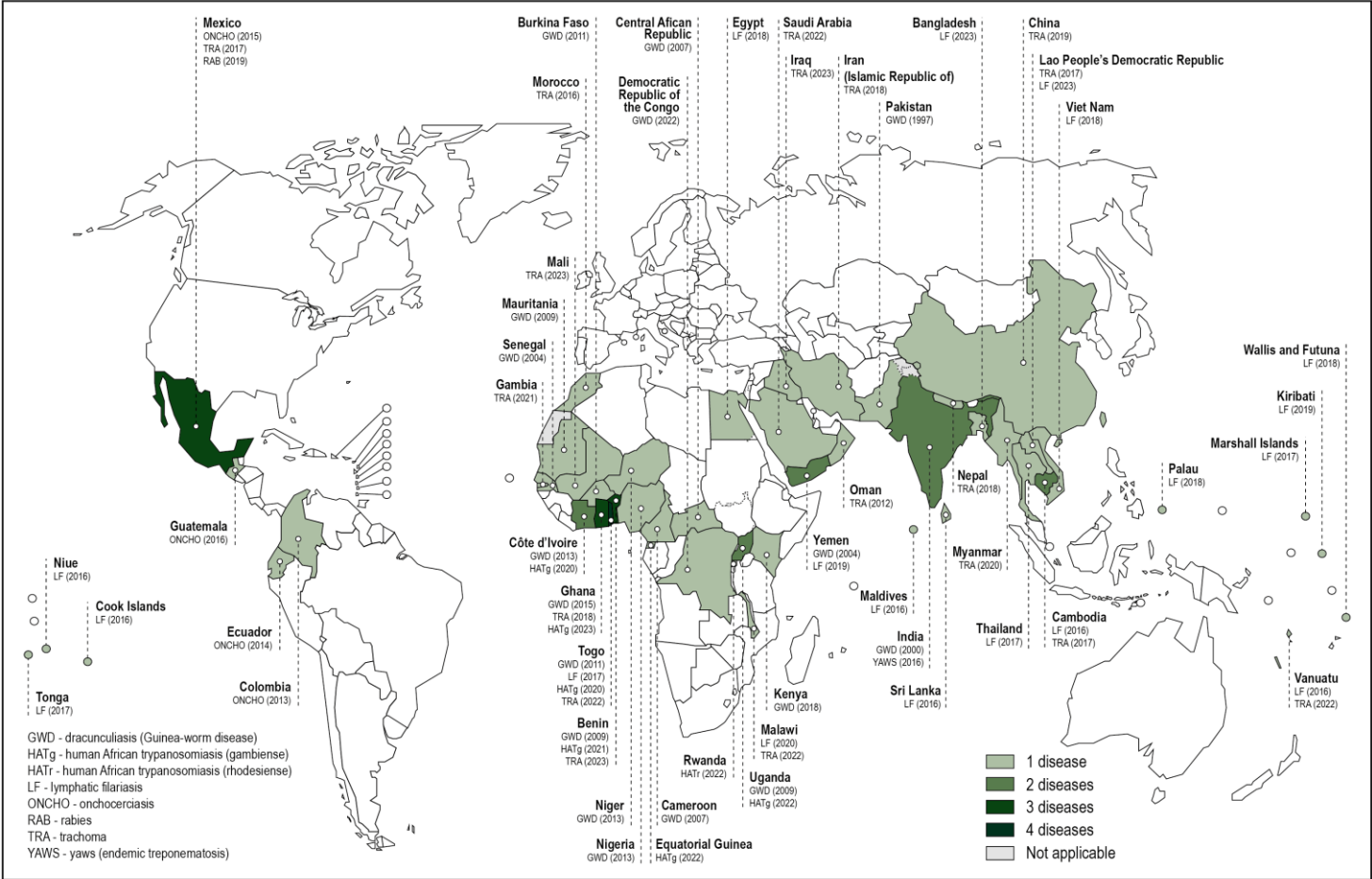
Countries by 2030

Achieved:

50

Countries as of August 2023

Countries having eliminated at least one neglected tropical disease (n=50 as of 1 August 2023)



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Data Source: World Health Organization
Map Production: Control of Neglected Tropical Diseases (NTD)
World Health Organization



Resources

1. WHO Dept of Neglected Tropical Diseases website:

- <https://www.who.int/teams/control-of-neglected-tropical-diseases/overview>
- Data portal: <https://www.who.int/teams/control-of-neglected-tropical-diseases/data-platforms-and-tools>

2. Open WHO training courses

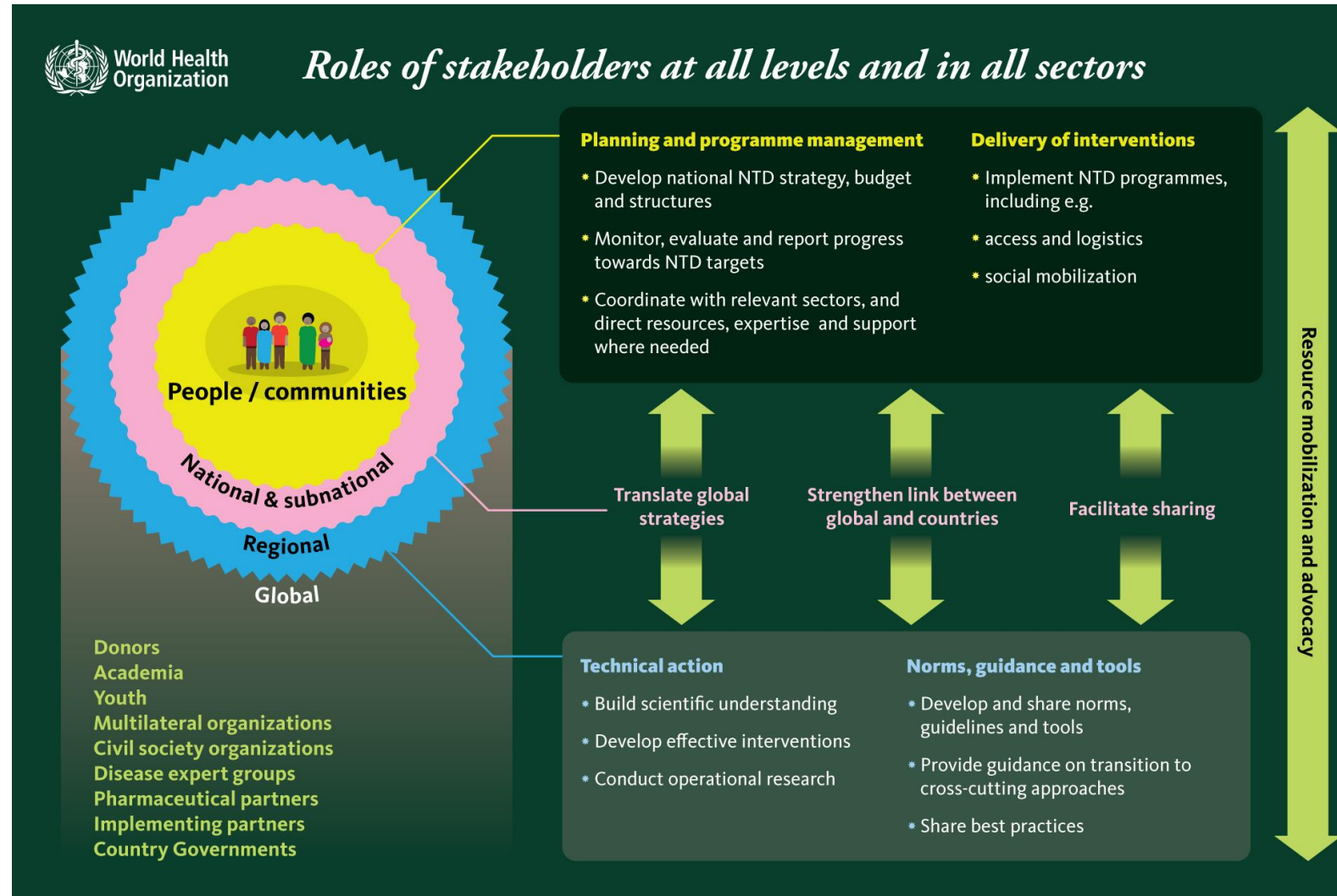
- NTD Channel - <https://openwho.org/channels/ntd>

3. NTD YouTube

- Webinars
- Meetings
- Trainings



Key message:



1. You are a stakeholder!

1. Equity & Human rights
UHC, PHC impact

2. NTD health work force is aged out

1. Need young people, professionals
2. Need to work differently across disciplines and sectors
3. Need to empower global south as equal partners in fight against NTDs (e.g Africa-China partnership in support for NTDs/SCH)

1. Fill the research and development gap, esp. beyond biomedical models



Thank you