



World Health
Organization

REGIONAL OFFICE FOR THE Eastern Mediterranean

NEGLECTED TROPICAL DISEASES IN THE EASTERN MEDITERRANEAN REGION

Neglected tropical diseases (NTDs) are a group of diverse medical conditions that are strongly associated with poverty. These diseases thrive in tropical areas, where they often overlap, but are also found in a wide range of geographical and social environments across the **Eastern Mediterranean Region**. Most of them are ancient diseases that have affected humanity for centuries.

Once widely prevalent, many NTDs have disappeared from large parts of the Region as economies developed and living conditions and hygiene improved. But they are still found in abundance in places where economic progress has been slower or where emerging crises have disrupted lives, infrastructure and health systems.

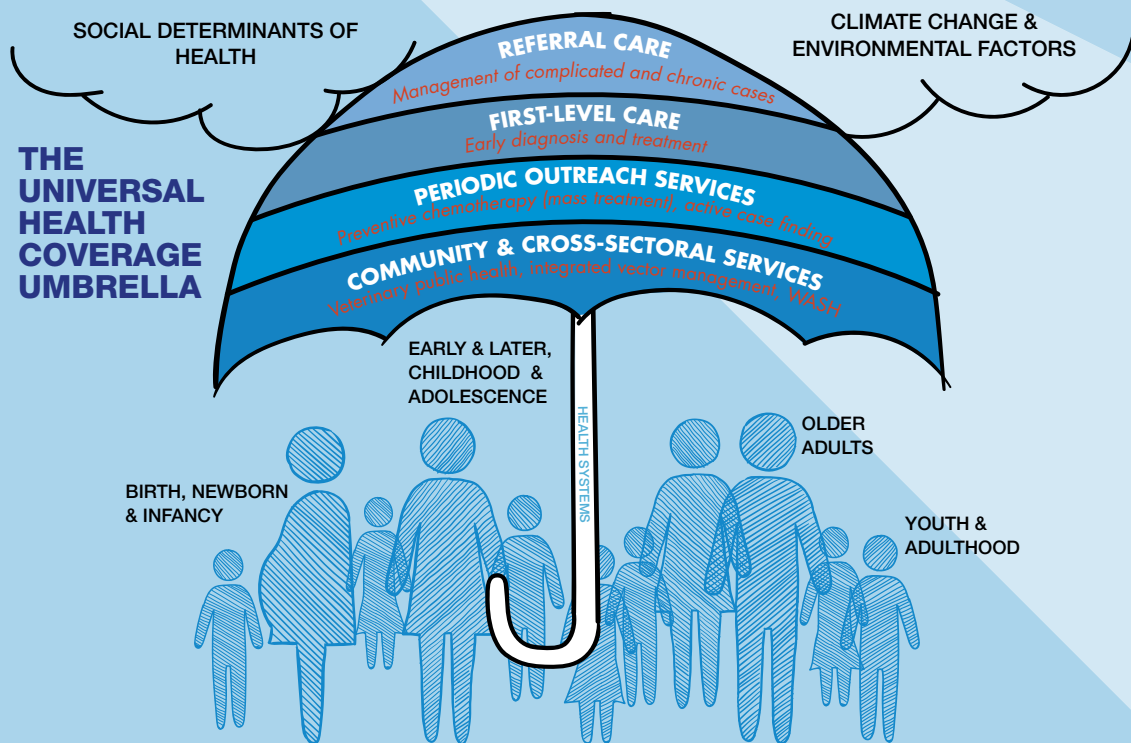
NTDs are strongly associated with the Agenda for Sustainable Development. Target 3.3 of Sustainable Development Goal 3 (the so-called “health goal”) aims at ending the epidemics of NTDs by 2030. NTDs are also relevant to Goal 1, which targets the ending of poverty in all its forms everywhere, as interventions to prevent and manage NTDs are highly cost-effective and can alleviate the financial burden of health care for families and health systems alike.

NTDs are also strongly linked to universal health coverage (Target 3.8). Succeeding in providing access to health services and essential medicines for NTDs will be an indicator of the overall success of universal health coverage, whose key principle is that “no one should be left behind”.

THE STRATEGIES

Two main strategies are being implemented in the Eastern Mediterranean Region to tackle the burden of NTDs.

- **Preventive chemotherapy** – the large-scale delivery of single-dose, quality-assured medicines, either alone or in combination, provided free of charge and at regular intervals to prevent morbidity and decrease transmission of selected diseases
- **Innovative and intensified disease management** – individual case management of diseases that are difficult to diagnose and treat, and which in most cases trigger severe clinical manifestations and complications
- **Vector ecology and management** – vector control through the safe and judicious use of public-health pesticides or through large-scale distribution of bednets
- **Safe drinking-water, basic sanitation and hygiene services, and education** – improved living conditions combined with health education to sustain reductions in prevalence of many of these diseases
- **Veterinary public health** – the community application of veterinary interventions to protect and improve human health



* Specific NTD interventions within the UHC

ACCELERATED EFFORTS IN THE EASTERN MEDITERRANEAN REGION

NTDs are a priority area of work in the Region for the period 2017–2021. In particular, the focus is on five diseases currently targeted for eradication, elimination or elimination as a public health problem: dracunculiasis/Guinea worm disease, onchocerciasis, schistosomiasis, lymphatic filariasis and trachoma.

WHO's goal within the next few years is to help rid the Region of the five priority diseases, and to reduce the burden of all other NTDs. It is expected that intensified efforts in 2017–2021 will generate momentum towards the 2030 targets of the Sustainable Development Goals – notably ending the epidemics of NTDs.

Two resolutions and two roadmaps guide WHO's work in this area. They set a vision, offer a framework and plan, provide

technical guidance to all actors and enable the tracking of progress towards the identified goals.

GLOBAL REFERENCES

- **Resolution WHA66.12.** Neglected tropical diseases. In: Sixty-sixth World Health Assembly, Geneva, 20–28 May 2013. Resolutions, decisions and annexes. Geneva: World Health Organization; 2013: 24 (WHA66/2013/REC/1; http://www.who.int/neglected_diseases/mediacentre/WHA_66.12_Eng.pdf
- **Accelerating work to overcome the global impact of neglected tropical diseases. A roadmap for implementation.** Geneva: World Health Organization; 2012. http://apps.who.int/iris/bitstream/10665/70809/1/WHO_HTM_NTD_2012.1_eng.pdf

DETECT AND REPORT AT LEAST 75%
OF CUTANEOUS LEISHMANIASIS;
TREAT AT LEAST 90% OF THEM
BY 2021



REGIONAL REFERENCES

- **WHO Regional Committee for the Eastern Mediterranean resolution EM/RC54/R.3** on neglected tropical diseases: an emerging public health problem in the Eastern Mediterranean Region. Cairo: WHO Regional Office for the Eastern Mediterranean; 2006
http://applications.emro.who.int/docs/em_rc54_r3_en.pdf, accessed 4 February 2018
- **Roadmap of WHO's work for the Eastern Mediterranean Region 2017–2021**. Cairo: WHO Regional Office for the Eastern Mediterranean; 2017
http://applications.emro.who.int/docs/EMROPUB_2017_19695_EN.pdf, accessed 4 February 2018

PROGRESS TOWARDS THE ELIMINATION OF NEGLECTED TROPICAL DISEASES IN THE REGION

The renewed focus on NTDs in the Region builds on the achievement of a number of milestones and goals in recent years. These accomplishments show a dynamic trend towards elimination of NTDs and reflect unprecedented momentum.

- Surveillance and awareness on **dracunculiasis/Guinea-worm disease** have been reinforced across Sudan, and the country is preparing to undergo certification.
- Very low levels of transmission of **onchocerciasis** have been achieved in Sudan and Yemen.
- Several low-endemic countries for **schistosomiasis** (Djibouti, Islamic Republic of Iran, Iraq, Jordan, Morocco, Oman) have started or are planning surveys to confirm interruption of its transmission; Egypt has launched a schistosomiasis elimination programme; Somalia has completed mapping and started mass treatment; large-scale distribution of praziquantel continues in Yemen despite the deteriorating security situation.

- Egypt has been validated by WHO as having eliminated **lymphatic filariasis** as a public-health problem (December 2017), while Yemen has started the WHO validation process; mapping has been completed in Sudan and mass drug administration has been scaled up.
- Oman and Morocco have been validated as having eliminated **trachoma** as a public health problem, the first and second countries to achieve that goal, globally. The Islamic Republic of Iran, Iraq and Libya are preparing dossiers and are set to initiate the WHO validation process.
- Deworming interventions for **soil-transmitted helminthiasis** have been launched in Egypt, Jordan, Somalia and the Syrian Arab Republic, have been scaled-up in Sudan, Yemen and among Palestinian refugees, and have restarted in Afghanistan; Pakistan has completed mapping of soil-transmitted helminths.
- Access to **leishmaniasis** services has been greatly strengthened in the Region's most affected countries: Afghanistan, Sudan and Syrian Arab Republic; support has been secured to restart activities in Yemen.
- **Leprosy** elimination activities have been scaled up, notably in Somalia and Sudan.
- The **Mycetoma** Research Centre, University of Khartoum, was designated as a WHO collaborating centre on mycetoma in 2015, the only one globally. World Health Assembly resolution WHA69.21 *Addressing the burden of mycetoma* was proposed by the Government of Sudan and adopted in 2016.
- Somalia established its NTD programme in 2015, and Pakistan in 2016.
- Significant domestic funding has been made available to combat NTDs by the Governments of Egypt and Sudan.
- Countries are experiencing an increasing trend in partner support to NTD programmes across the Region.



DISEASES AND TARGETS: 2018–2021

MAIN NTDs

Dracunculiasis (Guinea-worm disease)

Worm infection. Transmission occurs by drinking water contaminated with infected water fleas.

Strategy: surveillance, case detection, management.

Global target: eradication.

Regional target: certification of interruption of transmission and disease-free status in Sudan by 2019; declaration of the Region as dracunculiasis-free by 2019.



DRACUNCULIASIS
GUINEA WORM DISEASE

Onchocerciasis

Parasitic eye and skin disease transmitted by the bite of infected blackflies. Causes severe itching, skin damage and eye lesions eventually leading to visual impairment and permanent blindness.

Strategy: mass treatment of affected populations.

Global target: elimination where feasible.

Regional target: elimination (interruption of transmission) in Sudan and Yemen by 2021.



ONCHOCERCIASIS
(RIVER BLINDNESS)

Schistosomiasis

Worm infection. Transmission occurs when larval forms released by freshwater snails penetrate human skin during contact with infested water.

Strategy: mass treatment of populations living in endemic areas.

Global target: elimination in selected countries and Regions.

Regional target: control of morbidity achieved in Somalia and Sudan by 2021; elimination as a public health problem achieved in Egypt and Yemen by 2021; elimination (interruption of transmission) achieved in at least 2 countries by 2019 and in at least 4 countries by 2021.



SCHISTOSOMIASIS
(SNAIL FEVER)



PREVENTIVE CHEMOTHERAPY, SNAIL CONTROL AND ENVIRONMENTAL MANAGEMENT, SANITATION, AND ACCESS TO SAFE WATER ARE KEY INTERVENTIONS TO ELIMINATE SCHISTOSOMIASIS

Lymphatic filariasis

Mosquito-borne parasitic infection. Causes abnormal enlargement of limbs and genitals.

Strategy: mass treatment of populations living in endemic areas; morbidity management and disability prevention.

Global target: elimination as a public health problem.

Regional target: elimination as a public health problem in Yemen by 2019 and in Sudan by 2021.



LYMPHATIC FILARIASIS
(ELEPHANTIASIS)

Global target: elimination as a public health problem.

Regional target: six countries to achieve elimination as a public health problem by 2019; 12 countries to achieve elimination as a public health problem by 2021.

OTHER NTDS

Leishmaniasis

Infection transmitted through bites of infected female sandflies. The visceral form attacks internal organs and can be fatal if left untreated. The cutaneous form causes skin lesions that may be responsible for scarring and disfigurement, thus leading to social stigma.

Strategy: surveillance and early diagnosis; case management; vector and reservoir control.

Global target: elimination of visceral leishmaniasis in the South-East Asia Region; enhanced control for both forms elsewhere.

Trachoma

Bacterial infection transmitted through direct contact with eye or nasal discharge. Causes irreversible corneal opacities and blindness.

Strategy: surgery, antibiotics, facial cleanliness and environmental improvement (SAFE).



TRACHOMA

ELIMINATION
OF LYMPHATIC
FILARIASIS AS A
PUBLIC HEALTH
PROBLEM IN
YEMEN BY 2019
AND IN SUDAN BY
2021



Regional target: for cutaneous leishmaniasis, detect and report at least 75% of all cases and treat at least 90% of them, by 2021; for visceral leishmaniasis, detect and report 90% of the cases and treat 100% of them by 2019; achieve zero deaths, by 2021.

Leprosy

Bacterial infection, mainly of the skin and peripheral nerves. Can lead to disfigurement and disability if left untreated.

Strategy: early detection, case management, disability prevention and management.

Global target: zero G2D (visible deformities) among children.

Regional target: zero G2D (visible deformities) among newly-detected cases by 2021; zero children among newly-detected cases by 2021.

Mycetoma

Debilitating, disabling bacterial/fungal skin infection caused by the inoculation of fungi or bacteria into the subcutaneous tissue.

Strategy: improved surveillance and treatment.

Global target: reduce morbidity through early case detection and treatment.

Regional target: capacities for diagnosis and treatment of mycetoma built in each relevant country by 2021; community sensitization implemented, and referral system for suspect cases established in each relevant country by 2021; mycetoma included in the national surveillance system of each relevant country by 2021.

Soil-transmitted helminthiases

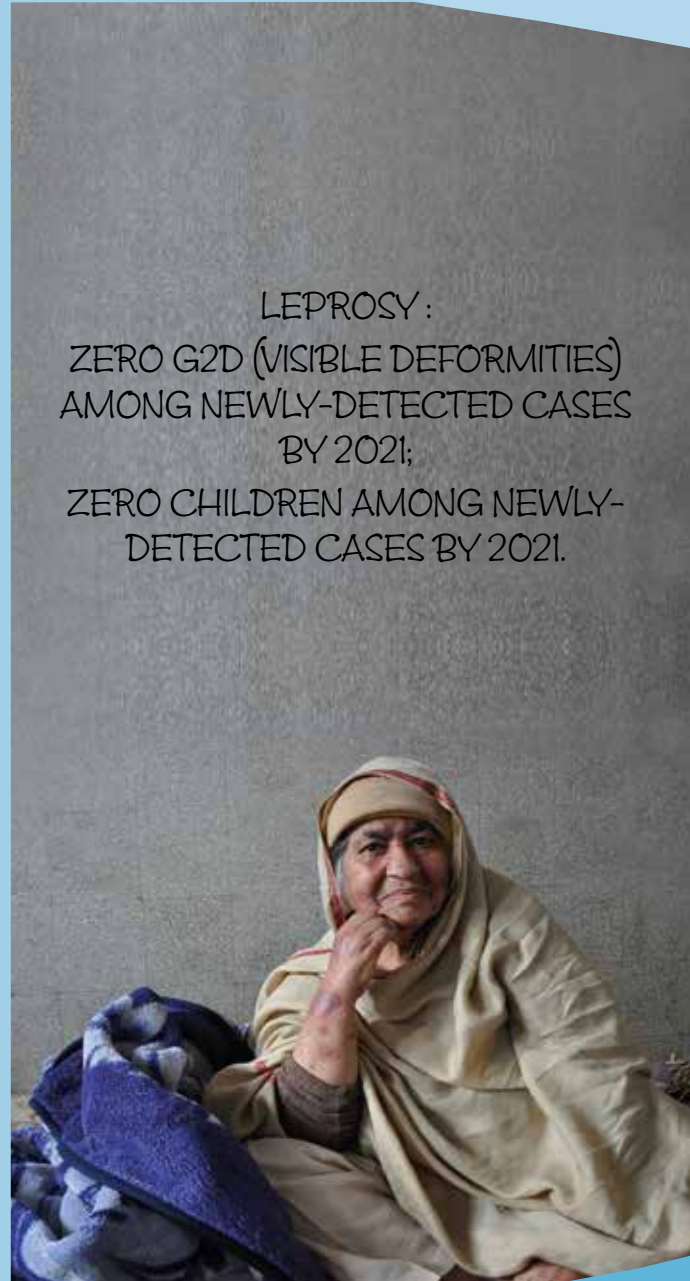
Intestinal helminth infections transmitted through soil contaminated by human faeces.

Strategy: mass treatment of children.

Global target: reach at least 75% of school-age children in endemic areas.

Regional target: reach at least 75% of school-age children in all endemic countries by 2021.

LEPROSY:
ZERO G2D (VISIBLE DEFORMITIES)
AMONG NEWLY-DETECTED CASES
BY 2021;
ZERO CHILDREN AMONG NEWLY-
DETECTED CASES BY 2021.



MONITORING FRAMEWORK

NTD expected result	NTD programmes are strengthened to achieve eradication of dracunculiasis, elimination of onchocerciasis and schistosomiasis, and elimination of lymphatic filariasis and trachoma as a public health problem, and to reduce the burden of other NTDs through improved access to preventive and curative interventions				
NTD outputs	Output	Indicator	Baseline	2019	2021
	Dracunculiasis: Sudan supported to achieve certification of interruption of transmission and disease-free status	Certification process completed	0	1	--
	Onchocerciasis: Sudan and Yemen supported to achieve elimination (interruption of transmission) by 2021	Number of countries achieving elimination of onchocerciasis (interruption of transmission)	0	0	2
	Schistosomiasis: Somalia and Sudan supported to control morbidity by 2021; Egypt and Yemen supported to achieve elimination as a public health problem by 2021; at least 4 countries supported to achieve elimination (interruption of transmission) by 2021	Number of countries achieving the set goals	0	2	8
	Lymphatic filariasis: Yemen supported to achieve elimination as a public health problem by 2019; and Sudan by 2021	Number of countries achieving elimination as a public health problem	0	1	2
	Trachoma: 12 countries supported to achieve elimination of trachoma as a public health problem by 2021	Number of countries achieving elimination as a public health problem	2	6	12
	Soil-transmitted helminthiasis: all endemic countries supported to achieve deworming coverage of at least 75% of eligible school-age children by 2021	Number of countries achieving at least 75% coverage of eligible school-age children	2	4	8
	Cutaneous leishmaniasis: all endemic countries supported to achieve detection and reporting of 75% of estimated incident cases, and treatment of 90% of all detected cases, by 2021	Number of countries achieving the set goals	5	8	18
	Visceral leishmaniasis: all endemic countries supported to achieve detection, reporting and treatment of 90% of the estimated incident cases and zero deaths, by 2021	Number of countries achieving the set goals	0	5	18
	Leprosy: all endemic countries supported to achieve zero G2D (visible deformities) among newly-detected cases and zero children among newly-detected cases by 2021	Number of countries reporting zero G2D (visible deformities) among newly-detected cases	11	14	22
		Number of countries reporting zero children among newly-detected cases	14	16	22
Mycetoma: all endemic countries supported to achieve the following goals: capacities on diagnosis and treatment of mycetoma built by 2021; community sensitization implemented, and referral system for suspect cases established by 2021; mycetoma included in the national surveillance system by 2021	Number of countries achieving the set goals	0	1	4	