NEGLECTED TROPICAL DISEASES

NTDs\textsuperscript{a} are endemic in 149 countries. More than 1 billion people are at risk of infection and 17 NTDs currently account for a disease burden that is around half the burden of TB or malaria.\textsuperscript{b} There are five key interventions to tackle NTDs: preventive chemotherapy based on large-scale delivery of free, safe, single-dose, quality-assured medicines at regular intervals; innovative and intensified disease management; vector ecology and management based on sound ecological principles and the judicious use of pesticides to reduce the transmission of diseases carried by insects; improvements in water, sanitation and hygiene in NTD-endemic areas to sustain reductions in prevalence; and veterinary interventions among animals to protect and improve human health.

ACHIEVEMENTS\textsuperscript{19,99,91,92,93}

• In 2014, there were just 126 cases reported of dracunculiasis (guinea-worm disease), compared to almost 1800 in 2010 and 3.5 million in the mid-1980s.

• In 2014, the number of new cases of human African trypanosomiasis dropped to fewer than 4500 annually for the first time in 50 years.

• In 2013, Colombia became the first country where WHO verified the elimination of onchocerciasis, followed by Ecuador in 2014 and Mexico in 2015.

• In 2014, the elimination of visceral leishmaniasis (Kala-Azar) as a public health problem has been achieved in 87% of endemic districts and subdistricts in the South-East Asia Region.

Since 2006, more than 5 billion NTD treatments have been delivered to people in need. In 2012 alone, 800 million people received preventive chemotherapy for at least one disease, the number dropping to a little more than 785 million in 2013, as a result of the successful interruption of transmission in a number of areas. Indeed, by the end of 2014, 18 countries with endemic lymphatic filariasis (elephantiasis) had achieved a reduction in infection such that preventive chemotherapy was no longer required.\textsuperscript{94} Globally, 43% of people requiring preventive chemotherapy for at least one NTD received it in 2013 (Figure 5.17).

SUCCESS FACTORS

NTD concept and approach: The concept of NTDs and the integrated approach to their prevention and control began to take shape in the early years of the MDGs. The focus on poor, rural and marginalized populations and co-implementation of key interventions across the diseases most common to those populations have boosted the investment case for NTDs.

Global leadership and country ownership: WHO established global strategies in the Global Plan to Combat Neglected Tropical Diseases, 2008–2015. The NTD Roadmap for implementation, launched in 2012, set clear targets for universal access to interventions and the eradication or elimination of 11 NTDs by 2020. Countries have taken ownership of implementation, building on existing health systems at the community level.

Partnership: The NTD Roadmap was followed by the London Declaration on NTDs,\textsuperscript{95} with a broad set of partners, including the pharmaceutical industry, pledging to provide the resources necessary for implementation. In 2012–2013 alone, 2.5 billion treatments were donated. External assistance is estimated at US$ 200–300 million per year, excluding the drug donations of the pharmaceutical industry.\textsuperscript{96} The Roadmap has given renewed impetus for collaboration between WASH and NTD actors, and in 2015 a joint strategy was developed to ensure more effective delivery of WASH alongside other NTD interventions.\textsuperscript{97} Partnerships with civil society have been critical in many countries globally.

CHALLENGES

Inequality within countries: Today 1 billion (about three-quarters) of the world’s poor live in middle-income countries. Similarly, most (about two thirds) of the people requiring, but not yet receiving interventions against NTDs, live in middle-income countries (Figure 5.18).

Funding gap: NTD programmes have been disproportionately dependent on community volunteers and development assistance, with most funding provided by just two bilateral donors. Domestic levels of investment are still inadequate, especially in middle-income countries. Additional investment of US$ 450 million per year is targeted in the period 2015–2020 for treatment and care, including preventive chemotherapy (excluding vector control).

Inadequate coverage: Coverage with early diagnosis and treatment as well as appropriate and timely implementation of preventive management, water, sanitation and hygiene, and veterinary public health interventions remain patchy. The “last mile” of preventive chemotherapy coverage is the most difficult and costly; when preventive chemotherapy stops, another challenge begins – verifying the interruption of transmission and maintaining surveillance to prevent recrudescence.

Climate change: The distribution and incidence of at least some NTDs are expected to increase with climate variability and long-term environmental changes, as well as unplanned urbanization and increased international movement of people and goods. This is especially true of the rapidly expanding burden of dengue and chikungunya. Capacity-building and mitigation measures need to be developed in the most vulnerable areas.

R&D: There is a need for more R&D across the five key interventions, and containment of the emergence of resistance to medicines as well as to pesticides. Improved diagnostics would be a priority through broad-based efforts such as the Special Programme for Research and Training in Tropical Diseases (TDR).\textsuperscript{98} Discovery of insecticides with new modes of action, development of new vector control tools – particularly to curb the spread of vectors that spread disease such as dengue and chikungunya – and insecticide resistance management are the priorities for effective vector management.

STRATEGIC PRIORITIES

SDG Target 3.3 is to “end the epidemics” of NTDs. NTDs are also closely linked to the UHC target, as a measure of success in reaching the poorest. The UHC target of 80% coverage of essential health services by 2030 is consistent with coverage targets for the prevention of NTDs by 2020 (Figure 5.16).\textsuperscript{99} If high-quality coverage is sustained for long enough – as few as three years for some NTDs requiring preventive chemotherapy – transmission may be completely interrupted. The total number of people requiring interventions against NTDs may begin to decrease as soon as 2017, as diseases are eradicated, eliminated and controlled (Figure 5.19). Scale-down for some diseases should free up resources for the management of epidemic-prone NTDs, including dengue, chikungunya and leishmaniasis.

For global advocacy purposes, the existing coverage and eradication or elimination targets for individual NTDs should be brought together under a single indicator and target for 2030: for instance, a 90% reduction in the number of people requiring interventions against NTDs. This means a 50% reduction in the number of people in need of preventive chemotherapy and in the number of new cases requiring innovative and intensified disease management. It includes, but is not limited to eradication of dracunculiasis (2015)\textsuperscript{100} and yaws (2020); global elimination\textsuperscript{101} of leprosy (2020), lymphatic filariasis (2020), trachoma (2020), onchocerciasis (2025) and human African trypanosomiasis (2020, with zero incidence in 2030); and regional elimination\textsuperscript{102} of schistosomiasis (2015–2020), rabies (2015) and visceral leishmaniasis (2020). These remain critical milestones on the path towards the end of the NTD epidemic by 2030.

*Proactive chemotherapy and innovative and intensified disease management.

\textsuperscript{a} Neglected tropical diseases


\textsuperscript{1} Proactive chemotherapy and innovative and intensified disease management.