**THE 17 NEGLECTED TROPICAL DISEASES**

**Dengue** is a mosquito-borne viral infection caused by a flavivirus that occurs in tropical and subtropical regions worldwide. There are four distinct but closely related serotypes of the virus: DEN-1, DEN-2, DEN-3 and DEN-4. This virus is transmitted mainly by female Aedes aegypti mosquitoes, and, to a lesser extent, by female *Aedes* albopictus mosquitoes. Dengue infections cause fever, rash, and, occasionally, severe complications in a potentially lethal complication called severe dengue (previously known as dengue hemorrhagic fever).

**Rubella** is a preventable viral infection spread by respiratory droplets. People who are not vaccinated at an early stage of the infection suffer severe diseases of the skin, bone, and soft tissue.

**Endemic trypomastigotes** are a group of protozoan blood parasites transmitted by the bites of female ticks. These infections affect the skin, peripheral nerves, mucosa of the upper respiratory tract and the eyes. Leptospira is rarely seen with multidrug therapy.

**Chagas disease** is a severe disease caused by infection with the protozoan *Trypanosoma cruzi*. Transmission in humans usually occurs through contact with vector insects (triatomine or “kissing” bugs), ingestion of contaminated food, transmissions of infected blood, congenital transmission, organ transplantation or laboratory accidents.

**Human African trypanosomiasis** (sleeping sickness) is a parasitic disease caused by the bites of trypanosomes that mainly affect the skin and bone.

**Leprosy** is a complex bacterial infection caused by the bacillus *Mycobacterium leprae*. The disease mainly affects the skin, peripheral nerves, mucosa of the upper respiratory tract and the eyes. Leprosy is rarely seen with multidrug therapy.

**Visceral leishmaniasis (also known as kala-azar)** attacks the internal organs and is the most severe form.

**Dracunculiasis** is a disease caused by the larvae of the guinea worm (Dracunculus medinensis). Transmission occurs exclusively by drinking water contaminated with infected snails. The infection is commonly acquired during childhood but usually manifests during adulthood as abnormal enlargement of the limbs and the genitalia.

**Onchocerciasis** (river blindness) is caused by infection with a filarial nematode (*Onchocerca volvulus*). Transmission in humans occurs from the bites of infected blackflies that breed in fast-flowing rivers and streams, mostly in remote rural villages located near fertile land where people rely on agriculture. The adult worms produce microfilariae, which migrate to the skin, eyes and other organs. Symptoms include severe itching and eye lesions that can lead to visual impairment and permanent blindness.

**Schistosomiasis** is a disease caused by infection with several species of blood flukes (*Schistosoma*) that cause soil-transmitted helminthiases.

**Control** is the reduction of disease incidence, prevalence, morbidity or mortality, or a combination of these, as a result of deliberate efforts. The term “control” is a public-health problem” should be used only to represent a measurement of attainment of targets for control set by Member States in relation to a specific disease. Continued improvement of impact on health may be required to maintain this reduction.

**Eradication** (abolishment of transmission) is the reduction to zero of the incidence of infection caused by a specific pathogen in a defined geographical area as a result of deliberate efforts; continued actions to prevent re-establishment of transmission may be required. Eradication is the permanent reduction to zero of the worldwide incidence of a specific disease caused by infection with a specified pathogen as a result of deliberate efforts.

**Elimination** requires independent assessment; continued actions to prevent re-establishment of transmission may be required. Elimination is the reduction to zero of the incidence of infection caused by a specific pathogen in a defined geographical area as a result of deliberate efforts; continued actions to prevent re-establishment of transmission may be required. Elimination is the permanent reduction to zero of the worldwide incidence of a specific disease caused by infection with a specified pathogen as a result of deliberate efforts.

**Sustaining the drive to overcome the global impact of neglected tropical diseases**

Second WHO report on neglected tropical diseases

**PRACTICAL DEFINITIONS OF ERADICATION, ELIMINATION AND CONTROL FOR NEGLECTED TROPICAL DISEASES**

The WHO roadmap set 2015 and 2020 as targets for the control, elimination and eradication of 17 neglected tropical diseases. The following definitions were recommended for use in relation to the roadmap’s targets.

- **Eradication**: A specific pathogen in a defined geographical area as a result of deliberate efforts; continued actions to prevent re-establishment of transmission may be required.
- **Elimination**: The reduction to zero of the incidence of infection caused by a specific pathogen in a defined geographical area as a result of deliberate efforts; continued actions to prevent re-establishment of transmission may be required.
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**SUSTAINING THE DRIVE TO OVERCOME THE GLOBAL IMPACT OF NEGLECTED TROPICAL DISEASES**

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SUSTAINABLE PROGRESS

Since 2010, more than 7 530 million people worldwide have benefited from At least 40 countries have conducted national reporting of neglected tropical diseases. The WHO’s first report, published in 2010, identified seven priority neglected tropical diseases, and expanded that of universal health coverage to include these diseases.5 Since 2010, 10 countries and territories have eradicated dracunculiasis (guinea-worm disease) and yaws, and three countries have eradicated leprosy.

OPPORTUNITIES AND CHALLENGES

In summary, the second WHO report analyses the challenges faced by the neglected tropical diseases control programmes. It builds on the roadmap, identifies associated challenges, and recommends ways to enhance the impact of efforts to overcome neglected tropical diseases and manage the emerging health threats. It emphasizes the need for national and international cooperation, and for the global effort against neglected tropical diseases to continue to increase. The report calls for additional resources and investments to achieve the Sustainable Development Goals and the targets set by the World Health Assembly.

Another disease targeted by WHO for eradication in 2012 is yaws. A new treatment strategy called “treatment and then follow-up treatment” has been implemented in the past few years as a result of the increased availability of oral azithromycin, which is as effective as intramuscular treatment. The number of reported cases continued to decrease, with a total of 5422 cases in 2012 compared with 10 025 confirmed cases in 2011. Heightened community-based surveillance, combined with national integrated disease surveillance programmes such as for poliomyelitis, are expected to improve case detection and further reduce transmission. Early diagnosis and treatment of cases, prompt case management of severe forms of infections; to available tools, medicines and technologies at sustainable costs. Universal coverage of prevention and control interventions depends critically on strong and sustainable health systems, essential services and community engagement.

DELIVERING INTERVENTIONS: OBSTACLES AND RISKS

In order to measure progress towards the roadmap’s targets, the second WHO report identifies the challenges faced by the neglected tropical diseases control programmes. It builds on the roadmap, identifies associated challenges, and recommends ways to enhance the impact of efforts to overcome neglected tropical diseases and manage the emerging health threats. It emphasizes the need for national and international cooperation, and for the global effort against neglected tropical diseases to continue to increase. The report calls for additional resources and investments to achieve the Sustainable Development Goals and the targets set by the World Health Assembly.