World Neglected Tropical Diseases Day-2021

February 2, 2022

In news : World Neglected Tropical Diseases Day was observed on January 30 to raise awareness for neglected tropical diseases. This year's theme was '***Achieving health equity to end the neglect of poverty-related diseases***'.

A brief note on World Neglected Tropical Diseases Day

- World NTD Day is an awareness day for addressing neglected tropical diseases (NTDs).
- The first World NTD Day was on January 30, 2020.
- January 30 is the anniversary of the landmark 2012 London Declaration on NTDs, which unified partners across sectors, countries and disease communities to push for greater investment and action on NTDs.
- 2021 is a decisive year as the World Health Organization launched its **NTD Road Map 2021-2030,** which sets global targets and milestones to prevent, control, eliminate or eradicate these diseases.
- It aims to reduce the number of people requiring treatment by 90 per cent by 2030.

What are Neglected Tropical Diseases?

- NTDs are a diverse group of communicable diseases that are common in tropical and subtropical conditions in 149 countries.
- NTDs such as dengue, lymphatic filariasis, trachoma, and leishmaniasis, are called "neglected," because they generally afflict the world's poor and historically have not received as much attention as other diseases.
- NTDs are found in several countries in Africa, Asia, and Latin America and are especially common in tropical areas where people do not have access to clean water or

safe ways to dispose of human waste.

- They represent a group of more than a dozen major chronic infectious diseases, most of them parasitic infections.
- They are **caused by a range of pathogens, including viruses, bacteria, protozoa, and helminths, with high endemicity in the developing countries of Africa, Asia, and the Americas.**
- Many NTDs are chronic, slowly developing conditions that become progressively worse if undetected and untreated and the damage they cause can be irreversible.
- In 2012, the WHO and member states agreed on the first global road map aimed at eliminating or eradicating 17 NTDs.
- Three more diseases: dengue, rabies and snakebite envenoming have since been defined as NTDS
- So far, 42 countries have eliminated at least one NTD.
- The WHO released its second 10-year-plan on January 28, 2022 with the **aim of eliminating at least one of the 20 recognized NTDs in at least 90 countries by 2030.**

Brief description of neglected tropical diseases

- **Buruli ulcer** is caused by a bacterium (Mycobacterium ulcerans) and is clinically characterized by big ulcers that lead to disfiguration and sometimes loss of limbs. There are indications that infection is based on direct contact to the environment, without vectors or animal reservoirs playing a role. Treatment is expensive and involves surgery and hospitalization.
- **Chagas disease** is caused by a protozoon (Trypanosoma cruzi). It is transmitted by various species of “kissing bugs” (Triatominae) that live either in houses or in forests, or via blood transfusion. Domestic and wild animals play important roles as animal reservoirs. The symptoms develop gradually, mainly affecting the heart and the intestines. The main control measure is vector

control. The disease is confined to Latin America.

- **Cholera** is caused by different types of Vibrio bacteria. Water and food contaminated with human faeces are the main sources of infection. Cholera cases are characterized by profuse diarrhoea, and rehydration is the main treatment. Cholera is present worldwide though rarely in parts where the sanitary infrastructure is of adequate standard.
- **Dengue fever** is caused by an arbovirus and transmitted by mosquitoes (Aedes aegypti). The symptoms are fever, headache, musculoskeletal pain and rash. If the patients are reinfected with another serotype there is a risk of dengue haemorrhagic fever. Within recent decades the disease has spread from Asia to tropical areas in all parts of the world.
- **Dracunculiasis (guinea-worm disease)** is caused by a worm (Dracunculus medinensis), the larvae of which enter the human body through drinking water containing the tiny crustaceans that carry the larvae. Adult female worms erupt from the skin to shed eggs. Filtering water and surgical removal of adult worms are important control measures. Though much progress has been made, there is still a handful of endemic countries in Africa.
- **Human African trypanosomiasis** (sleeping sickness) is caused by various Trypanosoma spp. The disease is transmitted by tsetse flies (Glossina spp.), and various types of animals (pigs, cattle and antelopes) serve as reservoirs. The central nervous system is affected and treatment with drugs is difficult and expensive. Control is largely aimed at vectors.
- **Leishmaniasis** is caused by various protozoa (Leishmania spp.) transmitted by female sandflies (Phlebotomus and Lutzomyia spp.). Symptoms range from cutaneous or mucocutaneous cases to lethal visceral cases (in India known as kala-azar) and treatment is difficult. Apart from South Asia, animal reservoirs include rodents and canines. Leishmaniasis is widespread in tropical and

subtropical areas.

- **Leprosy** is caused by a bacterium (Mycobacterium leprae) that affects the skin and nerves. The disease develops slowly and can lead to severe dysfunction and disfiguration. The main route of infection is from person to person, though that has been disputed recently. No vectors are involved. Multidrug treatment has led to a rapid decline in prevalence. Lymphatic filariasis is caused by worms (Wuchereria bancrofti, Brugia spp.) Mosquitoes serve as vectors. Adult worms can block the lymph vessels resulting in chronic symptoms such as swelling of the leg (elephantiasis), scrotum (hydrocele) or other body parts, but acute stages may also cause serious illness. Treatment is through drugs or surgery. The disease is widespread in Asia, Africa and Latin America
- **Onchocerciasis (river blindness)** is caused by a worm (Onchocerca volvulus). It is transmitted by blackflies (Simulium spp.), which breed close to running streams. Patients can develop blindness and severe skin symptoms. The disease occurs mainly in Africa (where transnational campaigns of mass drug administration and vector control have achieved significant results), and also in Latin America.
- **Schistosomiasis** is caused by various types of Schistosoma worms, and eggs are spread via urine or faeces. Snail species serve as intermediate hosts for the larvae, which penetrate human skin in contact with infected water. Control measures include inexpensive drugs, sanitation, snail control and avoidance of contact with infested water. The disease is found in tropical and subtropical areas of Asia, Africa and Latin America.
- **Soil-transmitted helminths** mainly comprise four types of worms: Ascaris lumbricoides, Trichuris trichiura and the hookworms Ancylostoma duodenale and Necator americanus. The adult worms live in the intestines and the eggs are

shed in the faeces. Cheap and effective drugs are often distributed in mass drug administration campaigns. Soil-transmitted helminths are found worldwide where there is poor sanitation.

- **Trachoma** is caused by an intracellular, bacterium-like organism (Chlamydia trachomatis). It infects the eyes and is the leading cause of preventable blindness. It is closely linked to low hygiene, presence of domestic animals and flies. Trachoma is found in Africa, Asia, Latin America and the Middle East. Control measures include the SAFE strategy