



## NEGLECTED TROPICAL DISEASES (NTDS) AFFECT MORE THAN ONE BILLION PEOPLE AROUND THE WORLD AND COST DEVELOPING ECONOMIES BILLIONS OF DOLLARS EVERY YEAR.

The five most prevalent diseases — lymphatic filariasis (LF), onchocerciasis (ONC), schistosomiasis (SCH), soil-transmitted helminths (STH), and trachoma (TRA) — can be easily managed by preventative chemotherapy (PC) treatments through mass drug administration in affected communities. The other diseases listed here — Chagas (CHA), human African trypanosomiasis (HAT), also known as sleeping sickness, leprosy (LEP), and visceral leishmaniasis (VL) — are addressed through innovative and intensified disease management (IDM) (CHA, HAT, and VL) or multi-drug therapy (MDT) (LEP). A consortium of generous pharmaceutical companies donates more than \$4 billion of medicines each year to help reach global control and elimination goals for these diseases.

It is estimated that meeting the World Health Organization (WHO)'s 2020 goals for NTDS could save upwards of \$596 billion international dollars and avert more than 572 million years of life lost to poor health, disability, or early death worldwide.

### DID YOU KNOW?

- 1987:** Albendazole - a GlaxoSmithKline (GSK) drug - is approved for human use.
- 1987:** Merck CEO Roy Vagelos announces the company's commitment to donate Mectizan to treat river blindness for as long as needed. The Mectizan Donation Program (MDP) and the Mectizan Expert Committee were formed. A secretariat is established at the Task Force for Global Health to provide medical, technical, and administrative oversight.
- 1998:** Pfizer's global donation of Zithromax begins and the International Trachoma Initiative is established by Pfizer and the Edna McConnell Clark Foundation to aid in the elimination of blinding trachoma.
- 1998:** Merck expands the MDP to include Mectizan for the elimination of LF in African countries and Yemen where LF overlaps with river blindness.
- 1998:** GSK joins the LF elimination efforts and donates albendazole for LF through the MDP.
- 2000:** Novartis partners with the WHO to donate MDT for leprosy (commitment was renewed in 2012 and drug donation program will continue through 2020).
- 2001:** Sanofi partners with the WHO with a \$5 million a year contribution including financial support and medicine donations (the partnership originally focused on sleeping sickness, but was extended to include leishmaniasis, Buruli ulcer, yaws, and Chagas disease).
- 2003:** The not-for-profit research and development organization, Drugs for Neglected Diseases initiative (DNDi), is established to deliver new treatments for neglected diseases.
- 2004:** Bayer HealthCare partners with the WHO in the fight against Chagas disease through the provision of drugs and financial assistance for logistics and distribution (the agreement was renewed in 2011 and the drug donation was doubled to 1 million tablets a year).
- 2006:** Children Without Worms launches supported by Johnson & Johnson and the Task Force for Global Health.
- 2007:** Johnson & Johnson begins donation of mebendazole for deworming. Bangladesh, Cameroon, Uganda, and Zambia are the first countries to receive drugs.
- 2007:** Merck Serono (now Merck KGaA) launches the Merck Praziquantel Donation Program.
- 2009:** AbbVie (then the pharmaceutical division of Abbott) creates an Executive Council for Neglected Diseases to coordinate company-wide efforts to contribute innovative technologies, drug compounds, and scientific expertise to non-profit organizations, academic research institutions, and multilateral agencies.
- 2010:** Eisai signs a statement of intent with the WHO to donate 2.2 billion 100mg tablets of diethylcarbamazine citrate (DEC) for the treatment of LF (the donation program commenced in 2012).
- 2011:** Gilead signs a partnership agreement with the WHO to donate 445,000 vials of AmBisome over five years for the treatment of VL in resource-limited countries.
- 2012:** Members of the public and private sector, including many pharmaceutical companies, convene to sign the London Declaration on NTDs, which pledges to support the achievement of the WHO 2020 goals in respect to 10 NTDs.
- 2012/13:** Eisai, Sanofi, and Bill & Melinda Gates Foundation donate 120 million tablets of DEC to the WHO LF elimination program - providing treatment to 30 million people.
- 2014:** The Global Schistosomiasis Alliance is launched with the support of Merck KGaA.

\* Reflects countries with populations over 100,000 infected with a non-PCT NTD (CHA, HAT, LEP, VL). Countries with populations less than 100,000 infected with a non-PCT NTD were removed: Iran, Kazakhstan, Lebanon, Libya, Morocco, Saudi Arabia, Sri Lanka, Thailand, Tunisia, and Turkey.

\*\* Disability-adjusted life year (DALY) is a measure of overall disease burden, expressed as the number of years lost due to ill-health, disability, or early death.

<sup>1</sup> Data for the following countries is not available in the Erasmus study: Andorra, Bahamas, Bahrain, Barbados, Cabo Verde, Comoros, Dominica, Grenada, Kosovo, Liechtenstein, Maldives, Malta, Mauritius, Micronesia (Federated States of), Monaco, Palau, Saint Kitts and Nevis, Saint Vincent and the Grenadines, Samoa, San Marino, São Tomé and Príncipe, Seychelles, and Singapore.

<sup>2</sup> The Erasmus study listed the following countries as having zero NTDs present: Belarus, Belgium, Canada, Czech Republic, Denmark, Estonia, Finland, Germany, Iceland, Ireland, Japan, Kuwait, Latvia, Lithuania, Netherlands, New Zealand, Norway, Poland, Republic of Moldova, Romania, Serbia, Slovakia, Sweden, Ukraine, United Kingdom of Great Britain, and United States of America.

<sup>3</sup> Sudan and South Sudan are combined in this table due to the fact that Erasmus' calculations are based on the GBD-2010 estimates for the years 1990 and 2010 - when both countries were still one country.

<sup>4</sup> Economic data for the following countries is not available from the Global Disease Burden (GBD) study as reported by Erasmus: Albania, Australia, Austria, Bosnia and Herzegovina, Brunei Darussalam, Bulgaria, Croatia, Cyprus, France, Greece, Hungary, Israel, Italy, Kiribati, Macedonia, Marshall Islands, Nauru, Portugal, Russian Federation, Saint Lucia, Slovenia, Spain, Switzerland, Tonga, Tuvalu, and Uruguay.

<sup>5</sup> Population affected data for the following countries is not available from the WHO Global Health Observatory and/or PCT data bank: Georgia, Jordan, Mongolia, Oman, Palestine, Qatar, Republic of Korea, Syrian Arab Republic, Turkmenistan, and United Arab Emirates.