NTDs Around the World

NTDs, or neglected tropical diseases, affect over 1.4 billion individuals worldwide, yet have historically received little attention. Funding for prevention, diagnosis and treatment falls far short of need. Closely linked to poverty, these diseases are often disabling or fatal if left untreated.

Disease Burden

- **Chagas**, a parasitic disease spread through bloodsucking insects (kissing bugs), is the leading cause of heart disease in Central and South America and affects 10 million people worldwide.
- **Dengue**, often called breakbone fever for its severe and painful symptoms, infects up to 100 million people each year and over 40% of the world’s population lives in areas at risk for the disease.
- **Leishmaniasis**, a parasitic disease that can cause disfiguring skin sores and internal organ damage, infects up to 2 million people each year.
- **Onchocerciasis**, a disease that has left over 750,000 individuals blind or visually impaired, was so widespread in Africa that whole communities had to flee their fertile river valley homes.
- **Schistosomiasis**, a disease that has been infecting people for so long its mentioned in the Bible, is one of the most deadly NTDs, killing over 280,000 people every year.

*For more information and a full list of NTDs, please visit [www.researchamerica.org/gh_ntds](http://www.researchamerica.org/gh_ntds)*

Nearly 1 in 6 people around the world will experience one or more NTDs in their lifetime.

Economic Impact

- **Hookworm** infects over 576 million people and is the leading cause of anemia and protein malnutrition worldwide, causing an estimated 43% reduction in future wage earnings. Source: The Global Network.

- **Trachoma**, the world’s leading cause of preventable blindness, results in an estimated $2.9 billion in lost productivity each year. Source: The Global Network.

There are 10,000 new cases of **African sleeping sickness** each year, resulting in an estimated $1.5 billion in lost agricultural income annually. Source: Uniting to Combat NTDs

Every $1 invested in surveillance and prevention for **dengue fever** has the potential to save $5 in illness costs. Source: American Journal of Tropical Medicine and Hygiene

SUCCESS STORY: Guinea Worm Disease

The Centers for Disease Control and Prevention (CDC) initiated the global campaign to eradicate guinea worm disease (GWD) in 1980 and began tracking the disease.

In 1986, there were **3.5 million cases** per year and an additional **120 million people** in Africa were at risk for GWD.

In 1986, Atlanta, Georgia-based Carter Center took the lead on the global Guinea Worm Eradication Program, working closely with the CDC, international agencies and Ministries of Health to implement treatment and prevention programs in afflicted countries.

Today, the prevalence of GWD has been reduced by 99% - down to **1,058** cases in four African countries in 2011. GWD is on track to be eradicated within this decade.
## Key US Players in NTD Research

**A critical part of the global fight against NTDs**

### US Government
- The CDC works with affected countries to establish guidelines and implement NTD surveillance and control programs. [Source: CDC](#)
- The Department of Defense has research laboratories around the world where researchers work to develop new diagnostics, vaccines and drugs to combat NTDs. [Source: WRAIR](#)
- National Institutes of Health is the world's largest public funder of NTD research. In addition to research at NIH laboratories, NIH funds projects by U.S. companies and universities, and supports eight Tropical Medicine Research Centers in regions severely impacted by NTDs. [Source: NIH](#)
- U.S. Agency for International Development’s NTD Program is committed to supporting global NTD control programs and contributing to the elimination of onchocerciasis, lymphatic filariasis, blinding trachoma and leprosy. [Source: USAID](#)

### Academia
- Faculty at the Tulane School of Public Health and Tropical Medicine are researching tropical diseases like Chagas, leishmaniasis, West Nile and dengue. [Source: Tulane University](#)
- Researchers at the Johns Hopkins School of Public Health have played a key role in conducting clinical trials for trachoma treatments in Africa. [Source: Johns Hopkins](#)
- Ohio University is collaborating with the Catholic University of Ecuador to research Chagas disease and establish a "Regional Training Center for Tropical Disease Research" in Quito in 2013. [Source: NIH Project Reporter](#)
- Researchers at the Center for Tropical and Emerging Global Diseases at the University of Georgia are developing new drugs for schistosomiasis and implementing control programs in Africa. [Source: University of Georgia](#)

### Private Sector
- Pfizer has partnered with WHO and the International Trachoma Initiative and is donating the antibiotics necessary to eliminate blinding trachoma by 2020. [Source: Pfizer](#)
- Colorado-based Inviragen has developed a dengue vaccine that is currently in Phase 2 clinical trials. [Source: Inviragen](#)
- Novartis works with WHO to provide free multidrug therapy to leprosy patients in the global effort to eliminate leprosy. [Source: Novartis](#)
- Since 2001, Sanofi has partnered with WHO to provide free treatments for sleeping sickness, leishmaniasis, Chagas and Buruli ulcer. [Source: Sanofi](#)
- Bayer is working with WHO to organize clinical trials for new drug candidates for African sleeping sickness. [Source: Bayer](#)

### Non-Profits & Faith-Based Organizations
- The Global Network, a Sabin Vaccine Institute program, has launched the "End 7 Campaign," aimed at eliminating seven of the most common NTDs by 2020. [Source: The Global Network](#)
- Funded by a grant from US-based FHI 360, Catholic Relief Services in Ghana has developed an Integrated Control of Neglected Tropical Disease Project to reduce the prevalence of 7 NTDs in Ghana. [Source: Catholic Relief Services](#)
- IMA World Health, a U.S. faith-based organization, is currently working to prevent and treat NTDs in the Democratic Republic of Congo, Tanzania, India and Haiti. [Source: IMA World Health](#)
- DNDi partners with Abbott Pharmaceuticals to research new treatments for Chagas, helminth infections, leishmaniasis, and sleeping sickness, to be made available at the lowest sustainable price possible. [Source: DNDi](#)

### The Way Forward

NTDs are both infectious and chronic, compromising quality of life and stifling economic productivity. We need:

- **Greater awareness** of the global health and economic burden of NTDs.
- **Improved surveillance** and documentation of the magnitude of NTDs.
- **Increased investment** in research to develop new diagnostics, vaccines and drugs to combat these diseases and expanded and enhanced delivery.
- **Increased coordination** including fully integrated delivery of tools to combat NTDs.