



SPECIAL EVENT ON PHILANTHROPY AND THE GLOBAL PUBLIC HEALTH AGENDA

*23 February 2009, United Nations, New York
Conference Room 3,
3:00 p.m. – 6:00 p.m.*

ISSUES NOTE

Raising the Profile of Neglected Tropical Diseases



United Nations Office for Partnerships



Background

Neglected tropical diseases (NTDs) are a group of thirteen major parasitic and bacterial infections that affect over one billion people and kill 500,000 people annually, most of whom live on less than \$2 per day. NTDs stigmatize, disable and inhibit individuals from being able to care for themselves or their families. As such, they are diseases of poverty that transcend sectoral and geographical boundaries and promote economic and social inequities.

These diseases occur primarily in rural areas and in some poor urban settings of low-income countries in sub-Saharan Africa, Asia, and Latin America. Children, women and those living in remote areas or urban slums with limited access to effective health care are most vulnerable to the consequences of NTDs, such as malnutrition, anemia, serious or permanent disability (including blindness), illness, and death. Often, individuals are infected with multiple NTDs simultaneously especially in sub-Saharan Africa.

The impact of NTDs is better understood in terms of their disease burden, which is generally expressed in disability-adjusted life years (DALYs). DALYs refer to the years of healthy life lost, as a result of either disability or premature death. When measured in DALYs, the NTD burden is greater than that of TB or malaria, and approaches that of HIV/AIDS. By this metric, NTDs are also the fourth most devastating group of communicable diseases, behind lower respiratory infections, HIV/AIDS and diarrheal diseases.

Fortunately, there are inexpensive, safe and effective treatments available for the control or elimination of the seven most common NTDs: ascariasis, hookworm infections, trichuriasis, lymphatic filariasis (LF), onchocerciasis, schistosomiasis, and trachoma. However, much of the “neglected” character of NTDs has been due to the lack of awareness and understanding of their profound and insidious impacts on global health.

Around half of the world's population is at risk of NTD infections. The global burden of NTDs is equivalent to at least half of the combined global burden of HIV/AIDS, TB and malaria. Research indicates that the control of NTDs could greatly reduce malaria morbidity and mortality, as well as prevent HIV/AIDS transmission. NTDs are controllable and possibly eradicable by safe and effective drugs already in existence.

NTDs and the Millennium Development Goals (MDGs)

While NTDs are diseases of poverty and, theoretically, would be subsumed with MDG 6 on infectious diseases, this has yet to result in sufficient action to combat them. Yet, NTDs debilitate, deform, blind, and kill. While it is easy to understand the significance of the deaths caused by NTDs, it is difficult to comprehend the chronic disability and illness they cause, along with their contribution to poverty. NTDs impair physical and cognitive development, cause adverse pregnancy outcomes, and limit adult productivity in the workforce.

As a result, they cause billions of dollars in lost wages, all but ensuring that those at risk of infection remain trapped in a cycle of poverty and disease. Those most affected are the poorest, often living in remote rural areas or urban slums. The diseases flourish best under conditions linked to poverty – environments with poor sanitation, dirty water, substandard housing, and reservoirs for insects and other disease vectors. Children are disproportionately affected and can suffer long-term consequences. Early treatment can effectively prevent the

irreversible sequelae of adulthood with immediate improvement in health and human development.

At the halfway point in the path to reach the MDGs, control of NTDs will have a direct impact on alleviating poverty for large populations and could strengthen some components of health systems in the poorest countries. Children who receive treatment for soil-transmitted helminths are able to grow and learn to their fullest potential, free of parasites that rob them of nutrients and slow their mental development. Men and women treated for onchocerciasis no longer suffer excruciatingly itchy and painful lesions that keep them at home and can eventually lead to lifelong blindness. Each treatment provided for trachoma brings us closer to eliminating the world's leading cause of preventable blindness. Preventive treatment of lymphatic filariasis (elephantiasis) ensures that men and women are not at risk from grotesque and disabling swelling of their limbs and genitals.

In economic, social and educational terms, NTD control can enormously benefit the work force and economic productivity of communities. For example, treating hookworm in children could result in a 40 per cent increase in future wage earnings. In Kenya, deworming could raise per-capita earning by 30 per cent. Controlling lymphatic filariasis in India would add \$1.5 billion to the country's annual GNP. Successful deworming programmes in Japan during the 1950s are partly responsible for the country's subsequent economic boom. In addition, reducing the burden of NTDs lessens the severe social stigmatization that they cause.

Overall, people who are freed from stigma are less likely to delay seeking medical care, preventing increased suffering and helping to break the cycle of poverty. Treating the 400 million NTD-infected children throughout the developing world is one of the most important strategies for ensuring universal access to education. Deworming is the single most cost-effective means of improving school attendance. Controlling intestinal worms will help to avoid 16 million cases of mental retardation and 200 million years of lost primary schooling among children in developing countries.

Current United Nations system response and recommendations for future programmes

The World Health Organization (WHO) has begun to address each of these diseases, although each with different levels of funding, publicity and success. A landmark WHO and key partners meeting in 2007 brought added attention to the NTDs. In the last two years, WHO and its partners developed a new strategy for combating NTDs, using a three-pronged, multi-disease approach that incorporates rapid treatment, care and prevention programmes.

In the last decade, there has been regional and global progress on several of the NTDs and best-practices sharing has been initiated. These successes demonstrate that interventions against NTDs are technically feasible, immediate, visibly powerful and highly cost effective and should be expanded. For example, those affected by most of these conditions would benefit from joining a purchasing consortium for treatment, allowing for mass production of the drugs and, therefore, lower costs. WHO proposes closing this critical gap by establishing a structure for procuring non-donated essential medicines and better synchronize existing donated drug partnerships to expand the fight against NTDs.

In June 2008, the United Nations Secretary-General, Mr. Ban Ki-moon, passed a decision on global health that included the priority to "mobilize action and increased funding to treat and control neglected tropical diseases, including by boosting drug procurement and scaling up

programmes for integrated service delivery at the community level”. This message will be reinforced during the United Nations Economic and Social Council (ECOSOC) Ministerial meeting in July 2009. ECOSOC can contribute through the following channels and actions: (1) supporting and strengthening existing initiatives to bolster and buttress the on-going work in this area; (2) special advocacy campaigns through medical and public-private partnerships; and (3) clear recognition in the Ministerial declaration of the challenges of neglected diseases, including NTDs.

Questions for consideration:

- What are the specific and innovative ways the philanthropic and foundation communities can engage in the fight against NTDs, using their core competencies and expertise?
- Would these include *pro bono* services, management expertise, in-kind services, or other mechanisms to help accelerate progress in this field?
- What should be the respective roles and responsibilities of the new philanthropy, the private sector, civil society and international organizations in scaling up the response?
- What are the initiatives that have worked best on the ground?
- With public-private partnerships, it is estimated that the integrated control of NTDs can be implemented at marginal costs as low as 50 cents per person per year. Is this realistic?
- How can we promote concrete initiatives by the philanthropic community and initiate new partnerships that would accelerate progress in combating NTDs?
- Given the lack of focus on NTDs in MDG 6, what is the best mechanism for increased resource mobilization?
- How can the philanthropic community best contribute to MDG 8 in building a Global Partnership for Development that includes NTDs, particularly in cooperation with the information and communication technologies (ICT) and pharmaceutical sectors?
- With NTDs as a stated priority of the Secretary-General of the United Nations and the “H8” grouping, how can the philanthropic community work in harmony?
- How can we broaden the range of stakeholders involved in the work of ECOSOC and what can be expected of the global health agenda for ECOSOC 2009?

Further reading

“Control of neglected and tropical diseases”, Hotez, Molyneux, Fenwick, Kumaresen, Sachs and Sachs, *The New England Medical Journal*, September 2007

“Removing the N from neglected tropical diseases”, Ruxin, *The New York Times*, February 2008

“Integrated control of the neglected tropical diseases. A neglected opportunity ripe for action.” Paper jointly prepared by WHO and the Carter Centre, presented to the Global Health and the United Nations meeting, Carter Centre, Atlanta, Georgia, USA, 8-9 May 2008, http://www.who.int/neglected_diseases/NTD_integrated_control.pdf

“First year report”, *The Global Campaign for the Health Millennium Development Goals*, September, 2008

“The CNCDs and the NTDs: Blurring the lines dividing noncommunicable and communicable chronic diseases”, Hotez and Daar, PLOS, October, 2008

“World Health Report 2008 - *Primary Health Care— now more than ever*”, WHO, October 2008

Annex 1

The seven most common neglected tropical diseases

Soil Transmitted Helminth Infections

Ascariasis

- **807 million cases worldwide**
- Most common human worm infection
- Causes impaired physical growth and cognitive development
- Responsible for **60,000 deaths per year**

Trichuriasis (whipworm)

- **604 million cases worldwide**
- Causes loss of blood and nutrients which impairs physical and cognitive developments

Hookworm

- **600 million cases worldwide**
- One of the most serious parasitic maternal-child health problems
- Causes blood loss leading to iron-deficiency anemia, protein malnutrition and mental and physical disabilities

Other common NTDs

Schistosomiasis

- **200 million people infected**
- 120 million people suffering with symptoms
- 280,000 people die from schistosomiasis each year
- Second most common parasitic disease after malaria

Lymphatic filariasis

- **120 million people infected**
- 40 million people are suffering with symptoms
- One billion people are at risk in 83 countries
- Results in **\$2 billion in lost productivity**

Trachoma

- **The world’s leading cause of preventable blindness**
- Infects 84 million people, 8 million of whom have visual impairment
- Women and children are affected disproportionately

Onchocerciasis (river blindness)

- **37 million people infected**
- 110 million people in 35 countries at risk.
- 500,000 people are severely visually impaired from this disease, 270,000 of whom are blind
- Causes debilitating itching