

IFMSA Policy Proposal Neglected Tropical Diseases

Proposed by SFGH-UK and MSAI-India Adopted in IFMSA General Assembly March Meeting 2018 in Hurghada, Egypt.





Policy Statement

Introduction

Whilst progress has been made in recent years, 'Neglected Tropical Diseases' (NTDs) still affect the health and socioeconomic status of over 1 billion people across 149 countries, meaning there is considerable scope to improve the lives of millions. The International Federation of Medical Students Association (IFMSA) believes that it is imperative to recognise the threat of NTDs to the health and wellbeing of people from across the world but particularly those in poverty. The evidence base suggests that a lack of research, funding, awareness and political will are some of the reasons why NTDs persist. However, these are also key areas in which the IFMSA can advocate for change.

IFMSA Position

The IFMSA affirms that:

- 1. No disease, tropical or otherwise, should be 'neglected' purely on the basis that it affects those without a strong political voice or economic power.
- 2. In order to achieve Sustainable Development Goal 3 (SDG3), controllable and prevalent NTDs must be controlled, eradicated or eliminated.
- 3. More research needs to be carried out on NTDs, more funds need to be invested to prevent and treat NTDs, and more awareness needs to be raised amongst governments and general populations.

Calls to Action

The IFMSA calls upon:

- 1. The United Nations (UN) and National Governments to:
 - a. Acknowledge and make attempts to carry out the proposals made in the WHO's NTDs Roadmap by making financial and political commitments.
 - b. Encourage pharmaceutical companies to endorse the commitments made in the London Declaration on NTDs (2012).
 - c. Invest into the latest prevention, treatment and research into NTDs including the scaling up of successful programmes in endemic countries to ensure all those at risk are reached.
 - d. Continue in the fight against poverty and, in particular, invest in infrastructure for adequate sanitation in endemic countries
- 2. The WHO to:
- Commit to the goals proposed in the NTD Roadmap and work towards fulfilling the Sustainable Development Goal (SDG) targets for NTDs.







c/o Academic Medical Center - Meibergdreef 15 1105AZ, Amsterdam, The Netherlands



- b. To create and commit to new goals beyond 2020.
- Research and prepare recommendations for how donor-supported initiatives can C. transition smoothly to national platforms for Universal Health Coverage.
- 3. Medical Schools to:
- Ensure that NTDs are included as part of the core curriculum of teaching. a.
- b. Invest more funds into research projects on NTDs.
- Endorse and provide more opportunities for students to research NTDs. C.
- 4. National Member Organisations (NMOs) and students to:
- Raise awareness and educate about NTDs by running training sessions at national a. events and talks at local branches.
- Advocate and campaign for more opportunities to research NTDs. b.
- Campaign and create petitions to lobby pharmaceutical companies to invest more into the research of NTDs and donate medication in general and for mass drug administration.
- Campaign and create petitions to pressure national governments to acknowledge NTDs as a serious political issue which requires investment towards disease prevention, treatment and research.
- Consider the partnership with other organisations to make statements such as the International Federation of Pharmacy Students (IPSF) and International Veterinary Students Association (IVSA).











Position Paper

Background

Health and wealth have had disturbing historical links. This relationship is particularly discernible with 'Neglected Tropical Diseases' or 'NTDs'. The World Health Organisation (WHO) defines NTDs as 'a diverse group of communicable diseases that prevail in tropical and subtropical conditions'. (1) NTDs affect a staggering 1 billion of the world's poorest people across 149 countries; (2) otherwise known as the 'bottom billion'. (3)

Coined in 2000, the term 'neglected' pertains to these diseases because they 'persist only in the poorest, most marginalized communities and conflict areas' (2) despite being largely eradicated in higher income countries. With over 20 different diseases listed by WHO, examples include Chagas disease, dengue and chikungunya, leishmaniasis, leprosy (Hansen's disease), lymphatic filariasis, rabies, scabies, and schistosomiasis, with more diseases added to the portfolio every year. (1)

The most severely affected are populations blighted by 'poverty, inadequate sanitation, and that are in close contact with infectious vectors including domestic animals and livestock'. (1) WHO believes that this is due to a lack of awareness, unreliable statistics, and these unprofitable diseases being low on public health and political agendas. (4) 'Blue marble health' affirms that it is not just low-income countries that suffer this disease burden as it is 'poor people living in wealthy countries (that) account for most of the world's poverty-related illness'. (5) NTDs are worryingly prevalent, but surprisingly controllable. This is where the International Federation of Medical Students Association (IFMSA), as a collaboration of over 1 million medical students, can make a real difference.

What works?

Progress has already been made as NTDs were previously not directly recognised by the Millennium Development Goals but are now explicitly part of the Sustainable Development Goals (SDGs). In 2012, WHO published its 'NTD Roadmap' describing how it hopes to eradicate or eliminate 17 NTDs and proposals achieve these targets by 2020. (6) This led to the 2012 London Declaration on NTDs and creation of 'Uniting to Combat NTDs', (7) illustrating how pharmaceutical companies, governments and non-government organisations (NGOs) can indeed unite against the 10 most devastating NTDs, as 7 diseases make up 90% of the disease burden. (2)

Since then, millions have been invested in NTDs. Notable donors include USAID which donated \$450million in 2010 and another \$175million in 2015, (8) the UK government which has pledged £360 million, (9) as well as the World Bank, the Bill and Melinda Gates Foundation and END FUND. (8) It is believed that as a result of these efforts, 1 billion people were treated for NTDs in 2015 alone. (10) The WHO report 'Integrating Neglected Tropical Diseases in Global Health and Development' highlights that further disease control can be achieved through 'strong political support, generous donations of medicines and improvements in living conditions'. (11)

'Mass Drug Administration' or 'MDA' is 'the treatment of the entire population in a geographical area with a curative dose (of the treatment) without first testing for infection and regardless of the presence of symptoms'. (12) MDAs can be particularly successful, with the example of 'Lymphatic Filariasis' or 'LF' being particularly striking. LF, also known as







c/o Academic Medical Center - Meibergdreef 15 1105AZ, Amsterdam, The Netherlands



'elephantiasis', is a devastating parasitic disease and is the second most disabling disease in the world after depression. (13) LF was classified as eradicable in 1997, (14) and the World Health Assembly promptly called upon member states 'to eliminate LF as a public health problem through interrupting transmission and controlling morbidity'. (15)

Drug companies GlaxoSmithKline and Merck committed to MDA i.e. 'donating drugs to cover populations determined to be at risk'. (16) Consequently, 556 million people received preventative treatment for LF worldwide (10) and elimination has been achieved in Cambodia, Cook Islands, Maldives, Niue, Sri Lanka and Vanuatu as of 2016. (17) Confirmatory mapping is also crucial to ensure that unnecessary MDA is not administered; this tool is thought to have identified 52 districts across Ethiopia and Tanzania that did not require MDA for LF and resultantly saved \$9million. (7)

This example illustrates that once LF was properly researched, identified as a political priority and had investments in the form of savvy drug donations, real progress could result. The aim of elimination of LF by 2020 now seems more achievable. MDA does not work for every NTD but is thought to be effective for LF, ascariasis, trachoma, hookworm infection, trichuriasis, schistosomiasis and onchocerciasis. The WHO NTD Roadmap emphasizes the need for other strategies such as vector and intermediate host control, veterinary public-health at the human-animal interface and provision of safe water, sanitation and hygiene. (6)

Solutions

Therefore, three key solutions to NTDs are to carry out more research, increase funding and to make NTDs more of a political priority.

Most research begins at universities and medical schools, and as students and NMOs we have the power to advocate to our institutions that more research is needed in NTDs. NTDs should be a core part of medical curriculums as universities have a duty to educate and inspire students about NTDs as well as provide opportunities to further research these areas. Pharmaceutical companies also have a role to play in carrying out more research on NTD treatments. We need reliable and up-to-date information on NTDs as well as reports on whether programmes are working, so that errors can be remedied, and successes can be celebrated. Research in endemic countries needs to be reliable and cover all ages and genders equally, so we are providing treatments that are both efficient and evidence based. Our understanding of what the best available treatment is constantly evolving, as is illustrated by the recent tripledrug therapy for LF (18) and new recommended treatment regime for Buruli ulcer. (19) Even the very definition of NTDs is changing as new diseases are added to the WHO list every year. Crucially, research must be implemented in the field as soon as possible to those who need it most, but this requires adequate funding.

The funding required for treatment, prevention and research into NTDs will not be cheap. Whilst progress has occurred in recent years, there are still many NTDs that are not political targets, do not have enough funding and/or we simply do not how to manage medically yet. The elimination of NTDs would not just decrease human suffering but economic benefit as it is believed that for 'every dollar invested in NTD control and elimination, it has an economic return of \$27-\$42'. (7) Donor countries, NGOs, pharmaceutical companies and private philanthropy have been impossibly generous in the war against NTDs however, a Universal Health Coverage system is perhaps more sustainable than altruism. Furthermore, as the WHO NTD Roadmap emphasises, 'sustained elimination is possible only with full access to safe water, water disposal and treatment, basic sanitation and improved living conditions.' (6) Investment cannot just be into medication and treatment but into the infrastructure of endemic









countries, particularly to improve sanitation. Prevention is better than cure but the social determinants of ill health including NTDs are complex and will require long-term financial and political investments into tackling poverty.

Motivation must be maintained to ensure that NTDs are a political priority across the world. The proposals made in the WHO's NTD Roadmap are grounded in evidence and even inspired the London Declaration. This inspiration must continue in the form of governments endorsing and carrying out these proposals. Endemic and donor countries need to increase domestic financial and political commitments to NTDs. Increasing awareness of NTDs is also crucial to maintaining momentum. Through campaigns and petitions NMOs can generate awareness and pressure national governments to acknowledge NTDs as a serious political issue which requires investment towards disease prevention, treatment, and research. NMOs can also educate members about NTDs through running training sessions at national events and talks at local branches. The IFMSA and NMOs should consider partnership with other organisations such as the International Federation of Pharmacy Students and International Veterinary Students Association to make joint statements for a more united stance.

Finally, many goals for NTDs are given the deadline of 2020. However, considering that is just two years away, what happens next? We need a clear agenda for beyond 2020 but this again requires research, funding and political drive.

Conclusions

Whilst NTDs continue to cause a great deal of suffering to the world's most vulnerable people, valuable lessons have been learnt about what can be done to improve the situation. Through increasing research, funding and the political importance of NTDs we can hope to overcome one of the greatest global health challenges that faces our world today. The gravity of giving NTDs the time, money and awareness they deserve cannot be stressed enough, as this is an issue that affects at least 1 in 6 of the world's population. (10) By tackling NTDs we can achieve the ultimate aim of the IFMSA, as Dr Matishdiso Moeti the WHO Regional Director for Africa, articulated 'elimination of these diseases will give rise to healthier, happier and more productive people and economies globally'. (20)

List of Abbreviations

IFMSA	International	Federation	of Medical	Students	Association

LF Lymphatic Filariasis

MDA Mass Drug Administration

NGO Non-Government Organisation **NMO National Member Organisation** NTD **Neglected Tropical Diseases** SDG

Sustainable Development Goal

WHO World Health Organisation













References

- WHO. Neglected tropical diseases [Internet]. WHO. 2018 [cited 9 January 2018]. Available from: http://www.who.int/neglected_diseases/diseases/en/
- 2. CDC. Neglected Tropical Diseases 2017 [cited 6 January 2018]. Available from: https://www.cdc.gov/globalhealth/ntd/index.html.
- 3. Hotez PJ, Fenwick A, Savioli L, Molyneux DH. Rescuing the bottom billion through control of neglected tropical diseases. Lancet (London, 2009;373(9674):1570-5.
- 4. WHO. Why are some tropical diseases called 'neglected'? 2012 [cited 6 January 2018]. Available from: http://www.who.int/features/ga/58/en/.
- 5. Hotez P. Blue Marble Health [Internet]. Johns Hopkins University Press. 2016 [cited 31 January 2018]. Available from: https://jhupbooks.press.jhu.edu/content/blue-marblehealth
- 6. Accelerating Work to Overcome the Global Impact of Neglected Tropical Diseases: A Roadmap for Implementation [Internet]. Geneva, Switzerland: WHO; 2012. Available from: http://www.who.int/neglected_diseases/NTD_RoadMap_2012_Fullversion.pdf
- 7. Uniting to Combat Neglected Tropical Diseases. Reaching a Billion. Ending Neglected Tropical Diseases: A Gateway to Universal Health Coverage. Fifth Progress Report on the London Declaration on NTDs. [Internet]. Uniting to Combat Neglected Tropical 2017. Available from: http://unitingtocombatntds.org/wp-Diseases: content/themes/tetloose/app/staticPages/fifthReport/files/fifth_progress_report.pdf
- 8. G-FINDER Reports [Internet]. G-Finder. 2017 [cited 9 January 2018]. Available from: https://gfinder.policycuresresearch.org/
- 9. UK to protect 200 million people from tropical diseases [Internet]. 2017. Available from: https://www.gov.uk/government/news/uk-to-protect-200-million-people-from-tropicaldiseases
- 10. GBD 2016 Disease and Injury Incidence and Prevalence Collaborators (2017) Global, regional, and national incidence, prevalence, and years lived with disability for 328 diseases and injuries for 195 countries, 1990-2016: a systematic analysis for the Global Burden of Disease Study 2016. Lancet 390: 1211-59
- 11. WHO. Implementing the WHO Roadmap on neglected tropical diseases partners celebrate five years of collaboration [Internet]. WHO. 2017 [cited 9 January 2018]. http://www.who.int/neglected diseases/news/WHO Roadmap five years of collabor ation/en
- 12. CDC. Use of Antimalarials to Reduce Malaria Transmission [Internet]. CDC. 2015 [cited] January 2018]. Available from: https://www.cdc.gov/malaria/malaria_worldwide/reduction/mda_mft.htm
- 13. WHO. Global Burden of Disease Update [Internet]. WHO; 2004. Available from: http://www.who.int/healthinfo/global burden disease/GBD report 2004update full.pd
- 14. WHO. Global Programme to Eliminate Lymphatic Filariasis 2018 [cited 6 January 2018]. Available from: http://www.who.int/lymphatic_filariasis/elimination-programme/en/.





c/o Academic Medical Center - Meibergdreef 15 1105AZ, Amsterdam, The Netherlands







- 15. WHA. Resolution 50.29: Elimination of lymphatic filariasis as a public health problem: WHO: 1997 [cited 6 January 2018]. Available from: http://www.who.int/neglected_diseases/mediacentre/WHA_50.29_Eng.pdf.
- 16. Gustavsen KM, Bradley MH, Wright AL. GlaxoSmithKline and Merck: private-sector collaboration for the elimination of lymphatic filariasis. Annals of tropical medicine and parasitology. 2009;103 Suppl 1:S11-5.
- 17. WHO, Control of Neglected Tropical Diseases Do. Global Programme to Eliminate Lymphatic Filariasis Progress Report, 2016. WHO; 2017. Contract No.: 91.
- 18. Irvine M, Stolk W, Smith M, Subramanian S, Singh B, Weil G et al. Effectiveness of a triple-drug regimen for global elimination of lymphatic filariasis: a modelling study. The Lancet Infectious Diseases [Internet]. 2017 [cited 9 January 2018];17(4):451-458. http://www.thelancet.com/journals/laninf/article/PIIS1473-Available from: 3099(16)30467-4/fulltext
- 19. O'Brien D, McDonald A, Callan P, Robson M, Friedman N, Hughes A et al. Successful Outcomes with Oral Fluoroguinolones Combined with Rifampicin in the Treatment of Mycobacterium ulcerans: An Observational Cohort Study. PLoS Neglected Tropical Diseases [Internet]. 2012 [cited 9 January 2018];6(1):e1473. Available from: http://journals.plos.org/plosntds/article/file?id=10.1371/journal.pntd.0001473&type=pri ntable
- 20. Moeti M. Kuwait Fund and WHO in \$4million multi-year agreement to tackle Neglected Tropical Diseases in Africa [Internet]. World Health Organization Regional Office for January [cited 9 2018]. http://www.afro.who.int/news/kuwait-fund-and-who-4million-multi-year-agreementtackle-neglected-tropical-diseases-africa









