

Epidemics of Neglect

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Abstract

The COVID-19 pandemic has exposed multiple fault lines in the performances of health services at every level – from community to national to global – in ensuring universal, equitable access to preventive and curative care. Tragically, this has been to the detriment of those who have suffered and died not only from COVID-19, but also from the myriad other ailments affecting people around the world. Of those, we wish to highlight here some key categories of diseases that have caused a greater burden of illness and deaths as a consequence of the policies and political decisions made in relation to the COVID-19 pandemic. In our view, these should be considered epidemics or, more accurately, syndemics – the clustering and interactions of two or more diseases or health conditions and socio-environmental factors – of neglect.

Keywords: epidemic; syndemic; neglected tropical disease; COVID-19

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The first category is infectious diseases that were already considered ‘neglected’ before SARS-CoV-2 appeared. The World Health Organization (WHO) recognises approximately twenty Neglected Tropical

Diseases (NTDs), so called because they disproportionately affect poor and marginalised populations in tropical regions and do not typically receive the funding and attention necessary for their prevention and control (WHO, 2021a; Hotez *et al.*, 2020). In late January 2021, WHO launched its new road map for NTDs for the period 2021–30, with ambitious goals relating to improving access to diagnosis and treatment and reducing the overall burden of NTDs, as well as precise targets such as the elimination of at least one NTD in a hundred countries (WHO, 2021b). This call for action and plan was welcomed by Médecins Sans Frontières, with our organisation having worked on NTDs within our emergency humanitarian medical missions for over fifty years, including on some of the most complex NTDs such as sleeping sickness, leishmaniasis, Chagas disease, Buruli ulcer and snakebite.

Such ambitions clearly require strong political and donor support which unfortunately has largely failed to materialise. By April 2021, the UK – hitherto one of the

leading sources of government funds to tackle NTDs – had announced it was renegeing on its commitment, reducing its funding by over 90 per cent, citing budgetary constraints due to pandemic-related economic pressures ([Uniting to Combat Neglected Tropical Diseases, 2021](#)). Industry soon followed suit. In May, a global shortage of liposomal amphotericin B (AmBisome) – the single most important medication to treat visceral leishmaniasis, an NTD that is among the top three parasitic diseases (after malaria and schistosomiasis) in terms of global morbidity and mortality ([WHO, 2021c](#)) – was declared. Its main manufacturer, Gilead, had agreed with the Indian Ministry of Health to reorient supplies to treat mucormycosis, a rare fungal infection appearing in COVID-19 patients being treated with immunosuppressive drugs such as steroids ([Singh et al., 2021](#)). That same month, Bio-Rad Laboratories, the principal manufacturer of the main rapid diagnostic test (RDT) used to diagnose visceral leishmaniasis, announced it was ceasing production of the RDT known as rk-39 in 2022. Although the latter was due to a change in industry testing standards, rather than COVID-19, these actions nevertheless represented a cruel triple whammy for the thousands of leishmaniasis patients worldwide and the medical professionals trying to diagnose and treat them ([Dahl et al., 2021](#)). Given the impact of national NTD programmes being suspended during the Ebola virus disease outbreak in West Africa in 2013–16 ([Alswang et al., 2021](#)), such negative consequences for NTD control should have been anticipated. This could have entailed, for example, stockpiling and redistribution of existing supplies and technical development support for other manufacturers. Previous experiences of reallocation of resources in the context of a new emergency leading to worsening health access, care and outcomes for existing problems – such as increases in measles incidence due to lower immunisation coverage in Liberia and Guinea during the aforementioned Ebola crisis ([Masresha et al., 2020](#)) – does not appear to have been sufficiently heeded this time. Forewarned, as it turned out, did not mean forearmed.

At the same time, alarm bells have been clanging ever louder in relation to a second category of far better-known killer diseases such as malaria. In 2020, researchers warned of possible increases in the annual deaths from malaria, with estimates ranging from 36 per cent higher mortality ([Hogan et al., 2020](#)) to almost double ([Weiss et al., 2021](#)), as health services in Africa have been partly paralysed by COVID-19 and thus unable to achieve the best-practice approaches in prevention (e.g. via vector control and distribution of insecticide-treated nets) and treatment of the disease. While the evidence is only beginning to emerge of the medium-term impact of this phenomenon, the early data suggests that those concerns were well-founded, with excess deaths from

malaria epidemics in Zimbabwe in early 2020 measured in the tens of thousands ([Gavi et al., 2021](#)).

Of course, malaria and NTDs represent only a fraction of the illnesses and deaths that have occurred during the COVID-19 pandemic. Other infectious diseases have caused millions of deaths throughout this period. The burden of drug-resistant infections – already approaching one million per year – has very likely been made worse by attempts to treat COVID-19 patients with precious antimicrobial medicines ([Rodríguez-Baño et al., 2021](#)). Countless millions more people have died during that time due to non-communicable diseases, with the role of NCDs as risk factors for severe illness and death from COVID-19 a grim reminder of the overlapping nature of disease and a stark example of what a syndemic can look like at a global scale ([Horton, 2020](#)).

As we begin to envision the possible end of COVID-19 as a pandemic and adjust to a ‘new normal’ in a world with effective vaccines, where the disease remains present but causes far fewer serious illnesses and deaths, there is an urgent need to both address the layers of this syndemic – the health problems that have been overlooked and amplified during the COVID-19 crisis – and look ahead to future threats. SARS-CoV-2 is considered to be of zoonotic origin, having arisen in a non-human vertebrate species and then spread to humans ([Mori et al., 2020](#)), like most pathogens with pandemic potential ([Johnson et al., 2015](#)). As emerging infectious diseases are closely linked to the interaction between humans, animals and the environment, and thus exacerbated by processes such as globalisation, environmental degradation and climate change ([Morens et al., 2004](#)), far greater attention and vastly more resources must now be directed to reducing the risks and impacts of pandemics yet to come.

Works Cited

- Alswang, J. M., Gutierrez, A. L., Sadler, S. J. and Norheim, O. F. (2021), ‘Maintaining Neglected Tropical Disease Programmes during Pandemics’, *Bulletin of the World Health Organization*, 99:6, 473–4, doi: [10.2471/BLT.20.269464](#).
- Dahl, E. et al. (2021), ‘Control of Visceral Leishmaniasis in East Africa: Fragile Progress, New Threats’, *BMJ Global Health*, 6, e006835, doi: [10.1136/bmjgh-2021-006835](#).
- Fronteira, I., Sidat, M., Magalhães, J. P., de Barros F. P. C., Delgado, A. P., Correia, T., Daniel-Ribeiro, C. T. and Ferrinho, T. (2021), ‘The SARS-CoV-2 Pandemic: A Syndemic Perspective’, *One Health*, 12, 100228, doi: [10.1016/j.onehlt.2021.100228](#).
- Gavi, S., Taperia, O., Mberikunashe, J. and Kanyangarara, M. (2021), ‘Malaria Incidence and Mortality in Zimbabwe during the COVID-19 Pandemic: Analysis of Routine Surveillance Data’, *Malaria Journal*, 20:233, doi: [10.1186/s12936-021-03770-7](#).
- Hogan, A. B. et al. (2020), ‘Potential Impact of the COVID-19 Pandemic on HIV, Tuberculosis, and Malaria in Low-Income and Middle-Income Countries: A Modelling Study’, *The Lancet Global Health*, 8:9, E1132–41, doi: [10.1016/S2214-109X\(20\)30288-6](#).
- Horton, R. (2020), ‘Offline: COVID-19 is Not a Pandemic’, *The Lancet*, 396:10255, 874, doi: [10.1016/S0140-6736\(20\)32000-6](#).

- Hotez, P. J., Aksoy, S., Brindley, P. J. and Kamhawi, S. (2020), 'World Neglected Tropical Diseases Day', *PLoS Neglected Tropical Diseases*, 14:1, e0007999, doi: [10.1371/journal.pntd.0007999](https://doi.org/10.1371/journal.pntd.0007999).
- Johnson, C. K. et al. (2015), 'Spillover and Pandemic Properties of Zoonotic Viruses with High Host Plasticity', *Scientific Reports*, 5, 14830, doi: [10.1038/srep14830](https://doi.org/10.1038/srep14830).
- Masresha, B. G., Luce, R. Jr, Weldegebriel, G., Katsande, R., Gasasira, A. and Mihigo, R. (2020), 'The Impact of a Prolonged Ebola Outbreak on Measles Elimination Activities in Guinea, Liberia and Sierra Leone, 2014–2015', *Pan African Medical Journal*, 35:Suppl 1, 8, doi: [10.11604/pamj.suppl.2020.35.1.19059](https://doi.org/10.11604/pamj.suppl.2020.35.1.19059).
- Morens, D., Folkers, G. and Fauci, A. (2004), 'The Challenge of Emerging and Re-emerging Infectious Diseases', *Nature*, 430, 242–9, doi: [10.1038/nature08554](https://doi.org/10.1038/nature08554).
- Mori, M., Capasso, E., Carta, F., Donald, W. A. and Supuran, C. T. (2020), 'A Deadly Spillover: SARS-CoV-2 Outbreak', *Expert Opinion on Therapeutic Patents*, 30:7, 481–5, doi: [10.1080/13543776.2020.1760838](https://doi.org/10.1080/13543776.2020.1760838).
- Rodríguez-Baño, J. et al. (2021), 'Key Considerations on the Potential Impacts of the COVID-19 Pandemic on Antimicrobial Resistance Research and Surveillance', *Transactions of the Royal Society of Tropical Medicine and Hygiene*, 115:10, 1122–9, doi: [10.1093/trstmh/trab048](https://doi.org/10.1093/trstmh/trab048).
- Singh, A. K., Singh, R., Joshi, S. R. and Misra, A. (2021), 'Mucormycosis in COVID-19: A Systematic Review of Cases Reported Worldwide and in India', *Diabetes & Metabolic Syndrome: Clinical Research & Reviews*, 15:4, 102146, doi: [10.1016/j.dsx.2021.05.019](https://doi.org/10.1016/j.dsx.2021.05.019).
- Uniting to Combat Neglected Tropical Diseases (2021), 'Our open letter on the UK cuts: A tragic blow for "global Britain" and the world's most vulnerable people', 29 April, <https://unitingtocombatntds.org/news/a-tragic-blow-for-global-britain-and-the-worlds-most-vulnerable-people/> (accessed 19 October 2021).
- Weiss, D. et al. (2021), 'Indirect Effects of the COVID-19 Pandemic on Malaria Intervention Coverage, Morbidity, and Mortality in Africa: A Geospatial Modelling Analysis', *The Lancet Infectious Diseases*, 21:1, 59–69, doi: [10.1016/S1473-3099\(20\)30700-3](https://doi.org/10.1016/S1473-3099(20)30700-3).
- World Health Organization (2021a), 'Ninth Report of the Strategic and Technical Advisory Group for Neglected Tropical Diseases (STAG-NTDs)', [www.who.int/publications/m/item/ninth-report-of-the-strategic-and-technical-advisory-group-for-neglected-tropical-diseases-\(stag-ntds\)](http://www.who.int/publications/m/item/ninth-report-of-the-strategic-and-technical-advisory-group-for-neglected-tropical-diseases-(stag-ntds)) (accessed 19 October 2021).
- World Health Organization (2021b), *Ending the Neglect to Attain the Sustainable Development Goals: A Road Map for Neglected Tropical Diseases 2021–2030* (Geneva: WHO), www.who.int/publications/i/item/9789240010352 (accessed 19 October 2021).
- World Health Organization (2021c), 'Fact sheet: Leishmaniasis', 20 May, www.who.int/news-room/fact-sheets/detail/leishmaniasis (accessed 19 October 2021).