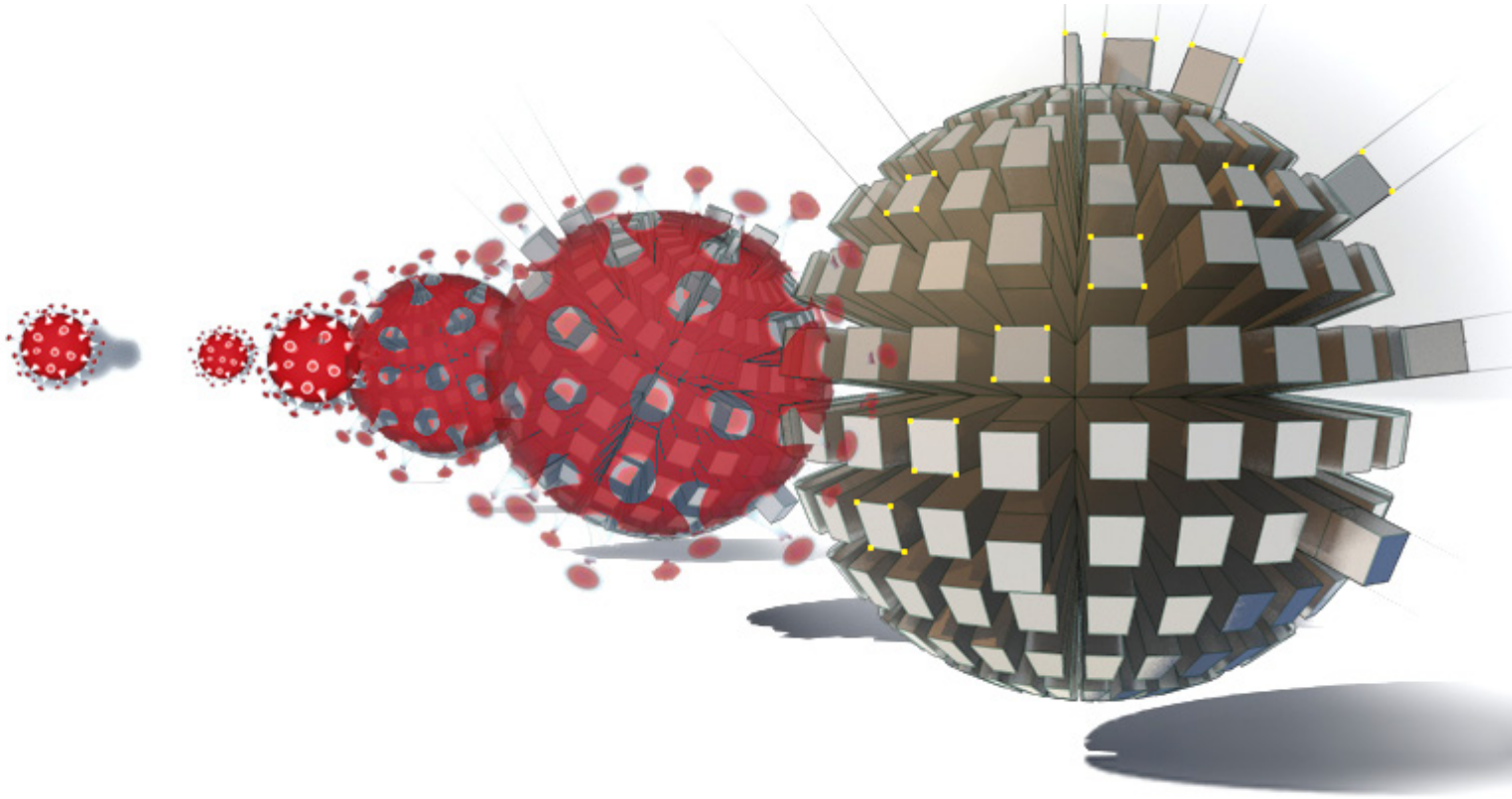

Impact of the COVID-19 pandemic on seven neglected tropical diseases: a model-based analysis

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ISBN 978-92-4-002767-1 (electronic version)
ISBN 978-92-4-002768-8 (print version)

Suggested citation. Impact of the COVID-19 pandemic on seven neglected tropical diseases: a model-based analysis. Geneva: World Health Organization; 2021. Licence: CC BY-NC-SA 3.0 IGO.

Cataloguing-in-Publication (CIP) data. CIP data are available at http://apps.who.int/iris.

Contents

Acknowledgements

The World Health Organization (WHO) is grateful to Maryam Aliee, Roy M. Anderson, Diepreye Ayabina, Maria-Gloria Basáñez, David J. Blok, Seth Blumberg, Anna Borlase, Beth Bruce, Rocia Caja Rivera, M. Soledad Castaño, Nakul Chitnis, Luc E. Coffeng, Ronald E. Crump, Christopher N. Davis, Emma L. Davis, Michael Deiner, Sake De Vlas, Federica Giardina, Jonathan Hamley, Rinke C. Hoekstra, T. Déirdre Hollingsworth, Ching-I Huang, Klodeta Kura, Tom Leitman, Veronica Malizia, Graham Medley, Edwin Michael, Ali Molloy, Travis Porco, Joaquín M. Prada, Kat S. Rock, Epke A. Le Rutte, Swarnali Sharma, Wilma A. Stolk, Jaspreet Toor, Panayiota Touloupou, Andreia Vasconcelos, Carolin Vegvari and Martin Walker, who undertook the modelling work described in this document. These models have been published in the peer-reviewed literature (references *7–15*). Funding for the NTD Modelling Consortium and this work was provided by the Bill & Melinda Gates Foundation.

The document was drafted by Andreia Vasconcelos (Big Data Institute, Li Ka Shing Centre for Health Information and Discovery, University of Oxford) and T. Déirdre Hollingsworth (Big Data Institute, Li Ka Shing Centre for Health Information and Discovery, University of Oxford) with input from Simon Brooker (Bill & Melinda Gates Foundation), and revised with assistance from Karen Ciceri-Reynolds (WHO), Albis Gabrielli (WHO), Amadou Garba Djirmay (WHO), Saurabh Jain (WHO), Amir B. Kello (WHO), Jonathan D. King (WHO), Ana Lucianez (Pan American Health Organization [PAHO]/WHO), Mwelecele N. Malecela (WHO), Antonio Montresor (WHO), Santiago Nicholls (PAHO/WHO), Gerardo Priotto (WHO), Martha I. Saboyá-Díaz (PAHO/WHO), Dieudonné Sankara (WHO), Ronaldo Carvalho Scholte (PAHO/WHO) and Anthony W. Solomon (WHO).

Key messages

- Delays in mass drug administration (MDA) and active case-finding activities due to COVID-19 will generally lead to a resurgence in neglected tropical diseases (NTDs) for which these interventions are an important part of the public health approach. More time and greater total numbers of rounds of MDA are likely to be needed to reach agreed public health targets for these NTDs.
- Existing models do not allow estimation of numbers of additional disability-adjusted life years lost or other possible negative or positive effects, such as on antimicrobial resistance in causative organisms.
- The underlying dynamics of each infection, local transmission parameters, duration of delay, history of programme activity, chance and implementation of remedial strategies will influence the ultimate impact.
- Populations in which infection transmission is most intense are at greatest risk because resurgence will be greatest in these populations.
- Populations served by programmes that are in their early stages will experience a return to pre-treatment endemicity levels, whereas those served by more advanced programmes that have previously managed to reduce or control transmission will observe lower levels of resurgence, provided the current transmission rate is not too high.
- Schistosomiasis, trachoma and visceral leishmaniasis (in high transmission settings for each) are the NTDs for which the models suggest that remedial strategies are most likely to be needed.
- Once programmes can resume community-based interventions, modelling analyses suggest that proposed remedial strategies may help to get progress towards 2030 targets back on track. This will require empirical confirmation in population-based studies. In some populations, modelling analyses suggest that remedial strategies might also provide an opportunity to accelerate progress; this would also require empirical confirmation.
- A limitation of the available evidence is that remedial strategies have only been modelled in terms of their potential impact on transmission. No analysis of cost, cost-effectiveness or cost-benefit was conducted, nor was the availability of the additional medicines and diagnostics that might be needed to implement them explored. It is therefore possible that some remedial strategies modelled here might not be widely implementable.