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Author manuscript

*Lancet*. Author manuscript; available in PMC 2023 May 12.

Published in final edited form as:

*Lancet*. 2021 February 27; 397(10276): 793–794. doi:10.1016/S0140-6736(21)00262-2.

## Certifying Guinea worm eradication in humans and animals

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The Viewpoint by David Molyneux and colleagues,<sup>1</sup> members of the International Commission for the Certification of Dracunculiasis Eradication, notes the special challenges they face in preparing to certify that there are no Guinea worms remaining in humans or animals in the final seven countries that have not yet been certified as free of transmission, since eradication programmes detected the sustained transmission of *Dracunculus medinensis* among domestic dogs in Chad, Ethiopia, and Mali. We believe a comprehensive approach to evidence for certification might include a range of actions.

First, community-based surveillance should continue to document the declining numbers of patients and animals with Guinea worm infections, and make use of surveys of reward awareness, tallies of the numbers of rumours, and evaluations of system management to assess surveillance sensitivity.

Second, expanded genetic testing should be done to monitor reduced worm diversity and confirm worm linkages in the same and proximate generations.

Third, dogs should be tested with the use of a serological assay (if validated) to search for pre-emergent worms and identify hot spots for further monitoring and evaluation.

Fourth, environmental sampling and monitoring protocols should be done with the use of a loop-mediated isothermal amplification assay (if validated) to detect *D medinensis* DNA in copepods or in fingerlings (small fish), which concentrate copepods by feeding on them.

Finally, research should be continued to develop other tools for eradication and certification, including mathematical modelling.

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We declare no competing interests. The viewpoints expressed in this Correspondence are those of the authors and do not necessarily represent the official position of the US Department of Health and Human Services, the Centers for Disease Control and Prevention, or the authors' affiliated institutions.

These indicators, along with annual data on interventions and no detected human or animal infections for 3 years, would provide reasonable evidence that transmission has stopped. We acknowledge the tremendous efforts of endemic countries, their partners, and many generous donors towards the success of the eradication campaign so far. We also stress the need to redouble our efforts to help the final few countries finish the job.

## References

1. Molyneux DH, Eberhard ML, Cleaveland S, et al. Certifying Guinea worm eradication: current challenges. *Lancet* 2020; 396: 1857–60. [PubMed: 33278938]