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Supplementary appendix 4

This Equitable Partnership Declaration (EPD) was submitted by the authors, and we reproduce it as supplied. It has not been peer reviewed. *The Lancet*'s editorial processes have not been applied to the EPD.

Supplement to: Kanyama C, Kouanfack C, Nyirenda S, et al. Causes of HIV-related CNS infection in Cameroon, Malawi, and Tanzania: epidemiological findings from the DREAMM HIV-related CNS implementation study. *Lancet Glob Health* 2025; **13:** e345–54.

Equitable Partnership Declaration questions

This Equitable Partnership Declaration is a statement being published online alongside papers at *The Lancet Global Health*, as a separate appendix, to allow researchers to describe how their work engages with researchers, communities, and environments in the countries of study. This is part of our broader goal to decolonise global health, handing control and leadership of research to academics and clinicians who are based in the regions of study, and to affected communities.

Please answer all questions with as much detail as possible, noting that all included information will be published open-access and it will be freely available online to all who wish to read it. If a question does not apply to your study, please state "Not applicable".

The format of and questions in this statement are currently in a pilot phase. Please email Dr Liam Messin (Liam.Messin@lancet.com; deputy editor) and Dr Kate McIntosh (Kate.McIntosh@lancet.com; senior editor) with any feedback, particularly if you find any questions unclear.

Researcher considerations

1. Please detail the involvement that researchers who are based in the region(s) of study had during a) study design; b) clinical study processes, such as processing blood samples, prescribing medication, or patient recruitment; c) data interpretation; and d) manuscript preparation, commenting on all aspects. If they were not involved in any of these aspects, please explain why.

   This question is intended for international partnerships; if all your authors are based in the area of study, this question is not applicable.

   This should include a thorough description of their leadership role(s) in the study. Are local researchers named in the author list or the acknowledgements, or are they not mentioned at all (and, if not, why)? Please also describe the involvement of early career researchers based in the location of the study. Some of this information might be repeated from the Contributors section in the manuscript. Note: we adhere to ICMJE authorship criteria when deciding who should be named on a paper.

a) Study design: The DREAMM implementation science project intervention and implementation strategies were co-designed with the local researchers and implementation leads, hospital directors, front-line health workers, laboratory technicians and local Ministry of Health representatives.
b) Clinical study processes: Study processes were co-designed with the African Principal Investigators (PIs) at each site and implemented by the respective routine care teams with support and oversight from local research or implementation teams. The DREAMM training programme was co-designed with the local hospital directors and implementation or research leads and tailored to laboratory technicians and front-line healthcare workers working in low- and middle- income countries.

c) Data interpretation: Data cleaning and analysis was performed in collaboration with the statistical team, the African PIs and their respective research or implementation teams.
d) Manuscript preparation: The manuscript was written in close collaboration with the African PIs and the statistical team. The African PIs are all joint first authors in keeping with the truly equitable partnership that underpinned the success of the project. Early career researchers based in African LMICs and hospital directors are all co-authors. 50% (14/28) of the authors are from and based in the LMIC settings studied.

2. Were the data used in your study collected by authors named on the paper, or have they been extracted from a source such as a national survey? ie, is this a secondary analysis of data that were not collected by the authors of this paper. If the authors of this paper were not involved in data collection, how were data interpreted with sufficient contextual knowledge?

   The Lancet Global Health *believe contextual understanding is crucial for informed data analysis and interpretation.*

The data collected was collected by the African PIs and the respective site teams at each DREAMM site. The data was analysed in conjunction with the local and statistical teams. All authors were involved in the data analysis, manuscript writing and finalisation.

3. How was funding used to remunerate and enhance the skills of researchers and institutions based in the area(s) of study? And how was funding used to improve research infrastructure in the area of study?

   Potentially effective investments into long-term skills and opportunities within institutions could include training or mentorship in analytical techniques and manuscript writing, opportunities to lead all or specific aspects of the study, financial remuneration rather than requiring volunteers, and other professional development and educational opportunities.

   Improvements to research infrastructure could be funding of extended trial designs (such as platform trials) and use of master protocols to enable these designs, establishment of long-term contracts for research staff, building research facilities, and local control of funding allocation.

Skills: Local laboratory technicians and front-line healthcare workers were skilled by the study to provide quality care for HIV-related CNS infection, a leading cause of persistent and unacceptable deaths from AIDS
Research infrastructure: New and optimised clinical and laboratory pathways to expedite quality care for HIV-related CNS infection were implemented at each study site. Where required new equipment (e.g incubators for fungal culture, microscopes, lumbar puncture mannequins etc…) for routine care structures was purchased and donated following the end of the project. Training on their use was provided by the local research and implementation staff at each site.

4. How did you safeguard the researchers who implemented the study?

   Please describe how you guaranteed safe working conditions for study staff, including provision of appropriate personal protective equipment, protection from violence, and prevention of overworking.

The project was underpinned by the buy-in of the local hospital directors, research or implementation leads and Ministries of Health from study outset. This ensured that implementation of study procedures were locally led and had potential to become standard of care. Routine care staff benefited from the support and oversight of local research and/or implementation leads.

<u>Benefits to the communities and regions of study</u>

5. How does the study address the research and policy priorities of its location?

   How were the local priorities determined and then used to inform the research question? Who decided which priorities to take forward? Which elements of the study address those priorities?

The study was conceptualised based on in-depth knowledge of the local context through work in public hospitals across Africa within investigator-driven clinical trials and advocacy work for essential tests and medicines. In addition, during the study, the African PIs and the hospital directors and their teams were empowered to codesign and deliver all interventions and implementation strategies. For example, training sessions were as much about imparting knowledge as about local engagement and empowerment such that new, optimised clinical and laboratory pathways to expedite rapid, targeted treatment were devised with input from front-line healthcare workers during the observation and training phases of the project.

6. How will research products be shared in the community of study?

For instance, will you be providing written or oral layperson summaries for non-academic information sharing? Will study data be made available to institutions in the region(s) of study? The Lancet Global Health *encourages authors to translate the summary (abstract) into relevant languages after paper editing; do you intend to translate your summary?*

The initial DREAMM study findings have been widely disseminated including within a dedicated website:www.dreamm.net. Study data is owned by the consortium partners and study teams at each of the study sites. The summary will be translated into French and Portuguese after editing.

7. How were individuals, communities, and environments protected from harm?

a) *How did you ensure that sensitive patient data was handled safely and respectfully? Was there any potential for stigma or discrimination against participants arising from any of the procedures or outcomes of the study?*

All patient data was anonymised and stored confidentially. Data were stored in dedicated areas and cabinets under lock and key and only accessible by research staff at each site.

b) *Might any of the tests be experienced as invasive or culturally insensitive?*

The tests performed were all aligned with established and well recognised national and international guidelines including from the World Health Organisation. The project teams worked with frontline healthcare workers and laboratory technicians to overcome barriers (e.g lack of training on diagnostic and therapeutic lumbar punctures) to lumbar puncture, a gold standard test, unless contraindicated, for the diagnosis of HIV-related CNS infection.

c) *How did you determine that work was sensitive to traditions, restrictions, and considerations of all cultural and religious groups in the study population?*

The work focused on the diagnosis and management of critically unwell people living with HIV presenting to hospital with suspected CNS infection. We worked with front-line healthcare workers and laboratory workers and their hospital leaders with support from local researchers, implementation leads and Ministries of health such that the hospital ecosystem became a community effectively driving 'bottom-up' change.

d) *Were biowaste and radioactive waste disposed of in accordance with local laws?*

Not applicable

e) *Were any structures built that would have impacted members of the community or the environment (such as handwashing facilities in a public space)? If so, how did you ensure that you had appropriate community buy-in?*

A new structure to store rapid diagnostic tests all together opposite the emergency area at the DREAMM site in Lilongwe, Malawi. The structure was built at the request of the DREAMM PI and helped ensure that pathway for RDTs were sustainable, lasting well beyond the duration of the study to this day.

f) *How might the study have impacted existing health-care resources (such as staff workloads, use of equipment that is typically employed elsewhere, or reallocation of public funds)?*

The study was specifically designed to integrate and optimise the delivery of quality care for HIV-related CNS infection within routine care services in African LMICs. The buy in and input from hospital directors and local Ministries of Health meant that codesigned interventions and strategies became standard of care.

8. Finally, please provide the title (eg, Dr/Prof, Mr/Mrs/Ms/Mx), name, and email address of an author who can be contacted about this statement. This can be the corresponding author.

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