

How to DREAMM and end HIV-related deaths



WHO has recently issued new guidance on critically unwell people with advanced HIV disease (AHD) as a key missing element in the fight to end HIV-related deaths.^{1,2} Tuberculosis and HIV-related CNS infections are leading causes of HIV-related deaths in low-income and middle-income countries (LMICs).^{3,4} However, practicable methods to implement recommendations in resource-poor public hospital settings in LMICs are scarce. In our experience, public hospitals in LMICs face systemic barriers in delivering high-quality care, and they require financial investment and strengthening. Effective life-saving interventions exist, and it is simply not acceptable to wait for the potential arrival of better tools (sometimes called techno-optimism) or strategies in the face of continued human suffering and preventable deaths.

In the results of the humanitarian Driving Reduced AIDS-associated Meningo-encephalitis Mortality (DREAMM) implementation science project published in *The Lancet HIV*,⁵ we showed what can be achieved within public hospital facilities when essential tests and medicines are available to African health leaders who are empowered to strengthen their health system and train their workforce. The new, context-driven methodology reduced short term mortality from meningitis linked to HIV by approximately 50%, and appears to be generalisable to resource-limited public hospital settings in Malawi, Tanzania, and Cameroon.⁵

The combination of elements within DREAMM of health system engineering, education, social science, clinical mentorship, and laboratory capacity building was powerful in reducing mortality within routine care services.⁵ Public hospitals were strengthened to deliver quality care through three main routes: first, education; second, optimised hospital pathways to speed up diagnosis and targeted treatment; and third, joint communities of practice including clinical mentorship and laboratory capacity building. Networks of hospital directors linking with local Ministries of Health and implementation and research leads designed and delivered all DREAMM interventions, including training frontline health-care workers and laboratory technicians to optimise the standard of care.⁵

Health system strengthening within DREAMM required dedicated focus, time, patience, and leadership and team-building skills to enact. The DREAMM training

programme was not only an opportunity to impart life-saving skill sets, but also an invaluable forum for engagement and team building, including improving communication between the frontline health-care workers and laboratory technicians who codesigned new pathways within their public facilities.^{5,6} Weekly communities of practice providing clinical mentorship and laboratory capacity building through virtual ward rounds fostered accountability, responsibility, and team building for a health system that was constructed by locally-led teams of frontline staff and leaders.⁵

There is an urgent need to focus on and invest in tailored training and mentorship for frontline health-care workers and laboratory technicians, using the same bottom-up approach as within the DREAMM project, led by African health leaders with facilitation from partners where required. This could result in faster diagnosis and better targeted treatment via codesigned clinical and laboratory pathways.

New guidelines are needed to provide comprehensive recommendations for how life-saving care can be delivered in practice, using syndromic approaches where possible (eg, for HIV-related CNS infection) and based on findings from implementation science projects. Finally, in our experience, health leaders working in resource-limited settings need to be given the resources to develop team-building and leadership skills, so that they can effectively lead their teams locally and advocate for their needs on the international global health stage. Investment in the support and training of local health leaders and their workforce needs to be scaled up so that they can lead the rebuilding of their health systems to serve their communities.^{6,7}

None of the above is possible without sustainable supplies of life-saving tests and medicines. Collaborative efforts across global health partners (eg, the [End AIDS Action Group](#), AHD Alliance, and the Fight AIDS Coalition) need to intensify and include a focus on countries that speak French and Portuguese, so that access to essential tests and medicines is no longer a barrier to saving lives. Local laboratory and pharmacy systems need to be strengthened so that procurement is coordinated, machinery serviced, and key supplies such as reagents are readily available. Key initiatives, such as Unitaid and The Clinton Health Access Initiative's AHD

Lancet Glob Health 2023

Published Online
October 4, 2023
[https://doi.org/10.1016/S2214-109X\(23\)00429-1](https://doi.org/10.1016/S2214-109X(23)00429-1)

For more on DREAMM see
<https://dreamm.net/>

For more on End AIDS Action
Group see <https://endaidsaction.group/>

For more on Unitaid see
<https://unitaid.org/advanced-hiv-disease/#en>

programme, that provided catalytic procurement of life-saving tests and medicines for often prohibitively small market sizes need to be expanded until the time that Ministries of Health are able to sustainably procure commodities either directly, or through Global Fund and the US President's Emergency Plan for AIDS relief mechanisms.

Four decades into the epidemic, systemic change is required to end HIV-related deaths. The health system deficiencies identified within the DREAMM observation phase do not only affect HIV-related deaths, but also the success of numerous other programmes, including those related to non-communicable diseases, paediatrics, and neglected tropical diseases.⁵ Urgent investment in health system strengthening and local health leadership is therefore needed alongside the establishment of robust systems for surveillance data and mortality indicators. In addition, how we deliver codesigned interventions with humanitarian values and justice and equity for frontline health-care workers and laboratory technicians who do not stand to gain financially is as important as which scientifically proven strategy is implemented. Excellence in delivery of health care together with humanitarian values underpin our vision of Africa-led health care, which is truly the future for the continent.

We declare no competing interests. AL is the Chair and Lead of the End AIDS Advocacy Group which encompasses the activities of CryptoMAG. This is an unfunded role.

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