

Non-ART trained health-care workers needed to prescribe PrEP in South Africa

In the Viewpoint by Schmidt and colleagues,¹ it is argued that task sharing of HIV testing and treatment is an important enabler of global HIV treatment access. With 1.5 million incident HIV infections in 2020,² the authors argue for relying on nurses to support the rapid expansion of access to pre-exposure prophylaxis (PrEP). The authors cite South Africa as a primary example of the “success” in task sharing for PrEP, in which “nurse-led PrEP delivery facilitated the rapid expansion of the PrEP programme to more than 2000 public health-care facilities”.³

However, in South Africa PrEP guidelines state that only nurses with comprehensive antiretroviral therapy (ART) training (ie, Nurse Initiation and Management of ART [NIMART]) can prescribe or monitor people on PrEP.⁴ NIMART-trained nurses remain scarce and are overburdened with managing treatment for more than 8 million people living with HIV. The requirement that nurses prescribing PrEP are NIMART-trained is a substantial barrier to scale-up in South Africa and to integration within sexual and reproductive health, antenatal, and maternal child health services.

PrEP experience for both nurses and patients to date shows that emtricitabine with tenofovir is well tolerated with very few adverse events, which include rare cases of treatment resistance or renal failure.⁵ Preparing appropriate health-care personnel with simple PrEP-focused training could enable improved access in all sectors, not just in HIV clinics. Increasing the number of nurses, midwives, and pharmacists that are able to safely support PrEP prescription and monitoring will expedite implementation, improve access, and might support effective

adherence for the communities who need it most.

L-GB reports honoraria from Merck, Gilead, and ViiV Healthcare for lectures, presentations, or educational events. DJD reports honoraria from ViiV Healthcare for lectures, presentations, or educational events and grant support from National Institute of Health. All other authors declare no competing interests.

*Aurelie Nelson, Andy Gray, Linda-Gail Bekker, Anna Grimsrud, Lynne S Wilkinson, Dvora Joseph Davey aurelie.nelson@gmail.com

Division of Epidemiology and Biostatistics, University of Cape Town, Cape Town, South Africa (AN, DJD); Division of Pharmacology, School of Health Sciences, University of KwaZulu-Natal, Durban, South Africa (AGra); Desmond Tutu Health Foundation, Cape Town, South Africa (L-GB); International AIDS Society, Cape Town, South Africa (AGri, LSW); Division of Infectious Diseases, Geffen School of Medicine, University of California Los Angeles, LA, USA (DJD); Center for Infectious Disease and Epidemiological Research, School of Public Health and Family Medicine, University of Cape Town, Cape Town, South Africa (LSW)

- 1 Schmidt H-MA, Schaefer R, Nguyen VTT, et al. Scaling up access to HIV pre-exposure prophylaxis (PrEP): should nurses do the job? *Lancet HIV* 2022; **9**: e363–66.
- 2 UNAIDS. Global commitments, local action: after 40 years of AIDS, charting a course to end the pandemic. Geneva: Joint United Nations Programme on HIV/AIDS (UNAIDS), 2021.
- 3 Beesham I, Heffron R, Evans S, et al. Exploring the use of oral pre-exposure prophylaxis (PrEP) among women from Durban, South Africa as part of the HIV prevention package in a clinical trial. *AIDS Behav* 2021; **25**: 1112–19.
- 4 National Department of Health. 2021 updated guidelines for the provision of oral pre-exposure (PrEP) to persons at substantial risk of HIV infection. Pretoria: South Africa National Department of Health, 2021.
- 5 Schaefer R, Amparo da Costa Leite PH, Silva R, et al. Kidney function in tenofovir disoproxil fumarate-based oral pre-exposure prophylaxis users: a systematic review and meta-analysis of published literature and a multi-country meta-analysis of individual participant data. *Lancet HIV* 2022; **9**: e242–53.

A new initiative to track HIV resource allocation

Globally, more than US\$20 billion are spent each year on HIV prevention and treatment.¹ This includes expenditures from country ministries, as well as bilateral and multilateral investments. However, it is notoriously difficult to know how resources are actually being expended at health-care facilities.² In the long run, this information should

shape sustainable financing of HIV epidemic control.

A new initiative known as activity-based costing/management (ABC/M)—coordinated by the Office of the Global AIDS Coordinator, The US Agency for International Development, The Global Fund to Fight AIDS, Tuberculosis and Malaria, and UNAIDS—is seeking to transform the status quo.³ These institutions have aligned behind a novel framework to gather resource allocation information on services for thousands of patients receiving HIV/AIDS care throughout sub-Saharan Africa.

The initiative will use time-driven activity-based costing (TDABC) to directly observe the resource consumption patterns of individual patients as they move through health-care facilities.⁴ By distilling HIV service delivery to a series of process maps (appendix), TDABC will yield insights into where patients go, what services they receive, how long and how often they interface with providers, what types of medicines they receive, and what laboratory tests are ordered. This information should allow policy makers to determine whether facilities are implementing service delivery protocols that correspond to best practices, or if there are departures that could compromise patients’ health outcomes.

Perhaps the most unique feature of TDABC is that it quantifies resource consumption in terms of the minutes that the patient uses a resource, whether that resource is a provider, a physical space, or medical equipment.⁵ This allows researchers to examine the main factors that account for variation in resource consumption across patients, including whether those factors match expectations (eg, sicker patients receive more resources) or else indicate inequities (eg, wealthier patients receive more resources).

The overarching objective of ABC/M is to empower country governments and global health institutions to align and optimise investments to improve

See Online for appendix



population health. Participating ministries, which so far include those of Kenya, Mozambique, Namibia, Tanzania, Uganda, and Zambia, will regularly convene through a secretariat to share findings and exchange ideas on how to strengthen clinical care. Each country level effort will also feature a steering committee that safeguards country ownership of the ABC/M process by developing implementation strategies, providing oversight of local partners, and internally deliberating results.

In time, ABC/M will expand to include an even larger cohort of participant countries. Cost estimates will be re-estimated and process maps redrawn at routine intervals to track progress. Ultimately, ABC/M holds the potential to fine tune clinical operations that could benefit millions of individuals affected by HIV/AIDS. Findings from early implementers, including Tanzania and Uganda, will be shared later this year.

The views expressed are those of the authors and do not necessarily represent the views of their employers and institutional affiliates. We would like to thank all members of the ABC/M Coordination Committee: AK Nandakumar, Carlyn Mann, Susanna Baker, Kalipso Chalkidou, Shufang Zhang, Fern Terris-Prestholt, Steven Forsythe, Bryant Lee, Sarah Byakika, Joshua Musinguzi, and Robert S Kaplan.

We declare no competing interests.

*Michael Ruffner, Linden Morrison,
Mai Hijazi, Iris Semini,
*Ryan K McBain, on behalf of the
ABC/M Coordination Committee
rmcbain@pih.org*

Office of the US Global AIDS Coordinator,
Washington, DC, USA (MR); The Global Fund,
Geneva, Switzerland (LM); USAID, Washington, DC,
USA (MH); UNAIDS, Geneva, Switzerland (IS);
Partners In Health, Boston, MA, USA (RKM); RAND,
Boston 02116, MA, USA (RKM)

- 1 Global Burden of Disease Collaborative Network. Global HIV/AIDS Spending 2000–2017. Seattle, WA: Institute for Health Metrics and Evaluation, 2020.
- 2 Global Burden of Disease Health Financing Collaborator Network. Health sector spending and spending on HIV/AIDS, tuberculosis, and malaria, and development assistance for health: progress towards Sustainable Development Goal 3. *Lancet* 2020; **396**: 693–724.

- 3 Institute for Global Health and Development. Activity-based costing and management. A global management system for tracking healthcare costs. 2022. <https://heller.brandeis.edu/abc> (accessed April 12, 2022).
- 4 McBain RK, Jerome G, Warsh J, et al. Rethinking the cost of healthcare in low-resource settings: the value of time-driven activity-based costing. *BMJ Glob Health* 2016; **1**: e000134.
- 5 Kaplan RS, Anderson SR. Time-driven activity-based costing. *Harvard Business Review*. Published online November, 2004. <https://hbr.org/2004/11/time-driven-activity-based-costing> (accessed April 12, 2022).