

## Ending HIV/AIDS: Not as close as many would have us believe

**To the Editor:** Declarations regarding the global elimination of HIV (the end of AIDS) would suggest that current efforts at prevention and treatment are close to being 100% effective.<sup>[1]</sup> The widespread roll-out and success of antiretroviral therapy (ART) for treating HIV, the promise of pre-exposure prophylaxis (PrEP) and the universal test-and-treat approach support such claims. In South Africa (SA), the success of programmes regarding prevention of mother-to-child-transmission (PMTCT) and a plethora of community-wide combination prevention programmes, suggest a slowing of HIV acquisition, also pointing to the end of HIV/AIDS. However, the recent publication of the failed PopART (effect of universal testing and treatment on HIV incidence) study<sup>[2]</sup> and continuing new infections within our longitudinal work in SA, suggest little slowing, let alone elimination, as we indicate below.

From May 2009 to January 2010, 98% ( $N=1\ 238$ ) of pregnant women in 24 matched, Cape Town township neighbourhoods were recruited. Mothers and children were assessed at 2 weeks after birth, and 0.5, 1.5, 3, 5 and 8 years after birth, with a high retention rate (83 - 96%).<sup>[3]</sup> Approximately 10% ( $n=127$ ) of mothers and children died over 8 years. Mothers' HIV status was self-reported at each assessment and validated with their children's government-issued Road-to-Health card. Rapid HIV tests were also conducted at the 8-year assessment. At the baseline assessment, 99% of women had been tested for HIV at their antenatal visit and 26% ( $n=324/1\ 238$ ) were HIV-positive. At the 8-year assessment, HIV status was determined in two ways:

- Mothers ( $n=601$ ) were tested with HIV rapid diagnostic tests (HIV RDTs); 45% of mothers were HIV-positive ( $n=269/601$ ).
- The remaining 303 mothers in the study had been tested antenatally or during the 8 years, and their status was reported on their child's Road-to-Health card; 47% were HIV-positive ( $n=141/303$ ).

Among the mothers completing the HIV RDTs, 36 reported that they were HIV-seronegative, but tested seropositive for HIV, reflecting a 6% discrepancy between self-reports and HIV test results.

Despite broad implementation of HIV prevention and treatment, HIV continues to spread among SA women. During the period of the broadest expansion of HIV services, an additional 17% of mothers became infected with HIV. Monitoring new infections among township mothers indicates that the broad expansion of HIV services in SA has not resulted in fewer HIV infections.

Estimates from the Global Burden of Diseases, Injuries, and Risk Factors (GBD) study are that, in sub-Saharan Africa, HIV/AIDS will

remain one of the leading causes of years of life lost in 2040, and that there is a real risk of HIV mortality rebounding, thus jeopardising the massive progress achieved to date.<sup>[4]</sup> The recent failure of large community-based trials in the same area,<sup>[2]</sup> coupled with our findings from SA, reflect the ongoing urgency of maintaining a focus on HIV and expanding services beyond the medical delivery of HIV testing and treatment to prevent a rebound in HIV mortality.<sup>[4]</sup>

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### Mary Jane Rotheram-Borus

*Department of Psychiatry, University of California, Los Angeles, USA*

### Sarah Gordon

*Institute for Life Course Health Research, Department of Global Health, Faculty of Medicine and Health Sciences, Stellenbosch University, Cape Town, South Africa*

### Joan Christodoulou

*Department of Psychiatry, University of California, Los Angeles, USA*

### Mark Tomlinson

*Institute for Life Course Health Research, Department of Global Health, Faculty of Medicine and Health Sciences, Stellenbosch University, Cape Town, South Africa; and School of Nursing and Midwifery, Queens University, Belfast, UK*  
*mark@sun.ac.za*

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