

Citation: Professor Landon Myer

Landon Myer is an epidemiologist known for his contributions to the field of HIV treatment and prevention in women in southern Africa, with a specific focus on antiretroviral therapy (ART) use in pregnant and breastfeeding women living with HIV (WLH). He has made major contributions to each component of the World Health Organisation's (WHO) "four-pillar" strategy for the prevention of mother-to-child transmission of HIV (PMTCT).

1. Preventing HIV infection in women

Professor Myer's PhD and subsequent early work focused on generating new knowledge around women's susceptibility to HIV acquisition with particular emphasis on the vaginal microenvironment [1] and exogenous hormones [2]. More recently this has extended to innovative implementation science research investigating the use of Pre-Exposure Prophylaxis during pregnancy and breastfeeding [3].

2. Preventing unintended pregnancies in WLH

Professor Myer's work in this area has been innovative and impactful in providing among the first insights into the challenges related to fertility intentions and practices in WLH and their partners in sub-Saharan Africa [4], as well as the first study of its kind demonstrating how widespread ART use may alter fertility in WLH [5]. Recently, this work has evolved into studies examining contraceptive options for WLH [6]. This body of research has helped motivate for specific guidelines related to fertility and HIV from the SA HIV Clinicians Society and the WHO.

3. Preventing mother-to-child transmission of HIV

The research for which Professor Myer is best known centres on the provision of ART to pregnant and postpartum women, and focuses in particular on ART non-adherence and HIV viral load as the drivers of both transmission risk and long-term ART outcomes. This has included research investigating viral load and MTCT during pregnancy [7]; the first detailed descriptions of the frequency of elevated viral load in WLH on ART in the postpartum period [8]; and novel insights into the relative contributions of ART non-adherence versus pre-ART drug resistance to the incidence of elevated viral load in postpartum WLH [9]. This work has made significant policy contributions both in SA and internationally by raising attention to challenges encountered in the management of HIV during the postpartum period. These contributions have been made in part through Professor Myer's roles on committees of the SA National Department of Health and the WHO (Antiretroviral Guidelines Development Group, 2015-present).

4. Ensuring long-term care and treatment for mothers living with HIV and their families

Keeping WLH and their children (both HIV-infected and -exposed but uninfected) healthy over the long-term is increasingly recognized as the ultimate goal PMTCT services. Professor Myer has helped develop novel conceptual frameworks for thinking about women's engagement in HIV care over time [10]. Using these frameworks he is widely known for driving the development and then testing of interventions to promote women's ART adherence and viral suppression during the postpartum period. This includes the first demonstration of how integration of ART into the maternal & child health platform improves outcomes for both mothers & infants [11], an approach that is now standard of care in several African countries. Further, he led the piloting [12] then testing [13] of a differentiated model of care that has demonstrated superiority to the standard of care in maintaining viral suppression during the postpartum period. Building on these interventions he has led advocacy for enhanced virologic monitoring during pregnancy and breastfeeding [14,15], a strategy that has since been adopted in SA and international guidance.

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