



Published in final edited form as:

*S Afr Med J.* ; 111(11): 1038–1039.

## Urgent appeal to implement pre-exposure prophylaxis for pregnant and breastfeeding women in South Africa

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In this editorial, we appeal to the South African (SA) National and Provincial Departments of Health to urgently implement pre-exposure prophylaxis (PrEP) for pregnant and breastfeeding women at risk of HIV acquisition, in view of the persistent and unacceptably high rate of maternal HIV infection and transmission in SA.

High HIV incidence among young women persists during pregnancy and postpartum,<sup>[1]</sup> and there is evidence that HIV acquisition risk increases by >2-fold during pregnancy and the postpartum period.<sup>[2-5]</sup> Acute maternal HIV infection is associated with increased vertical transmission risk,<sup>[6]</sup> making prevention of HIV among pregnant and breastfeeding women a national health priority.<sup>[1]</sup>

SA has the highest number of people living with HIV in the world, with HIV prevalence rates up to 41% in pregnant women. SA is committed to achieving the elimination targets in the World Health Organization (WHO) Last Mile Plan. In January 2015, SA rolled out prevention of mother-to-child transmission (PMTCT) Option B+, which enabled pregnant and breastfeeding women living with HIV (WLHIV) to initiate antiretroviral therapy for life, regardless of baseline CD4 count. Now, over 6 years later, it is critical that we expand the PMTCT guidelines to include not only HIV treatment but primary prevention of HIV in pregnant and breastfeeding women through the use of PrEP.

In the 2019 Antenatal HIV Sentinel Study in SA,<sup>[7]</sup> the overall prevalence of HIV in first antenatal care (ANC) visit attendees was 30%, ranging from 40.9% in KwaZulu-Natal to 17.9% in Western Cape Province (Fig. 1). In a recent analysis of the 2017 sentinel survey of >10 000 HIV-infected pregnant women,<sup>[8]</sup> the annual HIV incidence was 1.5% (95% confidence interval (CI) 1.2 - 1.7), based on HIV recency testing. The Joint United Nations Programme on HIV and AIDS (UNAIDS) target to reduce the incidence by 75% by 2020 (which is equivalent to reducing the incidence to <1%) has not been met.

There are ~1 million live births in SA annually, of which ~70% occur in women not living with HIV ( $n=700\,000$  live births). Many of these women are at very high risk of HIV acquisition and subsequent vertical transmission. These women have the right to access PrEP to protect them against HIV during this high-risk period. Currently in SA, ~1 in 3 infant infections arise from maternal seroconversion during pregnancy or breastfeeding.<sup>[9]</sup> SA will continue to struggle to reach the elimination goals unless the government ensures that women at risk can access an effective biomedical prevention option during their pregnancy and breastfeeding journey.

Since 2017, the WHO, the US President's Emergency Plan for AIDS Relief (PEPFAR) and several national HIV programmes have recommended offering daily oral tenofovir disoproxil fumarate (TDF)-based PrEP to pregnant and breastfeeding women at substantial risk for HIV,<sup>[10-12]</sup> based on a large body of safety data from WLHIV who used TDF for HIV treatment during pregnancy and breastfeeding.<sup>[10,11,13]</sup> Oral TDF-based PrEP is being scaled up among pregnant and breastfeeding women in sub-Saharan Africa, with notable implementation successes in Kenya and ongoing demonstration projects in SA, Lesotho, Malawi, Zambia and Zimbabwe.<sup>[10,14-18]</sup> Although SA's PMTCT policies mention PrEP as an option, they refer clinicians to PrEP guidelines that remain unclear about PrEP in pregnancy and limit initiation to doctors, leaving clinicians on their own to make decisions about how to proceed.<sup>[19,20]</sup>

Demonstration studies in SA have reported high acceptability and feasibility of integrating PrEP into antenatal and postnatal care. A recent study in Cape Town demonstrated that >85% of HIV-uninfected women accepted PrEP at their first ANC visit, and >70% continued on PrEP at month 1, and 60% at month 3. Those who were at higher risk, e.g. were diagnosed with a sexually transmitted infection, had a partner living with HIV or had >1 sex partners, were more likely to continue on PrEP. This study also demonstrated the safety of providing PrEP in this population, in line with other studies in the region.<sup>[14,21]</sup> Antenatal care uptake in SA is high, reaching >95%, creating a perfect opportunity to offer PrEP to women engaging in these routine services, including priority groups such as adolescent girls and young women and serodiscordant couples. Expanding PrEP implementation to include pregnant and breastfeeding women will further support SA's efforts to reach its ambitious PrEP uptake goals.

We call on the National and Provincial Departments of Health to urgently action the following steps:

- Implement PrEP prescription for pregnant and breastfeeding women

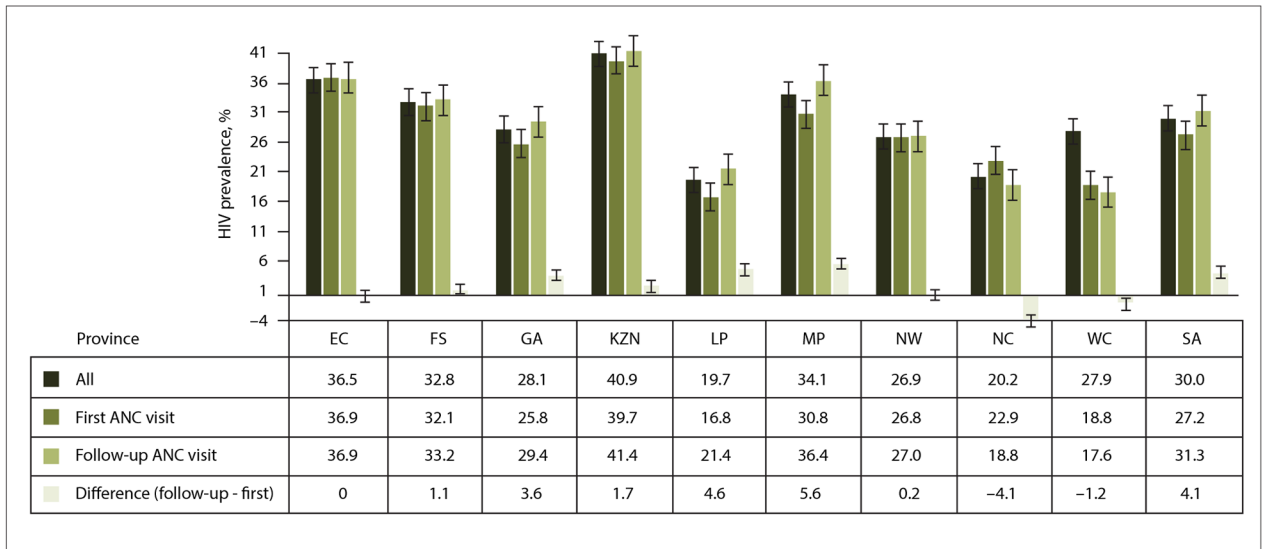
- Allow nurse-initiation and management of ART (NIMART) trained nurses and midwives to prescribe PrEP in ANC and postnatal settings
- Include PrEP as part of the updated PMTCT guidelines for HIV-uninfected women at substantial risk
- Simplify PrEP guidelines to ensure that it is provided on the same day as ANC to at-risk women, along with counselling on how best to ensure adherence to the daily pill.

Not offering PrEP to women not living with HIV but who are at risk of HIV acquisition, including those in serodiscordant relationships or with partners of unknown serostatus, undermines the efficacy of all the government's PMTCT efforts. It is urgent and overdue to implement PrEP in pregnancy and during breastfeeding. Doing so will align with the national PMTCT policy of 'strengthening antenatal and postnatal care for both HIV-negative and positive mothers'. Failure to do so in the face of proven prevention interventions allows ongoing avoidable HIV infection among women in SA, with the added high risk of transmission to their offspring.

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**Fig. 1.** HIV prevalence among first ANC visit attendees, follow-up ANC visit attendees and overall by province in the 2019 HIV Sentinel Survey, South Africa.<sup>[8]</sup> (EC = Eastern Cape; FS = Free State; GA = Gauteng; KZN = KwaZulu-Natal; LP = Limpopo; MP = Mpumalanga; NW = North West; NC = Northern Cape; WC = Western Cape; SA = South Africa; ANC = antenatal care.)