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PrEP implementation in pregnant and post-partum women

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HIV acquisition during pregnancy presents a serious threat to maternal and child health. WHO recommends pre-exposure prophylaxis (PrEP) for HIV prevention among pregnant women living in communities with high HIV incidence.[1,2] However, there are few studies of the implementation of PrEP during pregnancy and the post-partum period in settings with a high HIV burden. PrEP delivery to pregnant women under regular clinical conditions needs to be documented urgently.[3]

In the *Lancet HIV,* John Kinuthia and colleagues[4] report important results of their PrEP Implementation for Young Women and Adolescents (PrIYA) programme in Kenya. The study is the first to provide evidence from the real-world implementation of PrEP in 16 maternal and child health clinics in a region with high HIV prevalence (antenatal HIV prevalence >20%).

Among the key findings, 2030 (21·7%) of 9376 pregnant and post-partum women initiated PrEP, although only 786 (38·7%) of them returned for a refill prescription after 1 month. 104 (68·0%) of 153 women with partners living with HIV continued PrEP at least throughout the first month, but continuation was not as high for women with other risk factors for HIV.

This study shows that maternal and child health clinics could potentially be an effective platform for PrEP delivery because of existing services for the prevention of mother-to-child transmission and integrated HIV testing and retesting of HIV-uninfected women; however, it also indicates that advising and dispensing PrEP are, alone, unlikely to be sufficient to protect all pregnant women at risk for HIV.

We highlight two areas for future research to optimise maternal PrEP use. First, women who used PrEP reported increased behavioural risks of HIV acquisition, and initial uptake was

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highest among those with partners known to be HIV-infected (153 [79·3%] of 193 women). Uptake was much lower among women with other risk factors (eg, 1178 [37·2%] of 3165 women with partners of unknown serostatus initiated PrEP).[4] It remains unclear whether PrEP uptake in 22% of women is adequate to achieve the population-level benefits of this intervention.

The same authors previously published data showing that 39% of pregnant women in Kenya would be offered PrEP nationally using the guidelines for risk factors, which include partner HIV status and syphilis infection.[5] The reports that only 786 (38·7%) women returned for a PrEP refill at 1 month and 441 (21·7%) at 3 months and that only 189 (11·7%) of 1618 women (39 [35·1%] of 111 women with partners living with HIV) continued PrEP for at least 6 months are concerning. Further research is needed to evaluate how best to achieve optimal PrEP use—including uptake, long-term use, and adherence for all women at risk of HIV acquisition, such as pregnant and lactating women.

Second, the authors note that 40 dedicated programme nurses implemented the PrEP intervention in the clinics.[4] This approach makes sense in preliminary demonstration studies. But issues of training, staffing, and infrastructure to provide screening, dispensing, and adherence counselling and monitoring require careful scrutiny, if countries are to scale-up maternal PrEP as part of routine public sector care. Additionally, issues of cost and cost-effectiveness that are critical to inform policy making need to be addressed.

This programme operated in one region of Kenya with quite high HIV prevalence. Looking forward, the generalisability of any intervention to provide PrEP in pregnancy warrants close consideration across diverse health systems, and ongoing attention is needed to understand how implementation issues vary across settings with different HIV epidemics and health service factors.[6]

Optimising PrEP use during pregnancy is a potentially important component of services to promote maternal health in settings with high HIV burden and eliminate vertical HIV transmission. Kinuthia and colleagues' results are important for countries with high HIV incidence in pregnancy that are considering offering PrEP to pregnant and postpartum women.

We eagerly await results from studies that will evaluate maternal and infant outcomes infant outcomes and objective measures of PrEP exposure during pregnancy based on biological measures. As the use of PrEP in pregnancy expands, studies should monitor safety and share implementation science results on how best to scale up maternal PrEP for those who need it most.

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