Incident HIV Infections in Pregnant/ Breastfeeding Women and Infants in Mozambique

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BACKGROUND

According to UNAIDS, 40% of new pediatric infections in Mozambique are linked to incident maternal infection during pregnancy or breastfeeding. Since 2021, Mozambique has been implementing a policy of retesting all pregnant and breastfeeding women (PBFW) with negative or unknown HIV status every three months until nine months postpartum We aim to describe the provincial-level coverage of maternal retesting after the new policy was introduced and the association of incident maternal infections and positivity rates among HIV exposed infants.

METHODS

We analyzed the President's Emergency Plan for AIDS Relief (PEPFAR) Monitoring, Evaluation, and Reporting data from 1 April 2021 to 31 March 2022. We report HIV prevalence at first antenatal care visit (ANC1), the number of pregnant women who had HIV testing performed after ANC1, maternal HIV retesting positivity and coverage (percent tested after ANC1/ HIV negative at ANC1) and early infant diagnosis (EID) positivity at 12 months by province. We assessed the association of maternal incident HIV infection and new pediatric infections, using a Pearson's correlation coefficient.

PEPFAR
U.S. President's Emergency Plan for AIDS Relief

Among women retested for HIV during pregnancy or breast feeding, higher provincial positivity, a measure of incident maternal HIV infections, was associated with a higher percent of HIV positive infants.

RESULTS

Between April 2021 and March 2022, 99.3% (1,883,920/ 1,896,554) of pregnant women attending antenatal care had their HIV status assessed at ANC1. Of these, 116,354 (6.2%) were positive, which included newly positive and known HIV positive. During this time period, 568,601 PBFW were tested after ANC1, achieving a retesting coverage of 32%. Retesting coverage was highest in Maputo City (112.6%), Maputo Province (92.8%) and Gaza (58.9%) and below 40% in all other provinces (range 5.2% - 37.4%) (Table 1). Positivity for HIV exposed infants ranged between 1.3% in Maputo City to 5.1% in Cabo Delgado. There was a significant positive correlation between retesting positivity at provincial level and EID positivity at 12 months (correlation coefficient 0.7, p-value 0.01) and a significant negative correlation between Post ANC1 coverage and 12 months' EID positivity (correlation: -0.6, p-value 0.04) at provincial level.

CONCLUSIONS

Higher provincial HIV positivity among retested PBFW, a measure of incident HIV infections during pregnancy or breastfeeding, was associated with higher HIV positivity among infants in Mozambique. Lower provincial HIV retesting coverage of PBFW was negatively correlated with higher infant HIV positivity suggesting that uptake of maternal retesting may be a proxy for uptake of other critical PMTCT services. It is important to invest in preventing incident HIV infections in PBFW and their infants through interventions such as PrEP and retesting.

ADDITIONAL KEY INFORMATION

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Disclaimer: The findings and conclusions in this report are those of the authors and do not necessarily represent the official position of the funding agencies.

Table 1 HIV prevalence, maternal retesting and EID positivity in Mozambique, April 1, 2021 - March 31, 2022

Province	ANC1 HIV prevalence	Retesting coverage	Retesting positivity	EID pos less than 12 months
	(%)	(%)	(%)	(%)
Cabo Delgado	4.6%	24.2%	0.5%	5.1%
Sofala	9.3%	30.8%	0.7%	4.5%
Niassa	3.8%	5.2%	0.3%	3.7%
Nampula	3.9%	27.2%	0.5%	3.4%
Zambezia	7.0%	37.4%	0.4%	3.1%
Inhambane	6.7%	19.2%	0.2%	2.8%
Manica	6.9%	26.2%	0.3%	2.5%
Gaza	12.1%	58.9%	0.1%	1.9%
Maputo prov	11.9%	92.8%	0.2%	1.7%
Tete	3.7%	19.7%	0.3%	1.7%
Maputo city	12.3%	112.6%	0.3%	1.3%
National	6.2%	32.2%	0.4%	2.9%

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