“I didn’t know I should bring my child”

Reasons for failure to uptake EID among population-based sample of HIV positive women in Mashonaland East Province, Zimbabwe

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BACKGROUND

- HIV prevalence among women attending antenatal care (ANC) in Zimbabwe is 15.9%[1]
- In the absence of timely Early Infant Diagnosis (EID) and antiretroviral therapy (ART) initiation:
  - 1/3 of infants living with HIV die before their 1st birthday;
  - 1/2 die before the age of two.[2]
- Multiple, paper-based registers document health services received by HIV positive pregnant women and their exposed-infants in Zimbabwe.[3]
- The proportion of HIV-exposed infants who receive timely EID services is not routinely reported.
- Little is known about the reasons HIV positive mothers fail to present their HIV-exposed infants for timely EID.

OBJECTIVE

- To describe the reasons for failure to present HIV-exposed infants for timely EID among a sample of HIV positive women who received PMTCT services in antenatal care (ANC).

METHODS

From September to November 2014, we conducted a population-based survey among a probability sample of all HIV infected mothers enrolled in ANC from April 2012 to May 2013.

- 45/193 health sites in Mashonaland East Province were selected using a modified probability proportional to size schema based upon number of HIV positive women accessing ANC at each facility over the previous year.
- All HIV positive women at these facilities were manually traced through facility registers to determine documented uptake of EID for their HIV-exposed infant within three months of birth.
- Village Health Workers attempted to trace a random sample of 643 HIV positive women with no documented EID at household level to determine true EID status, services received and reasons for no EID using a pre-tested standardized questionnaire.
- Twenty-six possible individual reasons for no EID were solicited, grouped into five thematic categories. (Table 1)
- Study registered with Medical Research Council of Zimbabwe (MRCZ/A/1844) and participation followed written informed consent.
- Data was entered into Open Data Kit (ODK) and analysed descriptively using Stata v.13.

Table 1. Thematic groupings of reasons for no EID

Thematic area	Descriptions
Access to Care	Transport, fees, time constraints
Work and family	Spousal refusal, lack of social support, conflict
Medical	Perceived need, experience of illness
Clinic factor	Staff attitudes, quality of care, infrastructure, confidentiality
Alternative treatment and advice	Traditional and religious care providers

RESULTS

Tracing outcomes

- We identified 2, 646 HIV positive women among a population of 18, 065 attending ANC in 44 facilities (14.6%);
- 64.5% (n=1, 707) had no documented uptake of EID within 3 months of birth (95%CI: 62.7 - 66.3);
- A sample of 256 HIV positive women with no documented EID for their infants were traced.(15% of all LTFU; 95%CI: 6.8 to 7.5).

Characteristics of HIV positive women traced

- Median age of 31 years (IQR: 27-35)
- Mean household size of 2.8 (95% CI: 2.7- 2.9)
- Mean gravidity of 3.7 (95% CI: 3.4- 3.9)

Majority of respondents (Table 2)

- Lived in rural settings (86.3%) between 1-5km from nearest health facility (42.3%)
- Were of Apostolic faith (52.6%)
- In a monogamous marriage (76.8%) currently staying with their partner (77.2%)
- Highest level of education obtained was secondary (64.6%)

Table 2. Respondent characteristics (n=256)

		N	%
Age (years)	≤20	10	4.0%
	21 – 30	105	41.5%
	> 30	138	54.5%
Total pregnancies	1	19	7.5%
	2-3	103	40.6%
	4+	132	52.0%
Residential Status	Urban low density	35	13.7%
	Rural	220	86.3%
Marital status	Never married	7	2.8%
	Married monogamous	195	76.8%
	Married polygamous	11	4.3%
	Divorced or separated	29	11.4%
	Widowed	12	4.7%
Highest level of education	None	3	1.2%
	Primary	83	32.7%
	Secondary	168	66.1%
Religion	Apostolic	131	52.6%
	Christian	102	41.0%
	Traditional or other	16	6.4%
Distance from Facility	<1km	24	9.5%
	1-5km	107	42.3%
	5-10km	72	28.5%
	10km+	49	19.4%

RESULTS continued

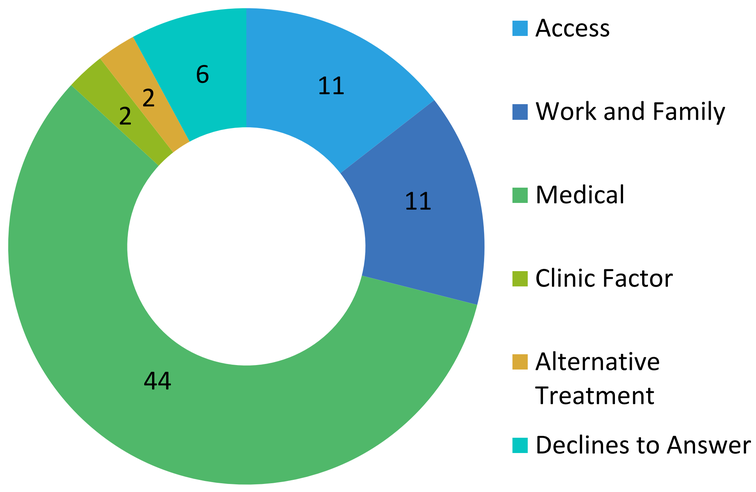
Majority HIV positive mothers traced indicated infant had EID

- 74.2% of HIV positive mothers indicated their infant had EID (n=190; 95%CI: 64.0 to 85.6);
- Fewer than 1/3 (31.6%; 95%CI: 25.1 to 39.3) of infants traced had DNA PCR samples taken < 90 days after birth;
- 25.8% (n=66; 95%CI: 20.0 to 32.8) indicated their HIV-exposed infant had not received EID.

Medical reasons greatest grouped reason for no EID

- Medical reasons accounted for the majority (57.9%) of reasons for no EID for exposed-infants cited by HIV positive mothers.

Figure 1. Reasons for no EID by category (n=76)*



*NB N is greater than total infants with no EID as mothers could cite multiple reasons were cited

Infant mortality greatest single reason for no EID

- “My child died” was the most frequently cited single reason for no EID (32.9%);
- Nearly half of the infants (n=30 46.2%) with no EID were deceased at the time of interview;
- Among infants for which timing of death could be ascertained (n=24), the majority (88.5%) died prior to the 3 months.

Among living infants: lack of information, spousal consent greatest reasons for no EID

- “I didn’t know I should bring my child in for EID” was the number one reasons for failure to have EID among living infants (Table 3)
- Issues related to fear of disclosure and misinformation within households featured among reasons: ‘husband/other family member would not allow me to have child tested’ (6.6%) and ‘accessing EID risked HIV disclosure to my family’ (3.9%)

Table 3. Top 5 reasons for no EID among HIV-exposed infants (N=76)

Rank	Reason no EID	n	%
1	Child died	25	32.9
2	I didn't know I should bring my child in for EID	15	19.7
3	Declines to answer	6	7.9
4	Husband/other family member knows my HIV status but would not allow me to have child tested	5	6.6
5	I didn't have enough money to access care	4	5.3

CONCLUSIONS

- Our study demonstrated EID uptake rates among HIV-exposed children substantially higher than indicated through manual tracing of clients through paper-based facility registers.*
- Infant death prior to scheduled EID was the most significant reason for failure to have EID among HIV exposed infants.**
- Further analysis on risk factors for mortality among HIV-exposed infants is required.
- Lack of awareness regarding necessity of EID underscores need for enhanced counselling regarding the importance of EID among HIV positive women in ANC and delivery settings
- Described influence of family and spouses, and fear of disclosure upon failure to uptake EID emphasizes importance of community engagement to support PMTCT and role of social networks.
- Ministry of Health and Child Care should be supported to scale implementation of information systems that effectively identify defaulters and rapidly return them to care in the drive to eliminate pediatric infections.
- Sampling-based approaches to provide a better picture of PMTCT program effectiveness by providing cohort-level data on service uptake and outcomes among mother-baby pairs
- Further implementation and operational research is required to identify evidence-based interventions to improve retention of mother-baby pairs for all services and rapidly return defaulters to care across the PMTCT cascade

*For more information see:*Oral Abstract THUAC1106;**Poster Abstract THUPDC057.

REFERENCES

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Acknowledgements: We gratefully acknowledge support from the President’s Emergency Plan for AIDS Relief (PEPFAR) through USAID and Families and Communities for Elimination of Pediatric HIV in Zimbabwe (AID-613-A-12-00003, *FACE Pediatric HIV)*

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