

Early Infant Diagnosis (EID) of Human Immunodeficiency Virus (HIV) in Children at Goroka Provincial Hospital , EHP, PNG.

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Introduction

- ❑ Paediatrics HIV and the transmission of HIV to babies is a huge problem globally.

- ❑ Prevention of Parent to Child Transmission (PPTCT) of HIV has helped to reduce Paediatrics HIV . In PNG , CHAI and UNICEF have greatly assisted in the PPTCT rollout to Centres of excellence.

- ❑ **Global figures (WHO 2014).**
 - More than 2.6 million children under 15 years of age are affected by HIV.
 - Treatment for children has been less than that of adults.

- ❑ **PNG HIV Prevalence. (NDOH 2014).**
 - Reducing prevalence rate from 1.21 % to 1%.
 - Paediatrics HIV babies on treatment is less than a thousand cases.
 - Eastern Highlands Province (EHP) has a population of 600,000.
 - EHP PPTCT Programme started in 2007.

AIM

To determine the outcome of children exposed to HIV and their outcomes in terms of Early Infant Diagnosis (EID) in the Eastern Highlands Province Prevention of Parent To Child Transmission Programme.

Methodology

1. PPTCT PROCESS.

- Opt In HIV counselling and testing at the Kama Antenatal Clinic.
- Confirmatory testing.
- PPTCT enrolment.
- Couples counselling.
- Case management and one stop treatment for the whole family.

Labour and Delivery:

- ✓ ART PROPHYLAXIS (NEVARIPINE) STAT DOSE AND BCG/Hep B was GIVEN.

- ✓ ZIDOVUDINE FOR SIX WEEKS.

PAEDIATRICS FOLLOW UP:

- 1ST DBS AT 6 WEEKS OF AGE.
- SEPTRIN PROPHYLAXIS STARTED AT 6 WEEKS.
- 2ND DBS DONE 2 MONTHS POST BREAST FEEDING CESSATION.
- IMMUNISATION AT APPROPRIATE AGES.
- MONTHLY FOLLOW UP FOR CASE MANAGEMENT.
- FINAL RDT HIV AT 18 MONTHS PRIOR TO DISCHARGE.

2. Study Duration.

- ❖ Descriptive study on PPTCT babies from 2007 to 2014 at the Kama Family Friendly Clinic, EHP, PNG.

3. Data Collection .

- ❖ Case files
- ❖ Clinic Books
- ❖ Excel spread sheet.
- ❖ Data cleansing.

4. Inclusion criteria.

- ❖ PCR DBS done at 6 -8 weeks and 6-8 months
- ❖ RDT HIV test at 18 months.

5. Exclusion Criteria

- ❖ Lost to follow up(LTFU) before 18 months
- ❖ Death.
- ❖ Transferred out

6. Analysis of data.

- ❖ Windows Excel.

7. Ethical clearance.

Goroka Hospital Administration, EHP PAC Secretariat and UPNG SMHS.

8. Financial implications. – Nil.

Results: Demographics

Variable			
Total analyzed		280 (470)	
Gender	Males	150	
	Females	130	
Length of stay (months)		18	
Education Status. (Mothers).		No education	40%
		Primary education	30 %
		High school.	30 %
Population		URBAN	60%
		RURAL	40 %

Variable			
BCG /Hepatitis B	Given	238 /280	(85%)
Nevirapine (NVP).	Given	250/280	(89%)
Zidovudine (AZT)	Yes	280/280	(100%)
Septrin	Yes	250/280	(90%)
Feeding choices	Exclusive breast feeding	238/280	(85%)
	Artificial feeds	14/280	(5%)
	Mixed feeding	28/280	(10%)
Immunisation	Fully vaccinated	252/280	(90%)

Variable (N=280)		
IPT	Done	100 %
Babies started on TB treatment	Yes	5 %
Couples Counseling	Counseled	90 %
Case Management	Follow up	90 %
	LTFU	10 %
Mum on HAART	Option B +	40 %
	Non Option B+	60 %
Dad on HAART.	Yes	80 %

Results – Overall Outcomes

<u>N=470</u>	<u>Number</u>	<u>Percentage</u>
Discharged	300	63 %
LTFU	50	11 %
Transferred out	10	2%
Died	25	5 %
Pending Analysis	85	19 %

Results- ANC HIV Prevalence

Year	2009	2010	2011	2012	2013
ANC visits	3500	3700	4000	4200	4500
HIV Testing.	3200	3300	3700	3986	4100
HIV +	48	48	54	60	55
<u>Prevalence</u>	1.5%	1.4%	1.4%	1.5%	1.3%

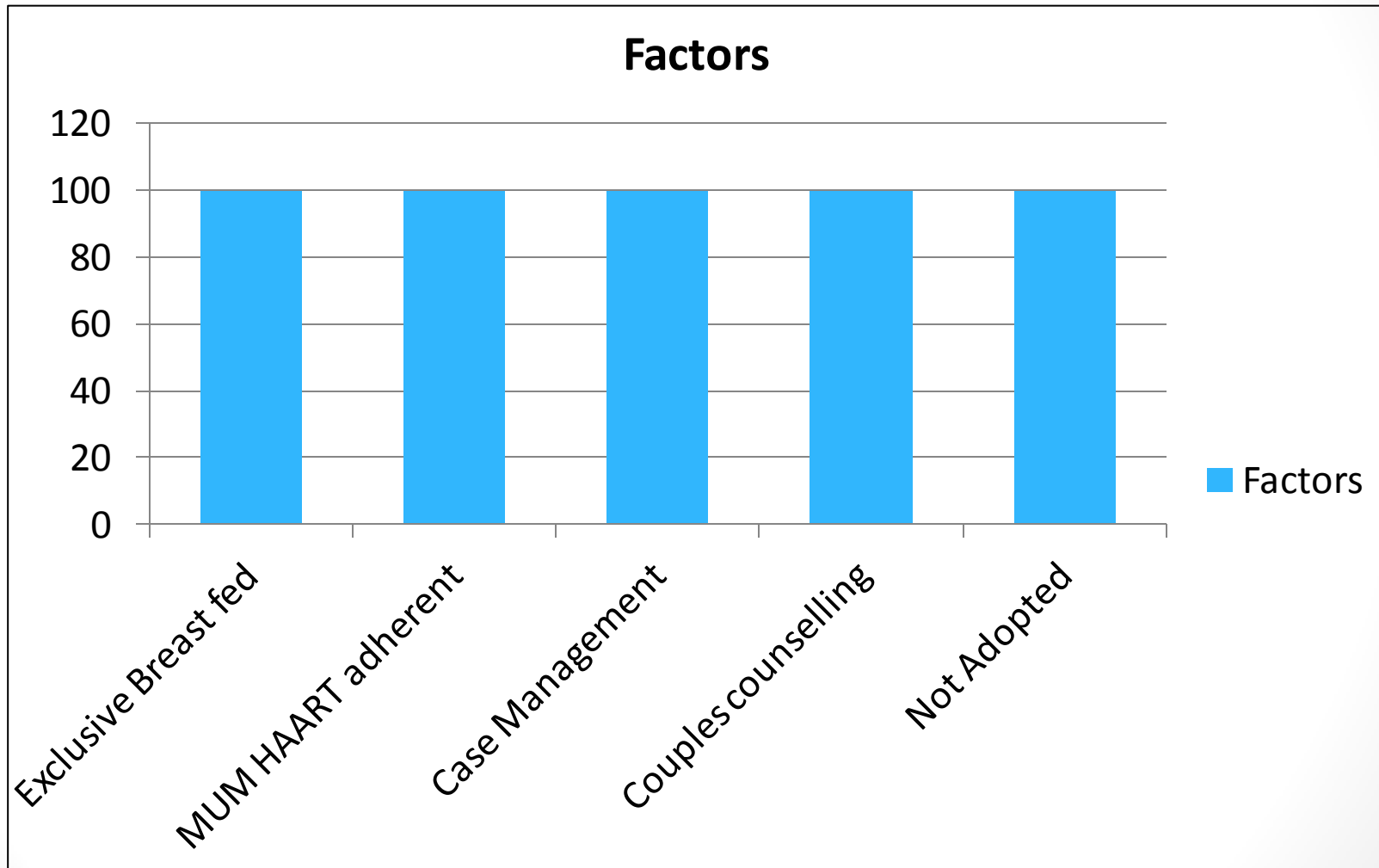
Results- EID and RDT HIV

	<u>Results</u>	<u>6-8 Weeks</u>	<u>6-8 months</u>	<u>18 months.</u>
<u>DBS -PCR</u>	Positive	36 /280	12 / 244	
	Negative	244 /280	232/244	
<u>Prevalence.</u>		14%	4.9 %	
<u>RDT HIV</u>	Positive			10 / 232
	Negative.			222/ 232
<u>Prevalence.</u>				4.3 %

Results – Why Positive?

Factors at 6-8 weeks. (N = 36)	N=36	%
Adoption	7	19 %
Mixed Feeding	6	17 %
Tribal / Environmental	3	8 %
HAART started < 4 weeks prior to delivery.	20	56 %
Factors at 6 – 8 months	N = 12	%
Adoption	3	25 %
Mixed feeding	4	33.3%
Tribal / Environmental	2	16.7 %
Non adherent mum on treatment	3	25%
Factors at 18 months.	N = 7	%
Adoption	1	14%
Tribal / Environment	3	43 %
Non adherent mum on treatment.	3	43 %

Results – Why Negative?



Discussion

- ❑ Educated up to high school level (70%).
- ❑ Urban dwellers tend to reside mostly in urban areas (60%:40%)
- ❑ **At birth** : BCG /Hep B (85%) and NVP (89 %)
- ❑ **Prophylaxis**: Zidovudine and Septrin (90%).
- ❑ **Feeding Options**: EBF (85%), artificial feeds (5%) and mixed feeding (10%)

Discussion-cont..

- Vaccination (90%).
- LTFU (10%)
- ANC prevalence is between 1.3 to 1.5% which is higher than the national prevalence.
- High EID rates at 6- 8 weeks at 14% reducing to 4% at 18 months.

Discussion-cont..

- **5 major factors that lead to positive rate were:**
 - Adoption
 - Mixed feeding
 - Environmental and tribal factors
 - Late HAART treatment during pregnancy.
 - Non adherence.
- **5 major factors that lead to negative outcomes were:**
 - EBF
 - Non adoption
 - HAART adherence
 - Couples counselling
 - Case management

Conclusion

- Awareness needs to be focussed on the primary and uneducated citizens in towns.
- Early HAART start at second trimester is vital. (WHO Recommendation and PNG National HIV guideline)
- Uninterrupted supply of immunisations and HAART is vital.
- Non adoption and exclusively breast feeding needs to be constantly advocated
- LTFU is of great importance.
- Case management of clients provide better outcomes.
- Finally the Goroka PPTCT programme has been a success
- Important asset for future training and visits by our team in PNG to roll out the PPTCT programme nationally.

Acknowledgement

- EHPHA Management.
- Dr Ilomo , Wandu and Dama – EHP Paediatricians.
- Dr Mond and Korowi.
- Paediatric Unit Goroka.
- CHAI Goroka and PNG.
- PPTCT Clients.

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