Health Worker Knowledge on Infant Feeding in the context of HIV infection in Enga Province

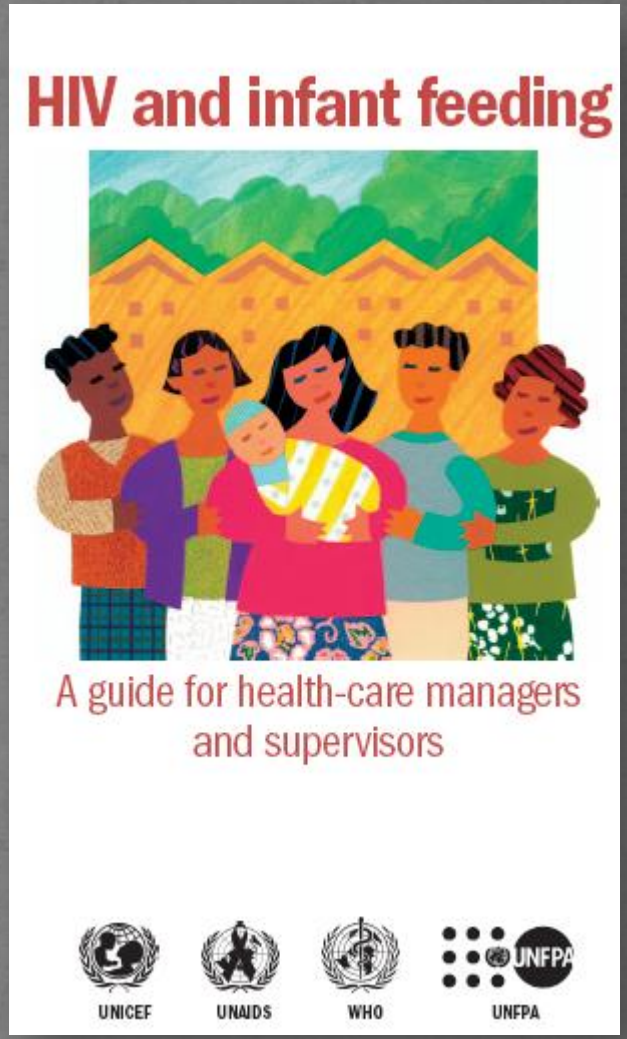
Dr. Rupert Marcus
Project in Diploma in Child Health
School of Medicine & Health Science _U.P.N.G.
Supervisor; Dr Panauwe

In Papua New Guinea, Enga Province has the highest prevalence of HIV among pregnant women(1.4%).

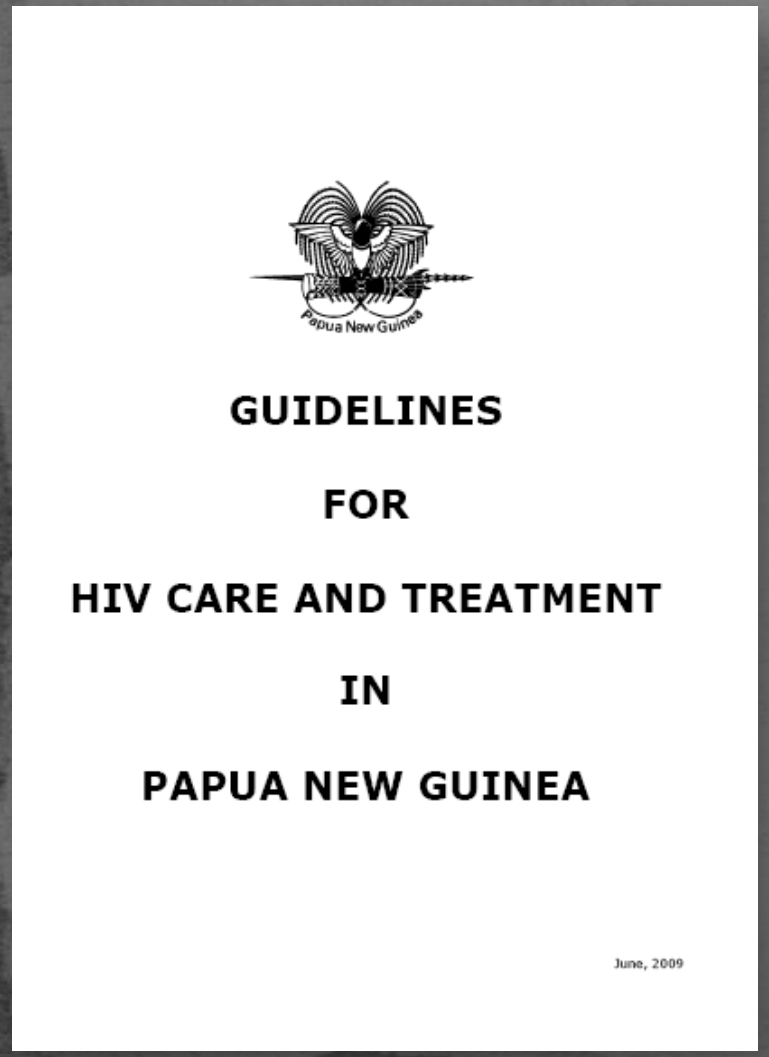
(NDoH, 2012)

BACKGROUND INFORMATION

- Risk of HIV transmission through breast milk as high as 15% *(Dunn, et. al. Lancet,1992)* to as low as 4% with interventions *(Jamieson, et. al. 2011)*
- Exclusive breast feeding (EBF) in first 6 months of life has lower risk of HIV transmission compared with mixed feeding.*(Iliff PJ, et al. 2005).*
- For resource poor countries, EBF for the first 6 months of life followed by complementary soft diet feeding after 6 months of age with continued breast feeding till at least 2 years provides the best chance for survival in children *(WHO,2003).*
- PNG has developed its guidelines on infant feeding in line with UNICEF, WHO and UNAIDS statements *(WHO, 1997)*



BACKGROUND INFORMATION



As per Guidelines for HIV Care and Treatment in Papua New Guinea *(NDoH, 2009).*

- Option 1: Exclusive and continued breastfeeding
- Option 2: Express and heat-treat breast milk
- Option 3: Breastfeeding by another woman
- Option 4: Artificial or replacement feeding from birth

BACKGROUND INFORMATION

- In PNG the practice of EBF in the first 6 months is low; 43.5% *(Friesen HVJ, et. al. 1998)* to 17% *(Kuzma, 2012)* .

- Key health care workers are not aware of up-to-date information relating to infant feeding, especially within the context of HIV *(Vallely et. al. 2013)*

RESEARCH QUESTION

- Are infant feeding practices among mothers in Enga unsafe such that it is important to have quality feeding advice available for them?

- Do health care workers engaged in child health in Enga Province posses adequate knowledge on infant feeding in the context of HIV infection?

RESEARCH WAS DONE IN 2 PARTS:

A. ASSESS THE KNOWLEDGE AND PRACTICES OF MOTHERS OF ENGA REGARDING INFANT FEEDING ESPECIALLY BREAST FEEDING.

B. ASSESS THE KNOWLEDGE OF HEALTH CARE WORKERS IN ENGA ON INFANT FEEDING IN THE CONTEXT OF HIV INFECTION.

A. KNOWLEDGE AND PRACTICES OF INFANT FEEDING AMONG MOTHERS IN ENGA PROVINCE.

Aim

Assess the knowledge and practice of infant feeding among mothers in Enga Province

Method

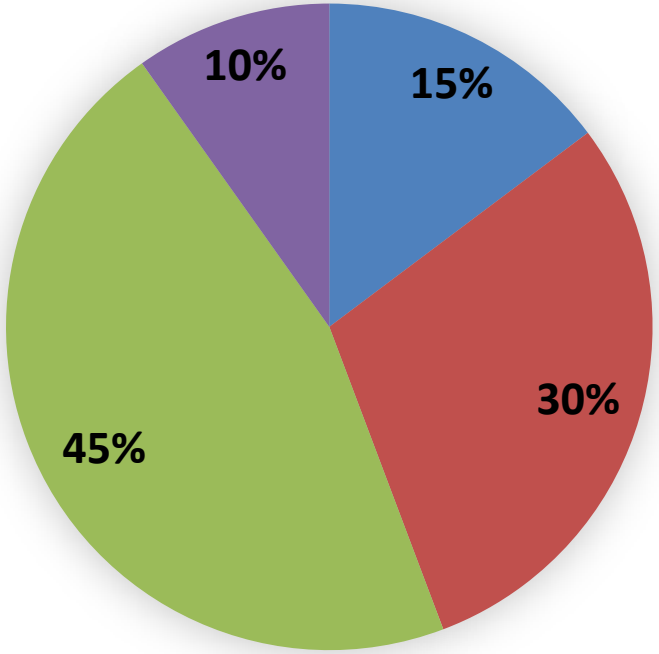
Study design:	Prospective descriptive study
Study period:	February to March 2015
Study site:	Enga Provincial Hospital
Recruitment of patients:	Convenience sample
	Structured questionnaire used after consent gained.
Analysis:	quantitative data entered into Epi info 7 statistics programme

RESULTS

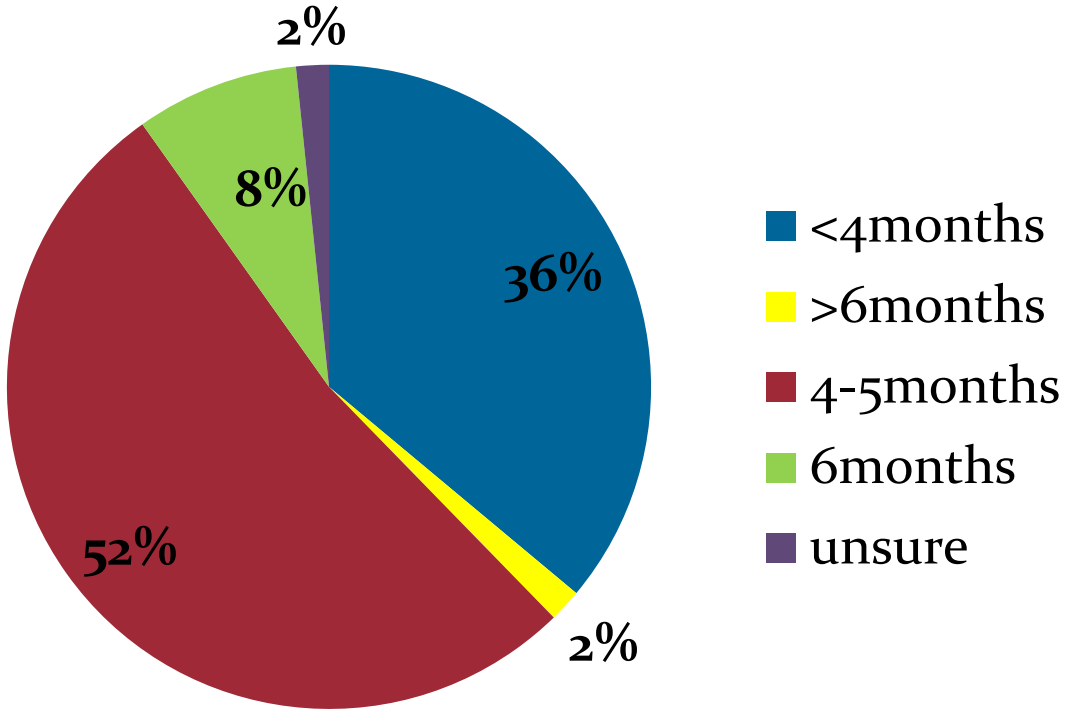
- A total of 62 mothers interviewed, median age of 28 years [IQR 25-32.5]
- Of the 62, 34% had >3 children and 66% had 2-3 children
- 50% of the mothers had no formal education
- More than 50% were from Wabag District
- HIV status: 27% negative, 5% positive and 68% unknown
- COLOSTRUM : 38% - bad (can make baby sick, dirty milk)
  : 24% - good
  : 38% - unsure
- Prelacteal feeds in 1.6% of mothers
- Infant formula/bottle feeding good 14.5%, bad 19.4%, unsure 66.1%
- Support with breast feeding; Yes 11.8%, No 88.2%

RESULTS

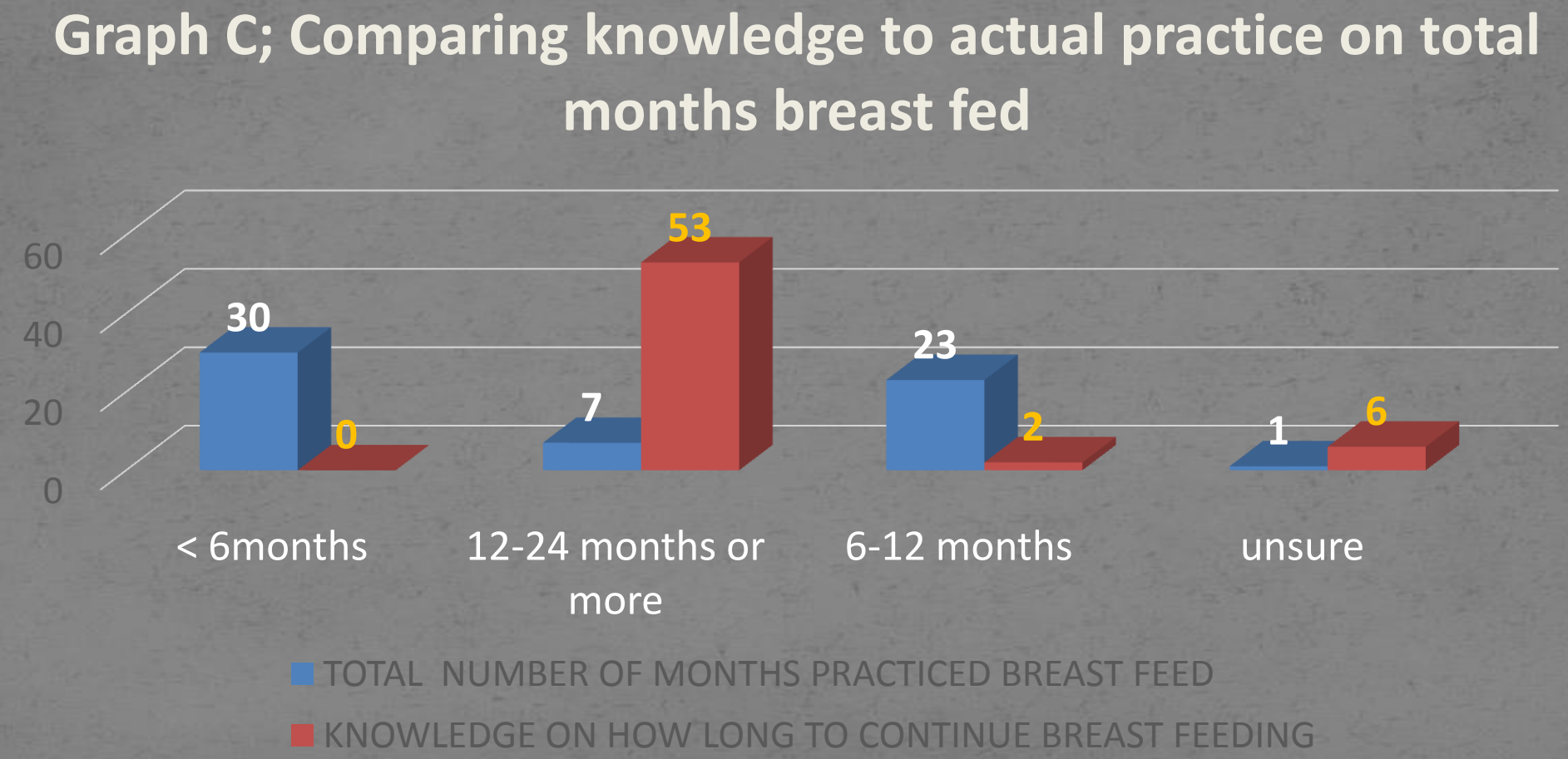
Graph A; KNOWLEDGE ON NUMBER OF MONTHS TO EXCLUSIVELY BREAST FEED



Graph B; TOTAL MONTHS PRACTICED EXCLUSIVE BREAST FEEDING



RESULTS


Graph C; Comparing knowledge to actual practice on total months breast fed
60
40
20
0
30
0
7
53
23
2
1
6
< 6months
12-24 months or more
6-12 months
unsure
TOTAL NUMBER OF MONTHS PRACTICED BREAST FEED
KNOWLEDGE ON HOW LONG TO CONTINUE BREAST FEEDING

RESULTS

- Exclusive breast feeding rates for this study group 8% (95%CI 2.7-18.1%)
- Of the 28 (45.9% (95% CI; 33.1-59.2%))mothers who knew that exclusive breast feeding should be 6 months, only 5(8.2%) practiced Exclusive Breast Feeding for 6 months (p. 0.0032)
- Only 10% continued breast feeding up to 2 years
- 53 (86.89% (95% CI; 75.8-94.2%)) mothers knew breast feeding should be continued up to 2 years yet in this same group only 11.3% (p. 0.0413) practiced breast feeding for this time.
- Breast feeding counselling was received in 13 (21% (95% CI 11.7-33.2%) of the mothers. 12/13 received counselling from health workers.

DISCUSSION

- The knowledge and practice of EBF for first 6 months and continued breast feeding up to 2 years is low.
- Significant discrepancy in knowledge and practice among mothers in this survey. Knowledge not translated into practice.
- Though the number of mothers who received any form of BF counselling is low, health workers appear to be an important source of counselling.

B. KNOWLEDGE OF HEALTH WORKERS IN ENGA ON INFANT FEEDING IN CONTEXT OF HIV INFECTION

OBJECTIVES.....to determine;

- Common advice given to HIV positive mothers on feeding their infants
- If recommended infant feeding advice for HIV positive mothers are being given by health workers in Enga
- The main source of health workers' knowledge on infant feeding in the context of HIV
- Information for developing policies on effective dissemination of national recommendations on infant feeding to health workers in the country.

Part B. KNOWLEDGE OF HEALTH WORKERS IN ENGA ON INFANT FEEDING IN CONTEXT OF HIV INFECTION

METHOD

- Prospective, descriptive study between May and July 2015
- Ethical clearance sought from Hospital/health centre administrator
- Two sites: 1: Enga Provincial Hospital (Government run)
  2: Yampu Catholic HC (Faith Based)
- Both operational and registered PPTCT sites with trained officers available
- Participants were health workers (O&G/Labor ward, MCH clinic ,CWD, COPD, Emergency department, HIV/STI Clinic, Administration)
- Convenience sampling to recruit participants
- Informed consent taken before interviews
- Structured questionnaire used during interviews

Part B. KNOWLEDGE OF HEALTH WORKERS IN ENGA ON INFANT FEEDING IN CONTEXT OF HIV INFECTION

METHOD

Primary Parameters assessed included:

1. Advise provided to care givers of HIV infected children regarding feeding options from time of birth up to 2 years specifically breast feeding.
2. Sources of information for Infant feeding knowledge in HIV context.
3. Options suggested by health worker as to how to improve dissemination of knowledge about infant feeding in HIV context.

- Responses to open ended questions entered through use of themes to allow entering of data.

Statistical analysis

Epi Info

P values <0.05 significant

Part B. KNOWLEDGE OF HEALTH WORKERS IN ENGA ON INFANT FEEDING IN CONTEXT OF HIV INFECTION

RESULTS

Participation	ENGA HOSPITAL	YAMPU HEALTH CENTRE
Labour ward	1	1
MCH Clinic	0	2
COPD	3	0
AOPD	2	1
ED	1	0
Children's Ward	4	0
HIV/STI Clinic	5	1
Administration	0	2
Subtotal	16	7
TOTAL	23	

SEX	Frequency	Percent
Female	16	69.57%
Male	7	30.43%
Total	23	100.00%

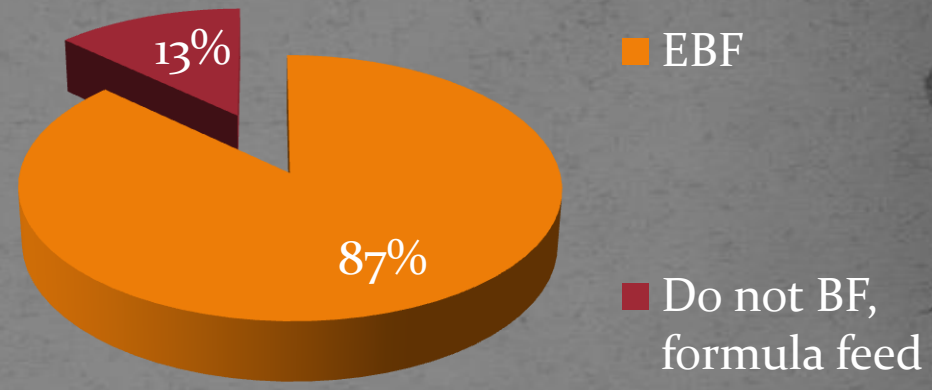
Mean age of participants

36.73 years (IQ range; 24-59)

Part B. KNOWLEDGE OF HEALTH WORKERS IN ENGA ON INFANT FEEDING IN CONTEXT OF HIV INFECTION

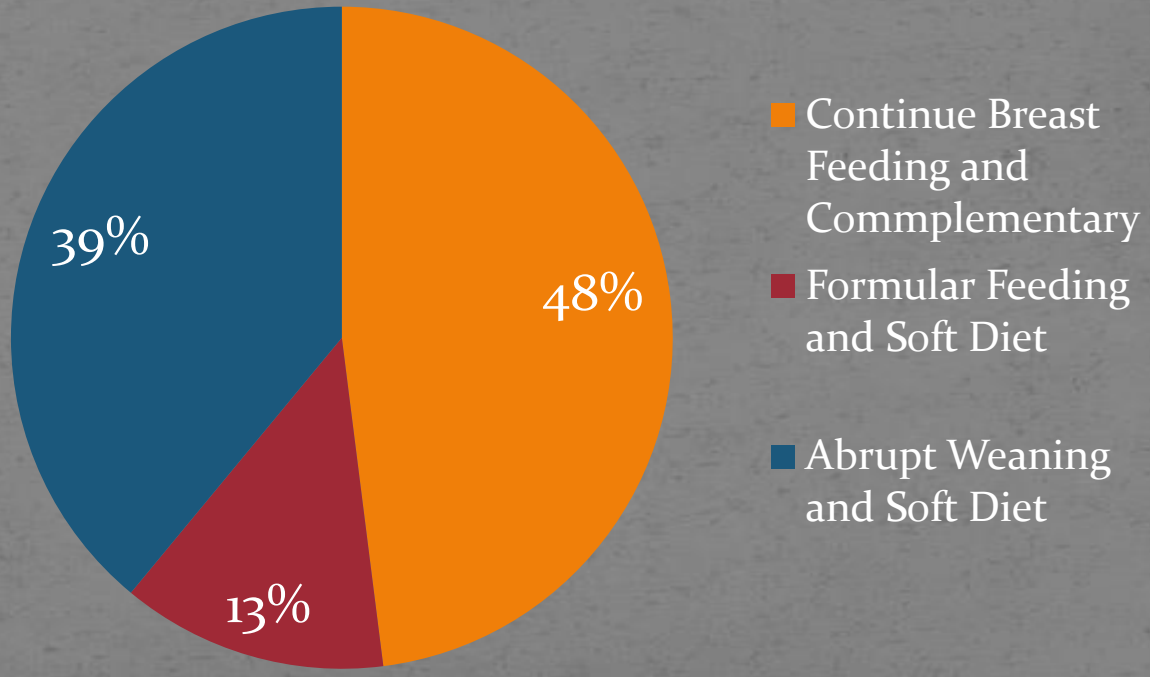
- RESULTS
  - Of those that advised EBF for first 6 months none mentioned either wet nursing or heat treated EBM as options available.

Graph D : Health workers advise on best feeding option in first 6 months of life in HIV exposed/infected child



RESULTS

Graph E: Advice given on Breast Feeding for HIV exposed/infected child >6 months old



Part B. KNOWLEDGE OF HEALTH WORKERS IN ENGA ON INFANT FEEDING IN CONTEXT OF HIV INFECTION

RESULTS

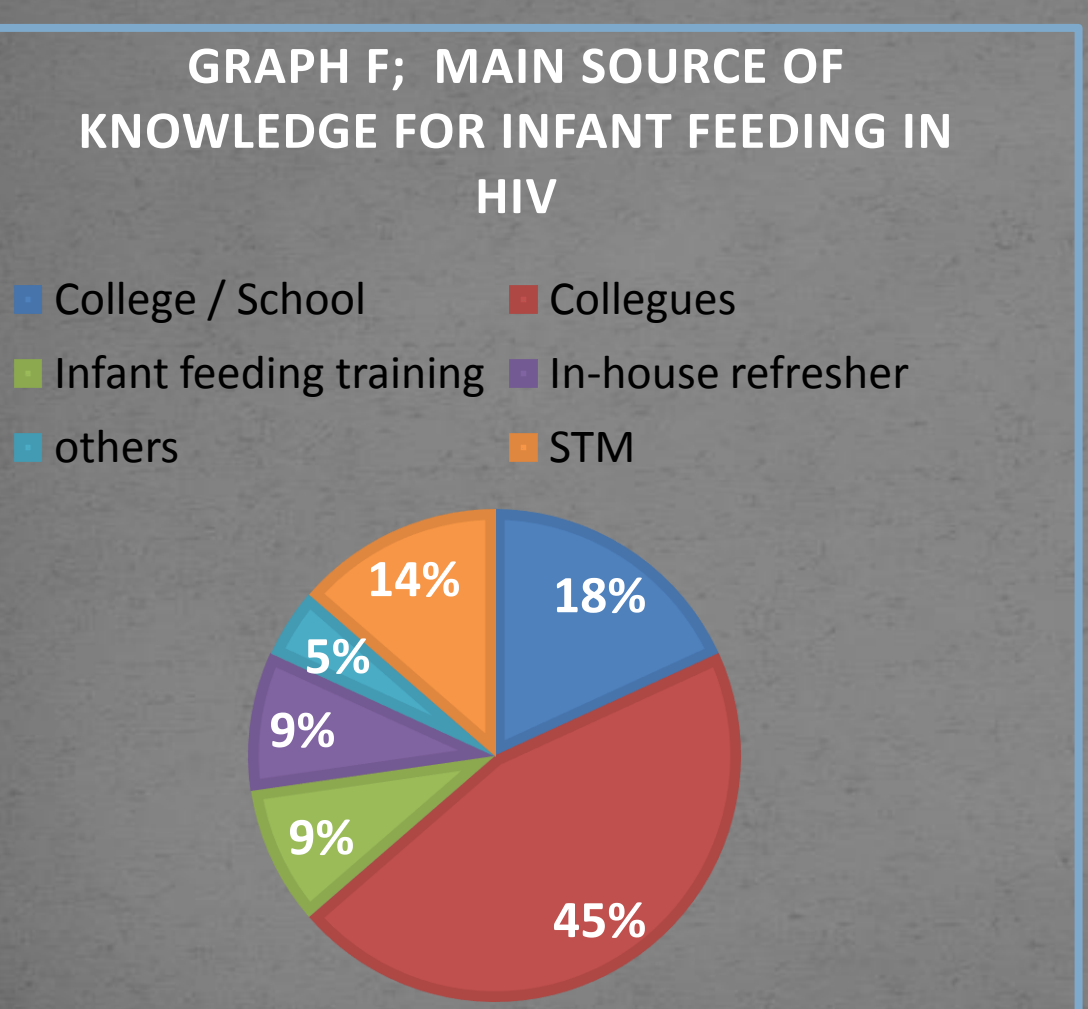
Table3 ; Associated Factors With Correct Advice Given

	Knew of Exclusive Breast Feeding in the first 6 months of life	Knew of complimentary feeding after 6 months with continued breast feeding	Knew that breast feeding should be continued up to the age of 2 years
Sex (M : F)	7:13 35% : 65% p. 0.227	4:7 36.4% : 63.6% p. 0.786	2:4 33.33% : 66.67% p. 0.544
Age (<30 : ≥30)	4:16 20% : 80% p. 0.539	2:9 18.18% : 81.82% p. 0.271	1:5 16.67% : 83.33% p. 0.252
Years of Service (≤3 years : >3 years)	4:16 20% : 80% p. 0.624	2:9 18.18% : 81.82% p. 0.78	2:4 33.33% : 66.67% p. 0.174
Facility (Enga Hosp : Yampu H/C)	15:5 75% : 25% p. 0.045	8:3 72.73% : 27.27% p. 0.333	6:0 100% : 0 % p. 0.009
Unit (HIV clinic : Not HIV clinic)	5:15 25% : 75% p. 0.002	4:7 36.4% : 63.6% p. 0.089	2:4 33.33% : 66.67% p. 0.017
Posters/STM available (Yes : No)	4:16 20% : 80% p. 0.331	5:6 45.45% : 54.55% p. 0.031	4:2 66.67% : 33.33% p. 0.032
PPTCT trained (Yes : No)	4:16 20% : 80% p. 0.331	4:7 36.4% : 63.6% p. 0.245	6:0 100% : 0% p. 0.064

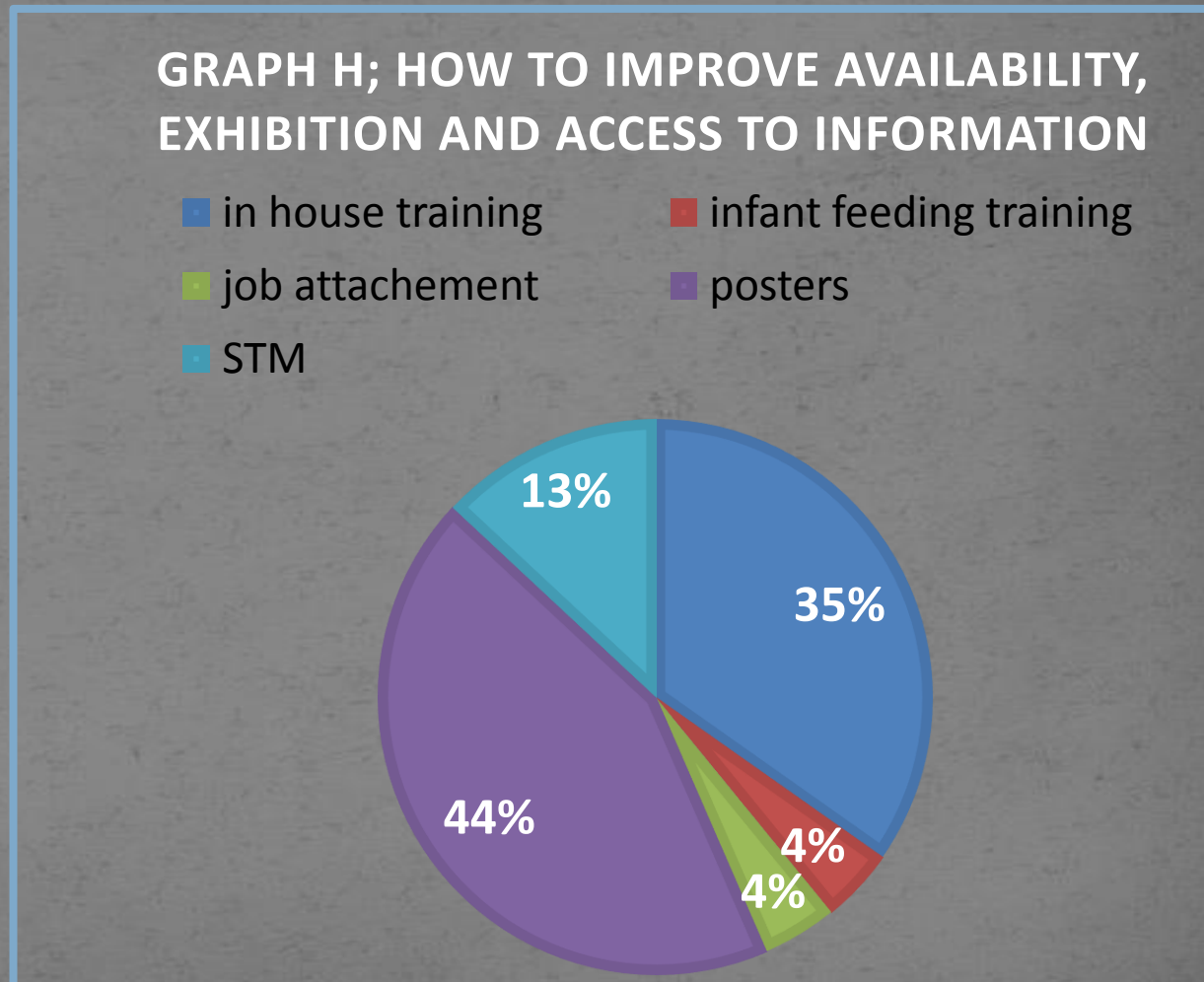
Part B. KNOWLEDGE OF HEALTH WORKERS IN ENGA ON INFANT FEEDING IN CONTEXT OF HIV INFECTION

RESULTS

GRAPH F; MAIN SOURCE OF KNOWLEDGE FOR INFANT FEEDING IN HIV



GRAPH H; HOW TO IMPROVE AVAILABILITY, EXHIBITION AND ACCESS TO INFORMATION



DISCUSSION

- Most health workers are knowledgeable in advising EBF in first 6 months to HIV infected women.
- Most of the health workers advised continued breast feeding after 6 months compared to other responses yet this was less than half the sample
- Recommended options of WET NURSING and HEAT TREATED EBM were not advocated by health workers to HIV infected mothers.
- In house refresher training and posters are advocated by the respondents as favourable tools for improving knowledge on infant feeding in the context of HIV

CONCLUSION

- Knowledge on infant feeding and the practice of infant feeding among Enga women is suboptimal.

- Knowledge on advising infant feeding among health workers in Enga province is fair with room for improvement

RECOMMENDATIONS

CLINICAL IMPLICATIONS

1. PPTCT training with emphasis on safe infant feeding training among health care workers in Enga is very much needed.

2. More importantly refresher training, in-house training and use of posters to update correct options for infant feeding in HIV

FUTURE STUDIES

This study repeated after health workers receive training/upskilling to assess their knowledge level again and also to assess which method of training is most effective.

References

1. *NDoH;* The 2010 STI,HIV,AIDS Annual Surveillance Report. Papua New Guinea Dethpartment of Health; 2012
2. Dunn, DT et. al. Risk of Human Immunodeficiency Virus Type 1 through breast feeding. *Lancet*, 1992. 340:585-8.
3. Jamiesen et al. Triple antiretriviral prophylaxis in preventing mother to child transmission through breast feeding. PloS Med 2011, 8(3)e1001015
4. Illif P J, et al. Exclusive Breast Feeding reduces the risk of post natal HIV-1 transmission and increases HIV-free survival. AIDS 2005,19(7)699-708.

Acknowledgements

- Dr Doreen Panauwe
- Prof. Trevor Duke
- Dr. Henry Welch
- Staff of Enga Provincial Hospital and Yampu Health Centre
- Mothers of Enga Province