Factors associated with the success or failure of PPTCT program in HIV exposed children of Mt Hagen General Hospital.

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AIM

Identify factors associated with the success or failure of PPTCT program in HIV exposed children of Mt Hagen General Hospital.

BACKGROUND

- WHP general burden of HIV in 2010. Out of 12, 098 tested, 733 were positive. Prevalence rate of 6.1 %. *(1)*
- Therefore a high rate of vertical transmission is expected.
- The "Prevention of parent to child transmission of HIV" (PPTCT) program was first drafted in 2009. *(2)*
- 3rd pillar of the PPTCT program is: **Preventing HIV transmission during pregnancy, childbirth and breast feeding periods.** *(2)*
- Commenced at Mt Hagen Hospital in 2011. *(2)*
- To date 138 Children have graduated from the program as HIV free with a success rate of 25%.

BACKGROUND

- Vertical transmission – commonest mode of transmission of HIV to children;

1) Before birth – transplacental
2) During delivery
3) After birth, through breast milk *(3)*

- Therefore this study was designed to Identify factors associated with the success or failure of PPTCT program in HIV exposed children of Mt Hagen General Hospital

METHODS

- Study Design: Retrospective descriptive study
- Study Time: January 2014 – May 2015
- Study population/setting
- ✓ Mt Hagen General Hospital
- ✓ All HIV exposed babies (Rapid test and DBS/PCR – DNA positive) presenting/referred to PPTCT clinic (Paediatric HIV clinic).
- ✓ Aged 0 – 6 weeks
- ✓ Convenience sampling

METHODS

- Data collection method

✓ Data taken from PPTCT clinic records and labour ward records.

✓ HIV positivity based on DBS/PCR – DNA positive – 6 weeks old

- Inclusion criteria –
  - Any child HIV exposed
  - Any child less than 6 weeks old

- Exclusion criteria –
  - Any child with no DBS/PCR results or results pending

- Data entry into Microsoft excel & data analysis with SPSS 20

Factors analysed

- Socio-demographic factors – age, residential status, province of origin, marital status etc.
- Antenatal status – booked or unbooked
- HIV status – whether PLWHIV, detected during pregnancy and when
- ART status and compliance of both parents and child

RESULTS

Total number of babies who attended PPTCT clinic: **251**

Total number of babies with known 6/52 DBS/PCR results: **169**

Total number of patients with missing/pending results: **82** (Excluded)

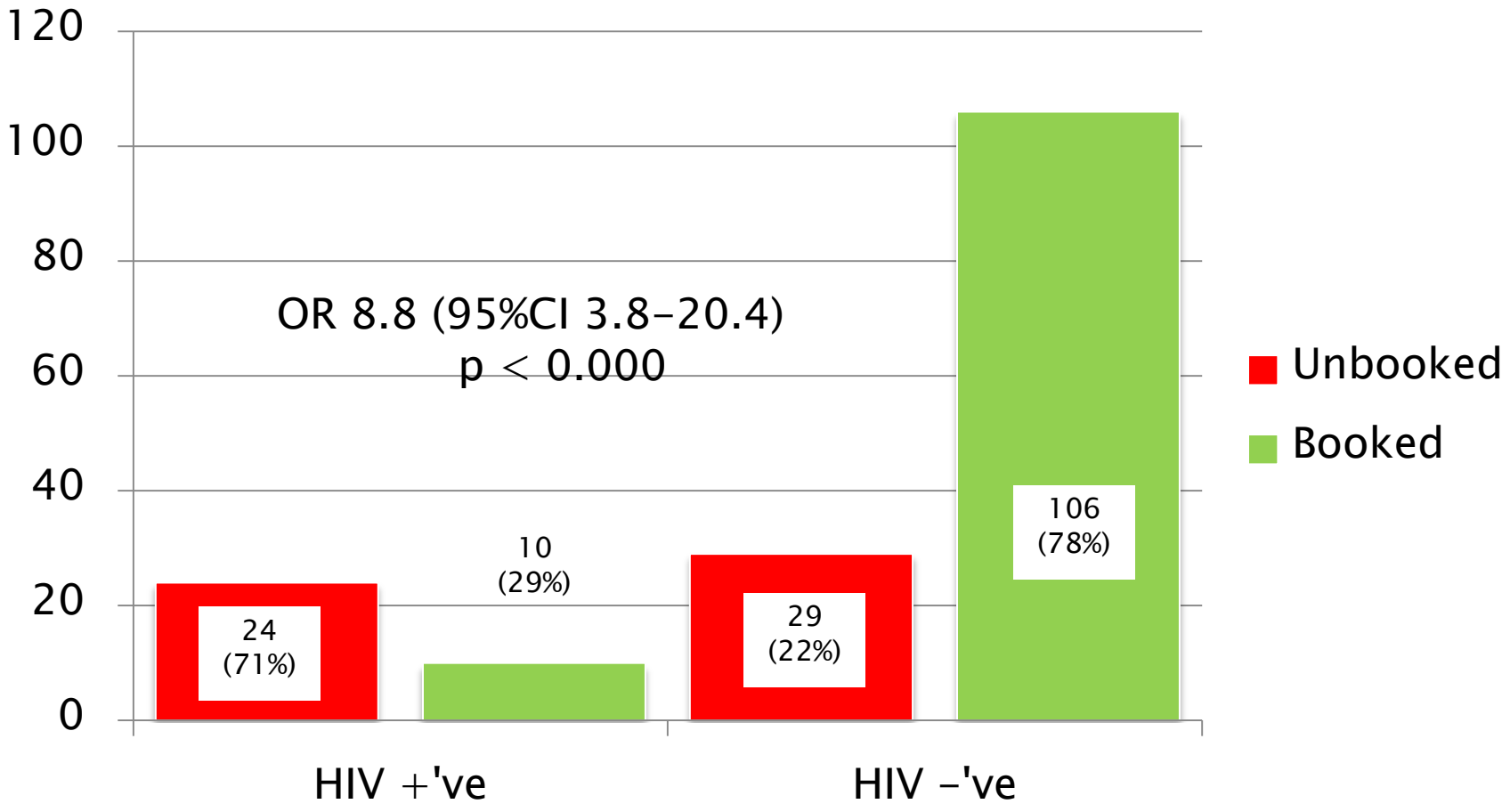
Total HIV Positive:
34/169 (20 %)

Total HIV Negative:
135/169 (80 %)

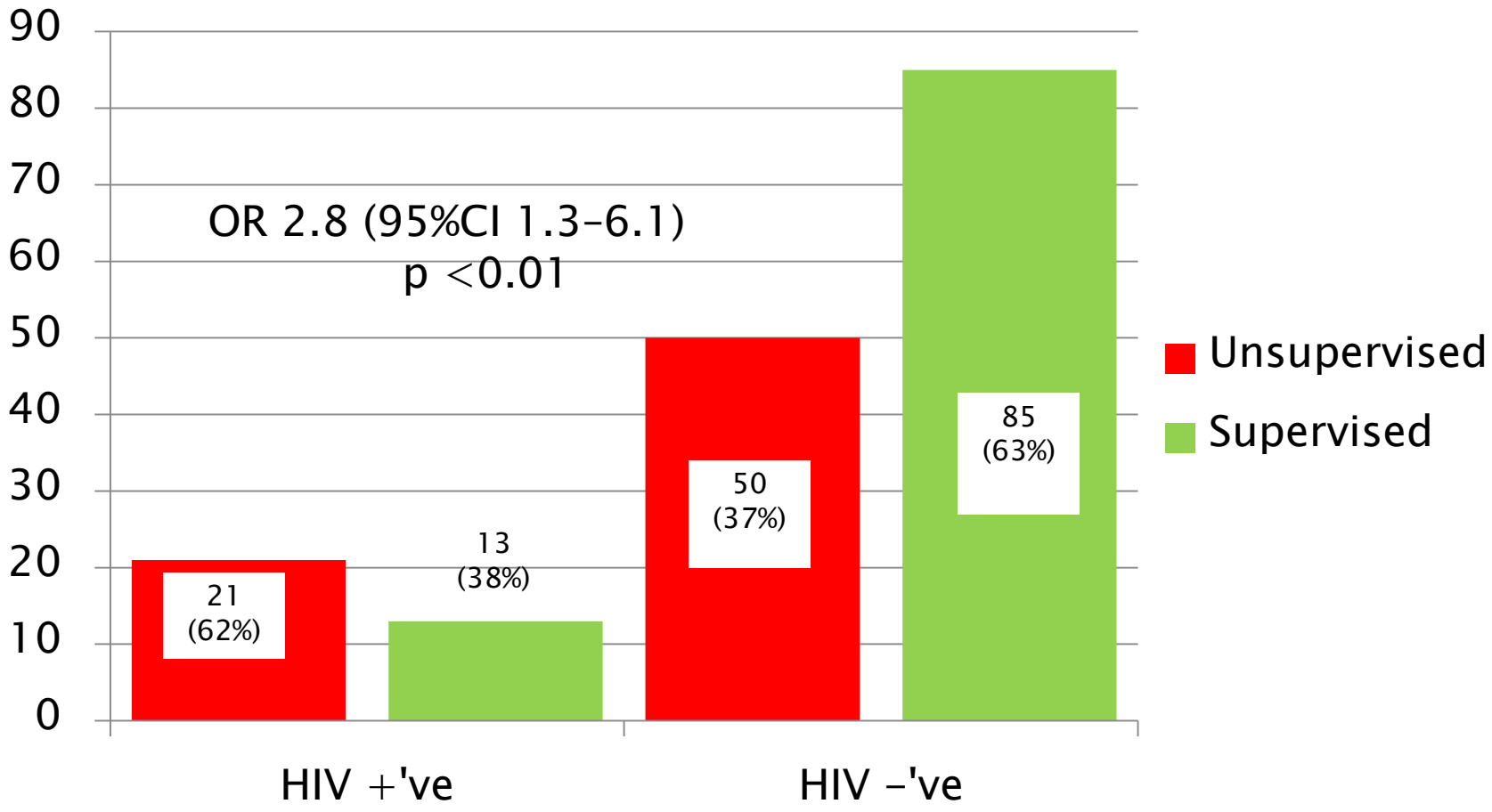
Factors significantly associated with PPTCT outcome

	HIV +ve		HIV -ve			
Factors	No(total)	%	No(total)	%	OR (95%CI)	p
Unbooked antenatal clinic	24 (34)	71	29 (135)	22	8.8 (3.8-20.4)	0.00
People living with HIV (PLWHIV) on ART	1 (34)	3	54 (135)	40	22.0 (2.9-165.7)	0.00
Mum not on ART	21 (34)	62	10 (135)	7	8.3 (4.3-16.0)	0.00
Mum not compliant with ART	7 (13)	54	1 (125)	0.8	106 (11.2 -1008)	0.00
Unsupervised delivery	21 (34)	62	50 (135)	37	2.8 (1.3-6.1)	0.01
Dad not on ART	32 (34)	94	39 (135)	29	3.3 (2.5 -4.3)	0.00
Baby not on ART	26 (34)	77	22 (135)	16	16.7 (6.7 - 41.7)	0.00
Baby non- compliance ART	5 (8)	63	113 (113)	100		

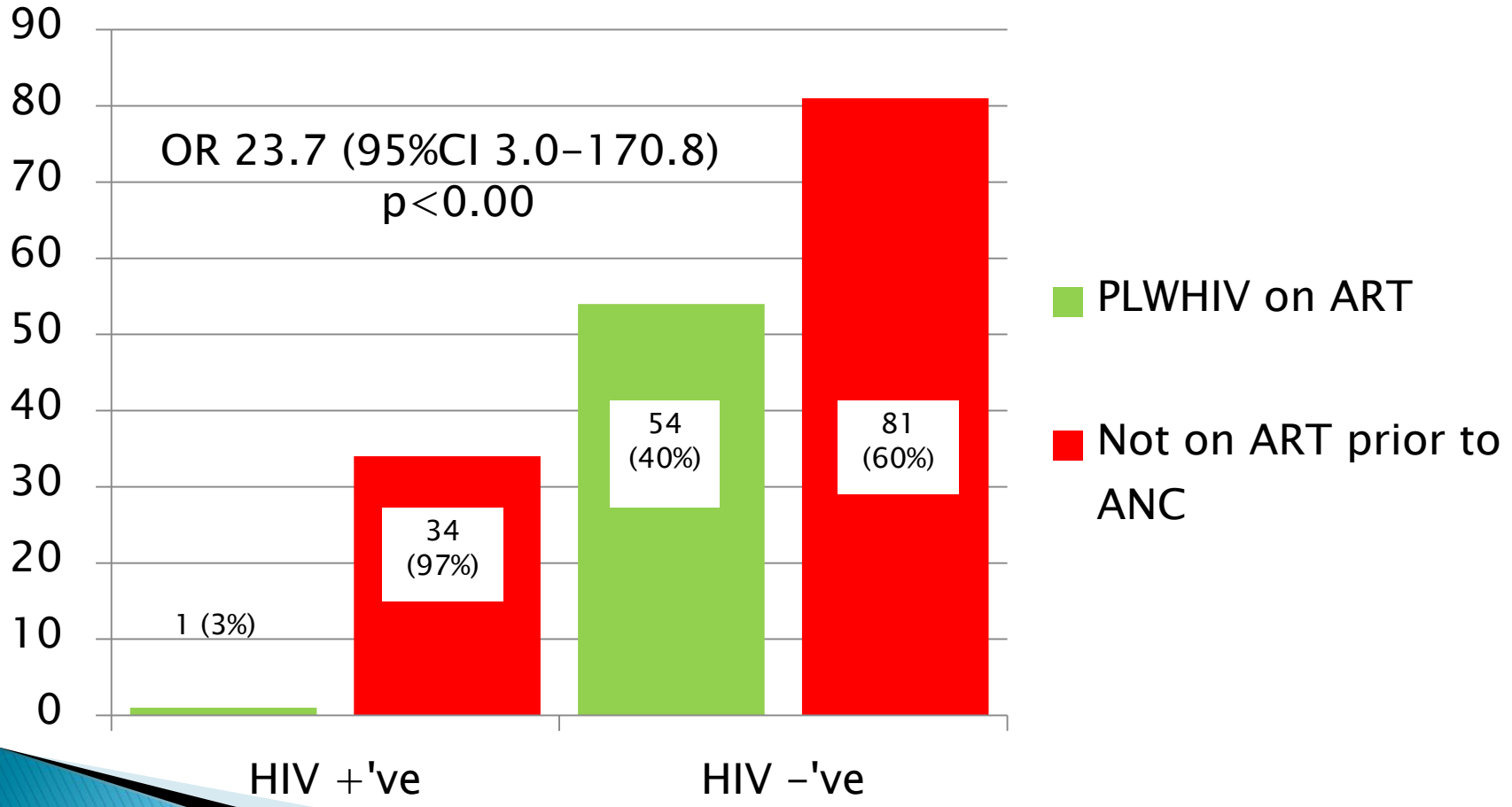
Antenatal status of mothers



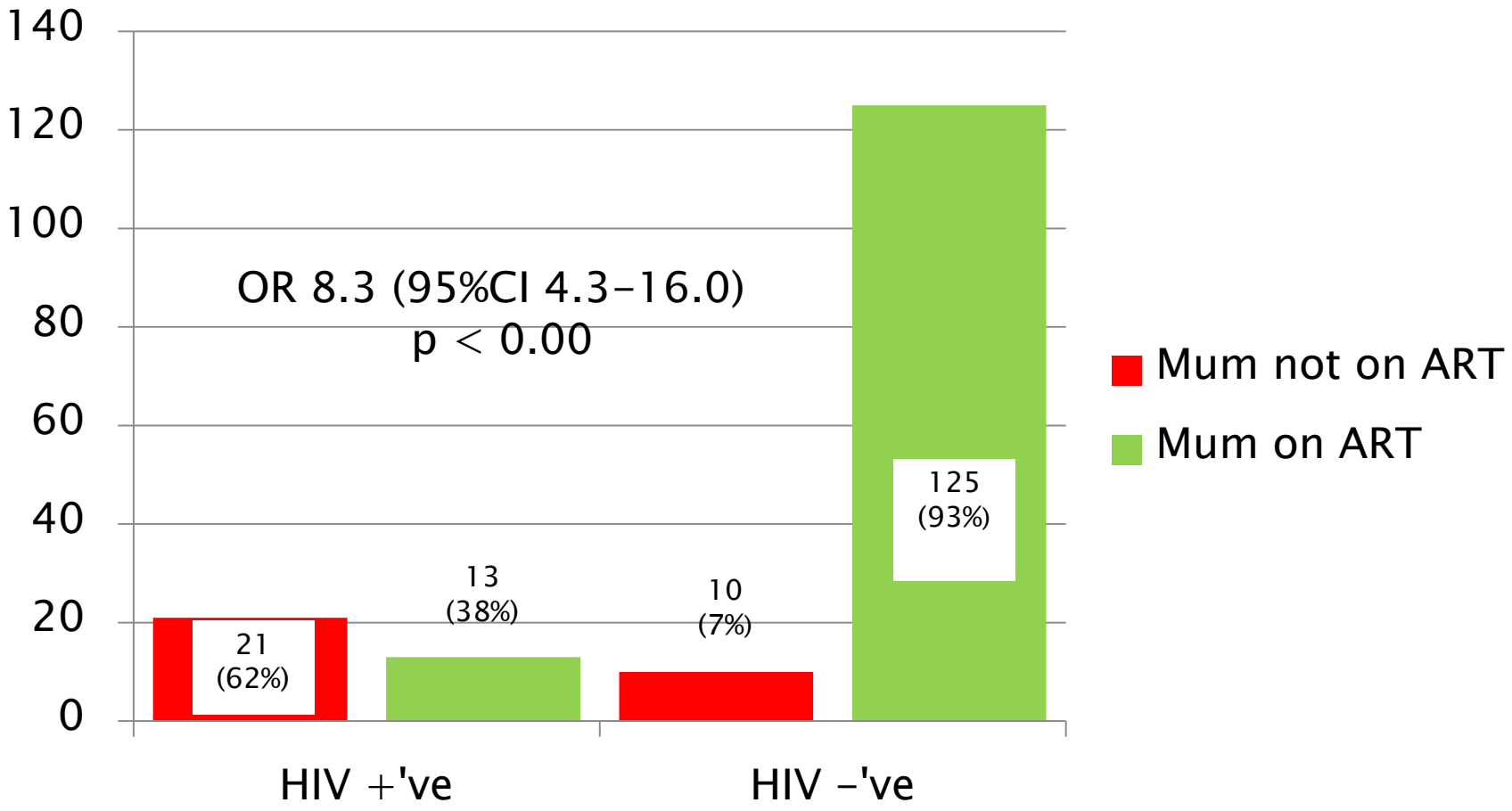
Unsupervised delivery



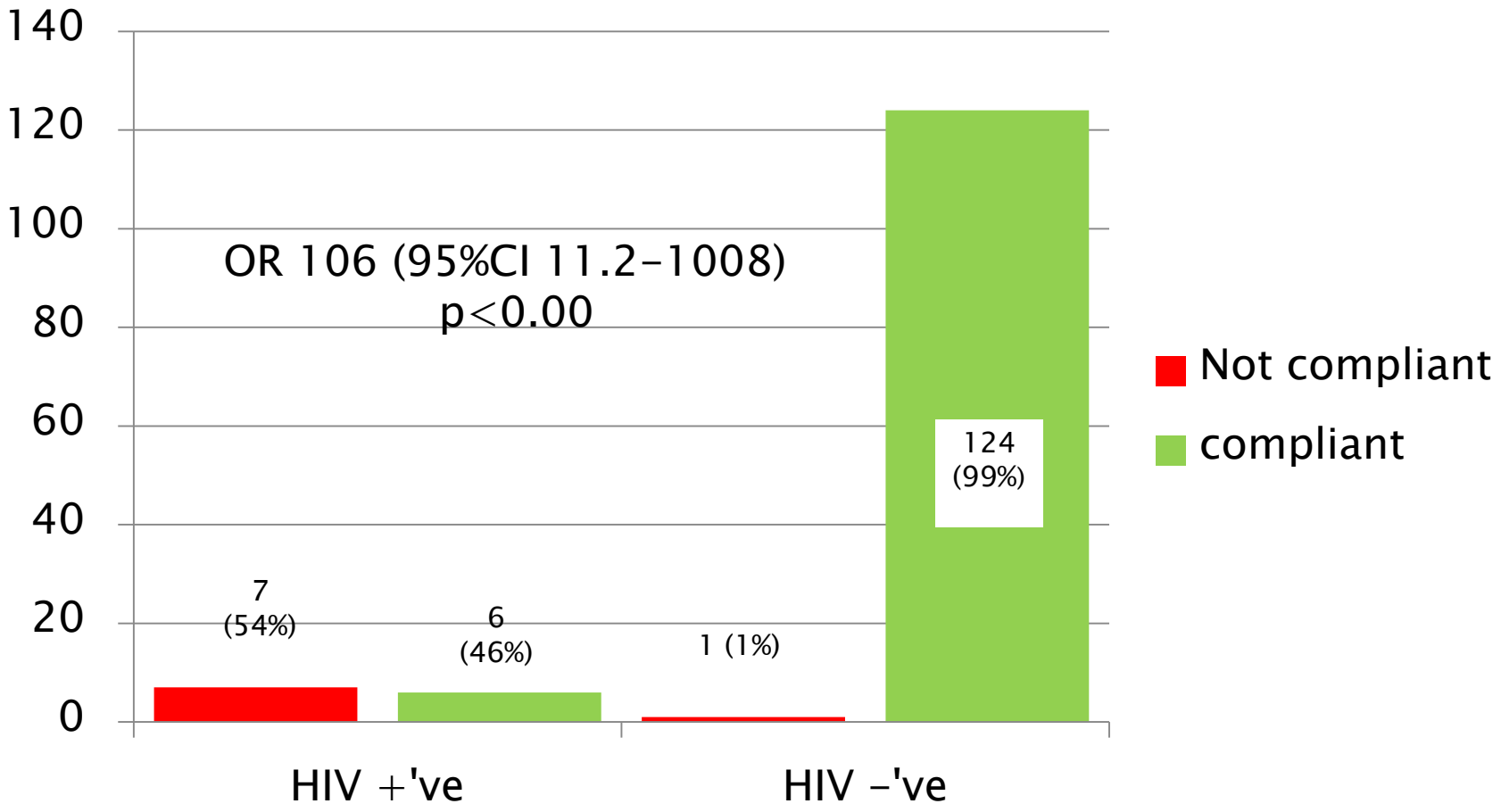
People living with HIV (PLWHIV) on ART



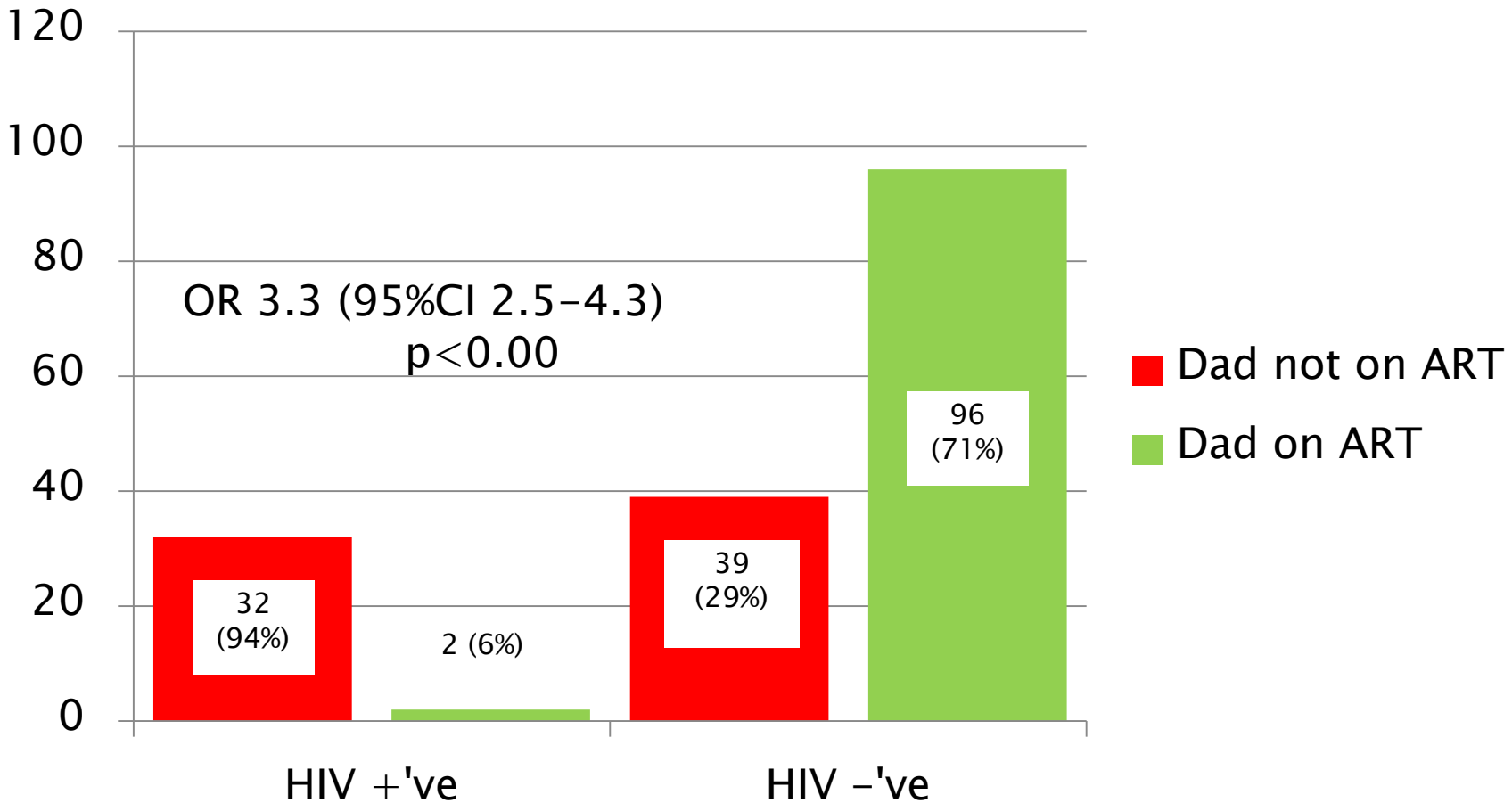
Mum not on ART



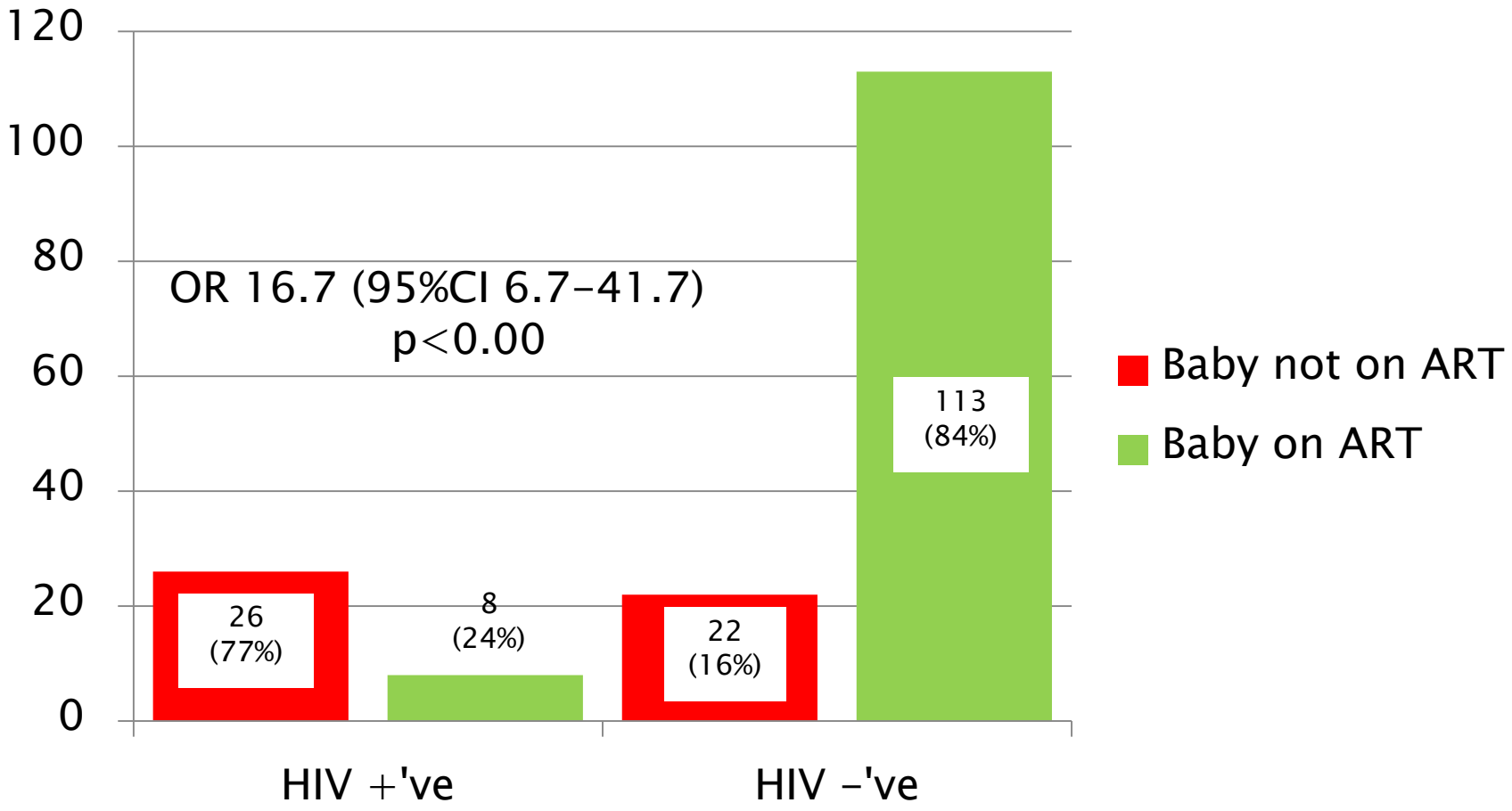
Mum not compliant with ART



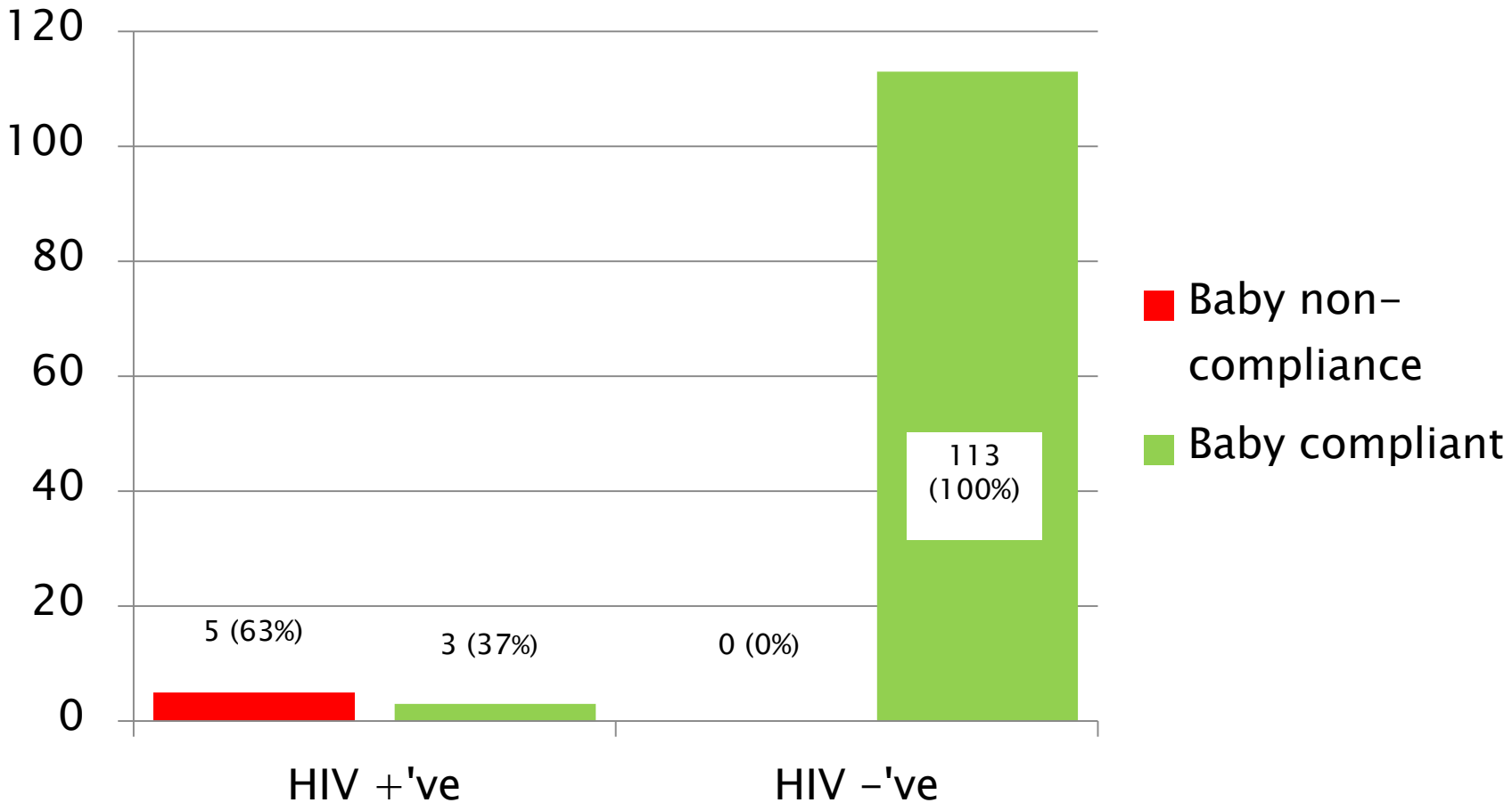
Dad not on ART



Baby not on ART



Baby non compliance to ART



Other non significant associations

- **Age of mother**
- Marital status
- Residential status (rural /settlement/urban)
- Distance from hospital

RESULTS

The factors associated with the 80% success rate were that booked mothers received early antenatal care, father's were also on ART and both spouses were compliant to their treatment. Mothers had supervised deliveries and infants were commenced on ART as soon as possible after birth.

DISCUSSION

- PPTCT of HIV important strategy to achieving Zero new parent to child transmission.
- Similar study done in Nigeria showed that the rate of HIV transmission from mother to child after PMCT was 2.8% *(5)*
- The most important variable found was that being on ART increased their chances of becoming HIV free.
- Voluntary counselling test sites and antenatal clinics vital in identifying HIV mothers.
- The antenatal coverage, WHP 2012 was 63% and there are currently 8 ANC testing sites in the province *(6)*
- 36 VCT and 2 ART sites in WHP.
- Therefore in order to prevent mother to child transmission of HIV, the ANC and VCT sites need to be increased.

DISCUSSION

- Limiting factors for this study were;

- Unavailability and delay of some DBS/PCR HIV results

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- Labour ward sisters
- Special care nursery sisters
- Paediatric ward 6A sisters

REFERENCE

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WHPHA & CHAI
WELCOMES YOU TO THE
5th BABY GRADUATION
OF 38 HIV NEGATIVE
BABIES DISCHARGED..
ON 25th JUNE 2015...

Thank You