The prevalence and Management of Maternal Syphilis in the Free State, South Africa

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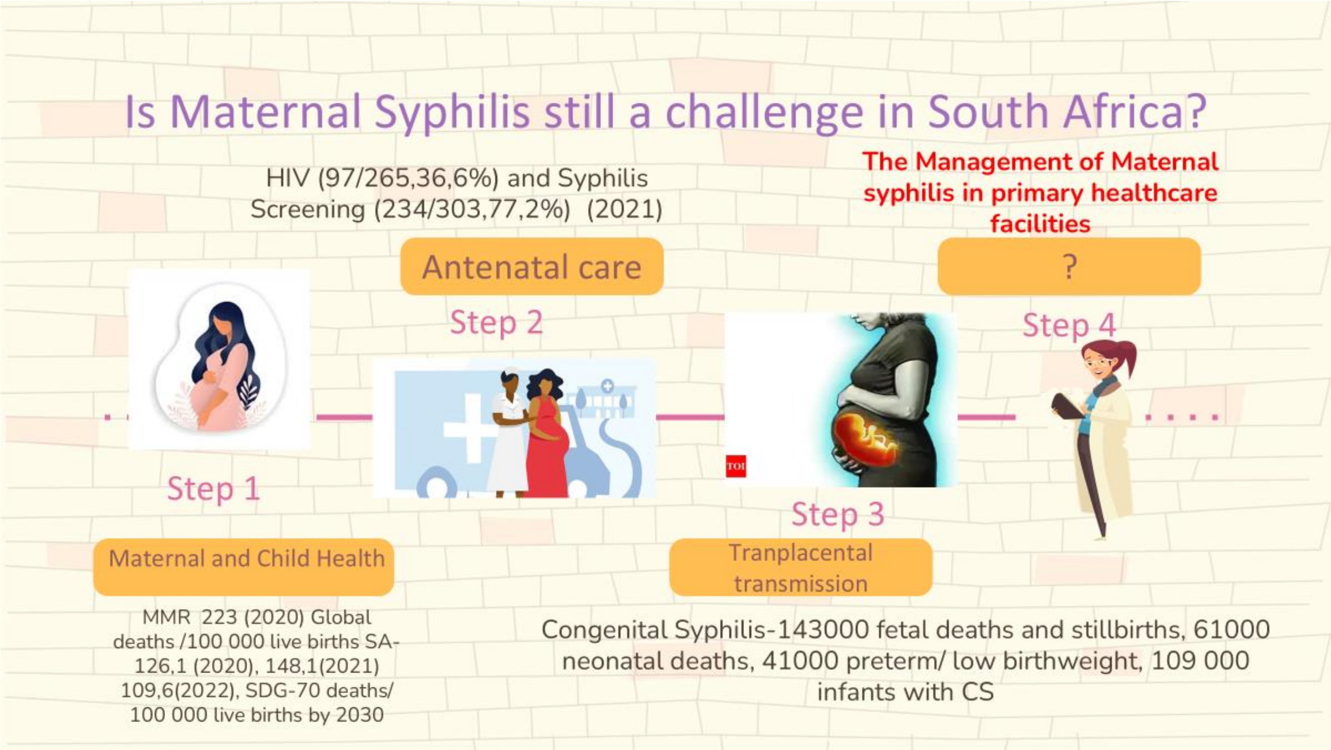
BACKGROUND



Is Maternal Syphilis still a challenge in South Africa?
HIV (97/265,36,6%) and Syphilis Screening (234/303,77,2%) (2021)
The Management of Maternal syphilis in primary healthcare facilities
Antenatal care
?
Step 2
Step 4
TOI
Step 1
Step 3
Maternal and Child Health
Tranplacental transmission
MMR 223 (2020) Global deaths /100 000 live births SA-126,1 (2020), 148,1(2021) 109,6(2022), SDG-70 deaths/ 100 000 live births by 2030
Congenital Syphilis-143000 fetal deaths and stillbirths, 61000 neonatal deaths, 41000 preterm/ low birthweight, 109 000 infants with CS

BACKGROUND

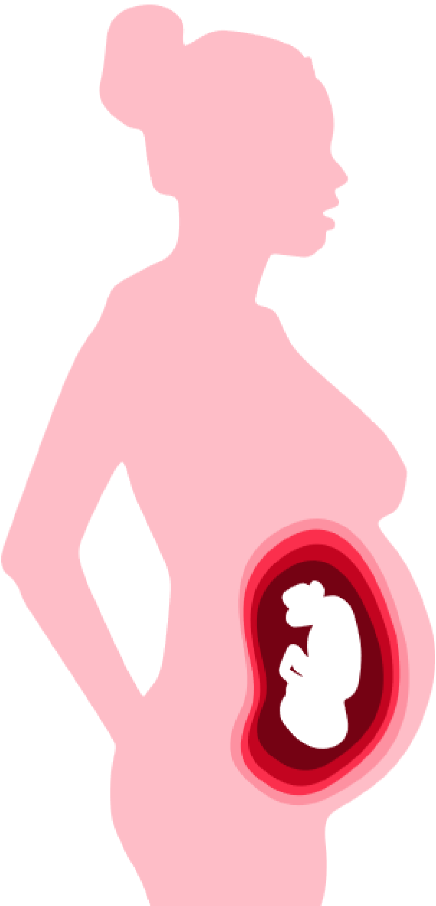
- Syphilis-*Treponema Pallidum* transmitted sexually/vertically from mother to child during pregnancy
- WHO -8 Million infection globally, highest in SSA (2022)
- 90% of all syphilis cases occur in LMICs
- 2,6% of maternal syphilis cases in SA (2022)
- Known risk factor is HIV
- 2022 HIV prevalence was 25,3% in pregnant women (SA)
- Co-infection of maternal HIV and syphilis -1,6% in SA

BACKGROUND

- **50–90% of pregnant women with syphilis will transmit the infection to their unborn child**

- **Congenital syphilis-198/100 000 live births (2023)**

- **Adverse birth outcomes**
  - **-stillbirths**
  - **-preterm or low birthweight**
  - **-early neonatal deaths**
  - **-congenital infections**



AIM

To assess the management of syphilis at two primary healthcare clinics in the Free State Province of SA

OBJECTIVE

To determine the prevalence of Maternal Syphilis in primary Health care facilities.

OBJECTIVE

To assess the diagnostic methods used to test for syphilis during pregnancy.

OBJECTIVE

To evaluate the guidelines used by midwives in the management of maternal syphilis

Methods

Study Population

Maternal records of Pregnant women

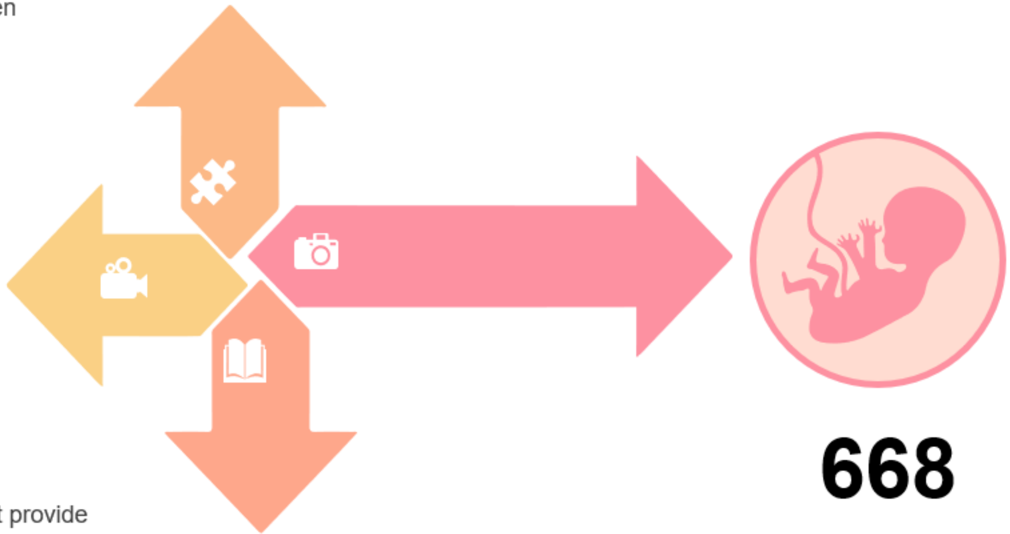
Study period: January 2020-June 2023

Study Design

Cross sectional, retrospective, descriptive study .

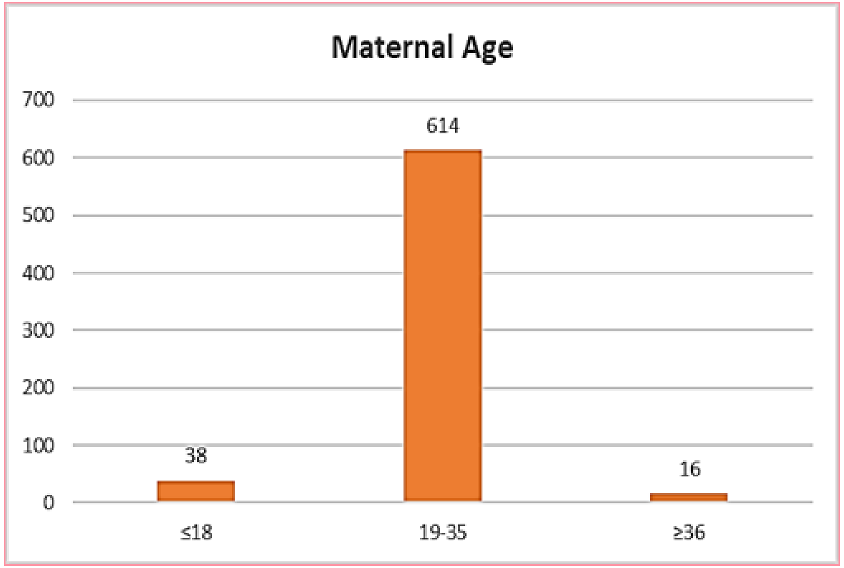
Study Sites

Two community Health centers that provide primary Health care services.

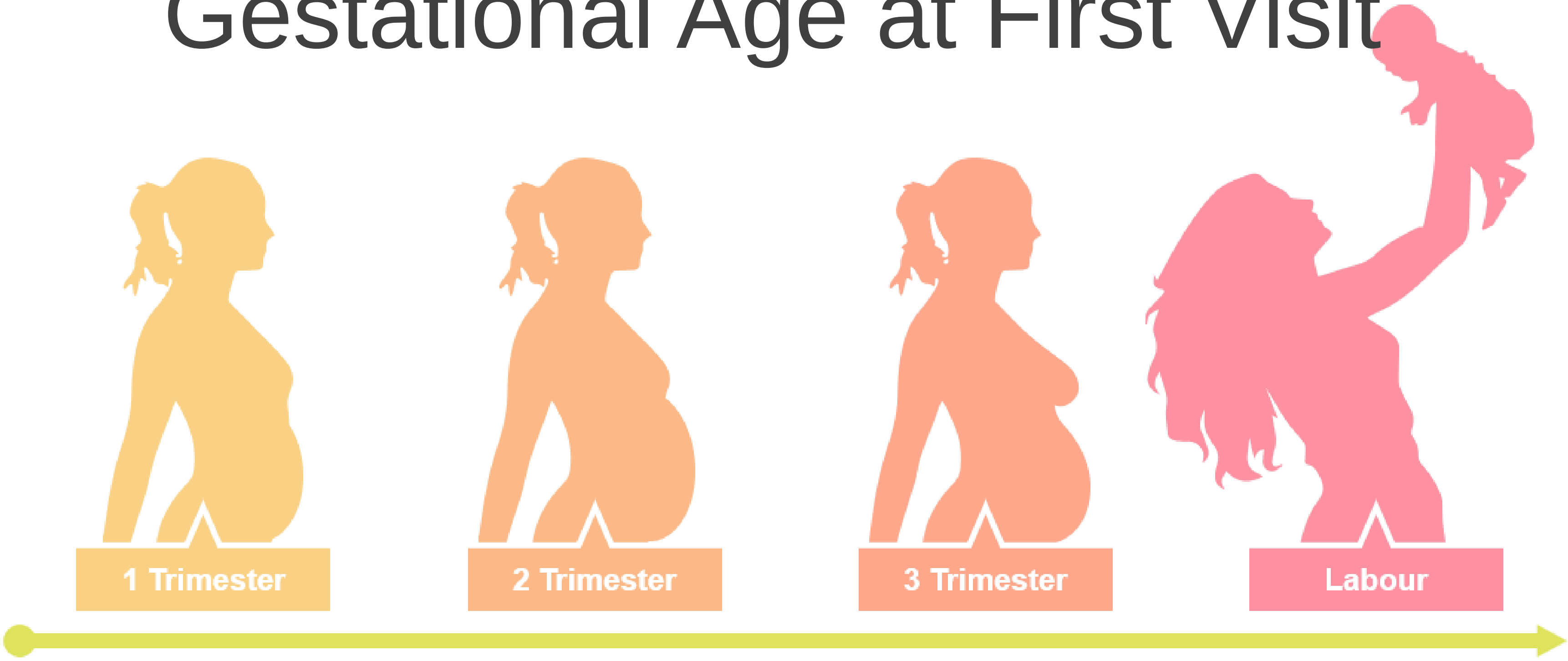


Results

Maternal Age



Gestational Age at First Visit



43 (6,4%) | 471 (70,5%) | 150 (22,5%) | 4 (0,6%)

Initial Syphilis Testing

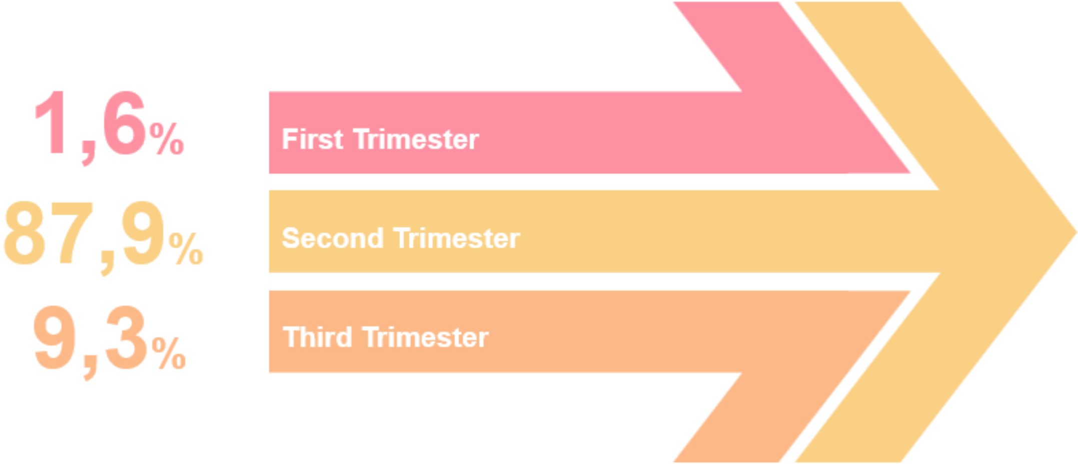
Of the 668 women in the study, 660 (98.8%) were tested for syphilis

Mono Rapid Plasmin Reagin Test

647 (96,9%).

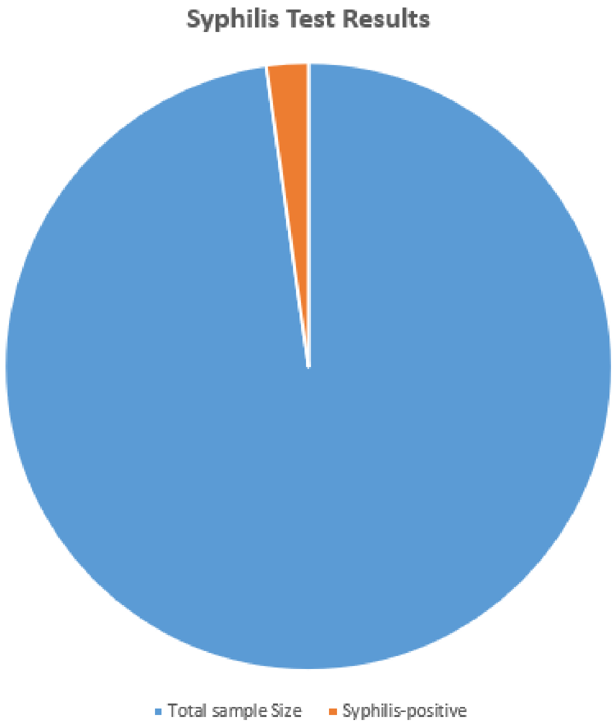
RPR TITRES

3 (1,9%)



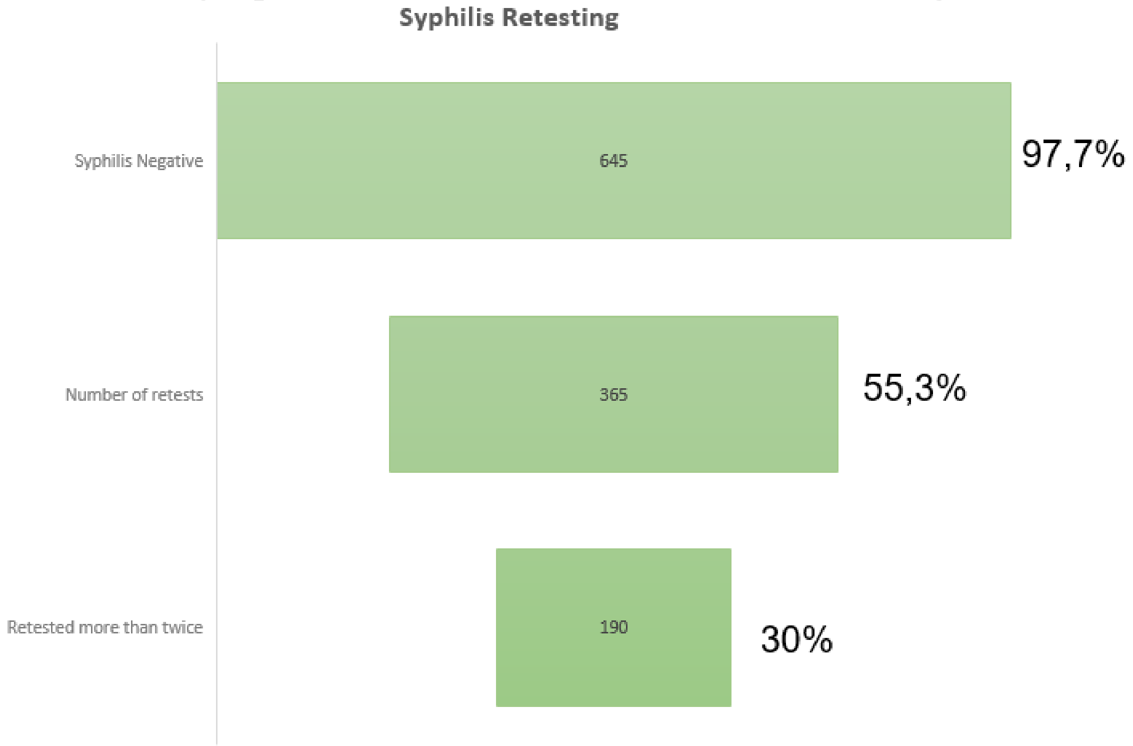
Treponema pallidum haemagluttination assay (TPHA)

1 (0,6%).


Syphilis Test Results
Total sample Size
Syphilis-positive

15/660=2,3%

Syphilis Retesting



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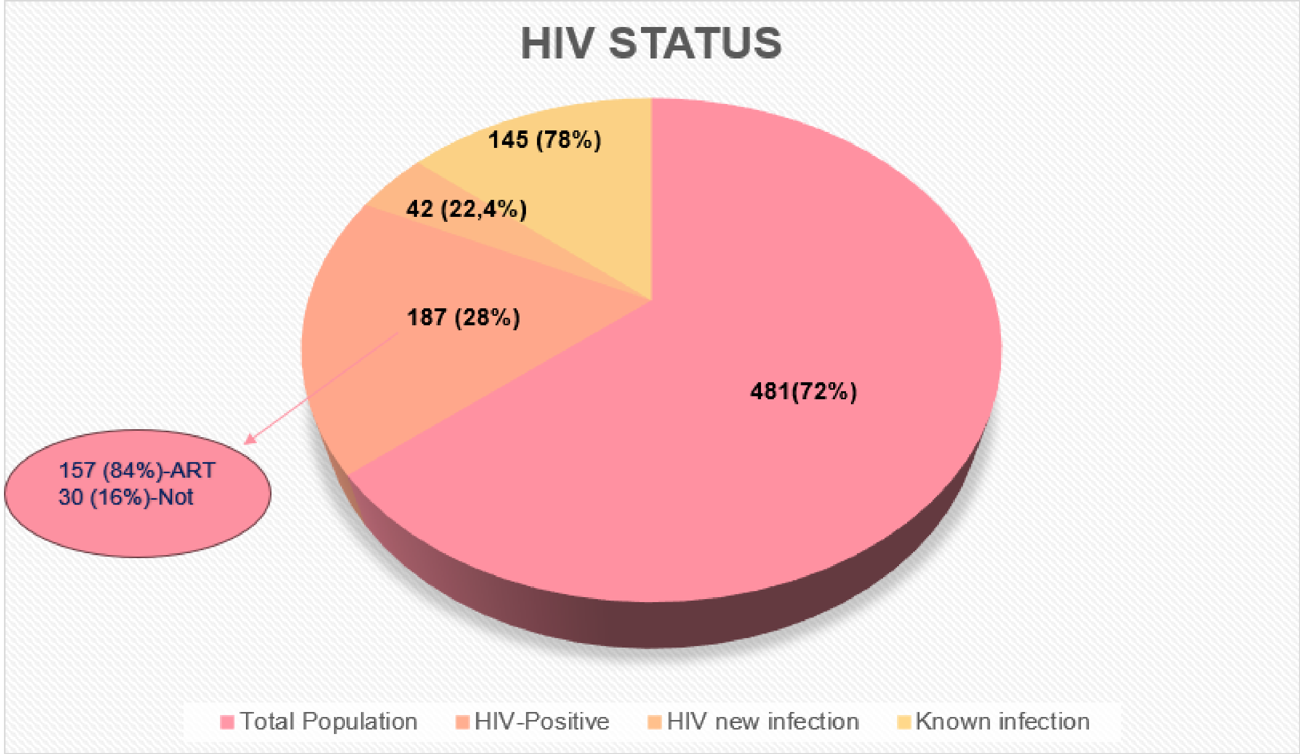
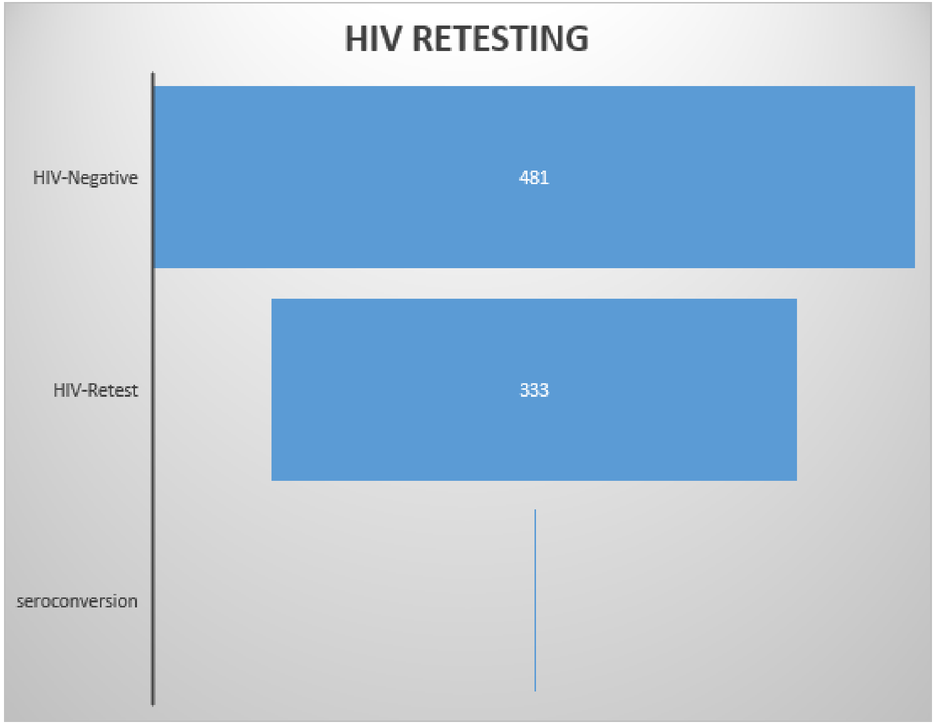
HIV (n=668)


HIV STATUS
145 (78%)
42 (22,4%)
187 (28%)
481(72%)
157 (84%)-ART
30 (16%)-Not
Total Population
HIV-Positive
HIV new infection
Known infection

HIV Retesting

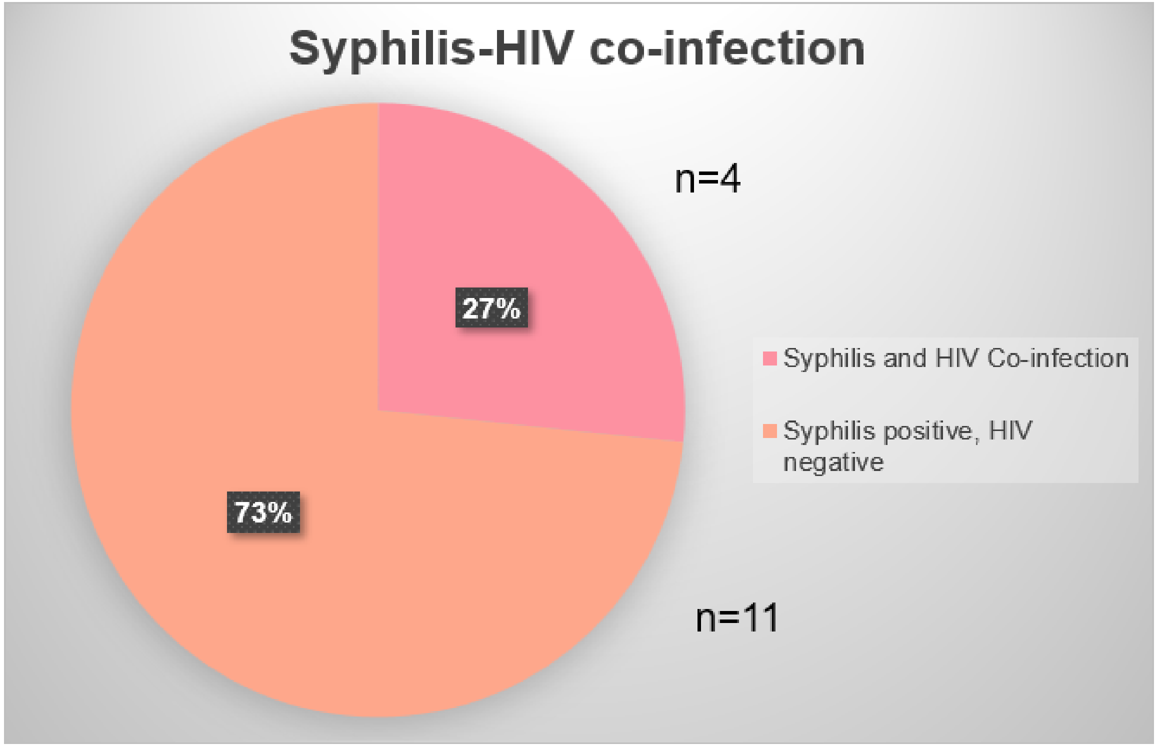


72%

69%

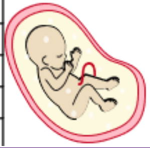
0,15%

Syphilis-HIV Co-infection



Syphilis Treatment

Gestational age at which Syphilis treatment was initiated (n=15)	Frequency	Percentage (%)
First trimester	7	46.7
Second trimester	6	40
Third trimester	1	6.7
Not treated	1	6.7
Was there a delay in treatment?		
Yes	3	20
No	11	73.3
Treatment of syphilis infected (penicillin doses) before delivery		
One dose	1	6.6
Two doses	1	6.6
Three doses	12	80
Was penicillin given 28 days before childbirth		
Yes	14	93.3
No	1	6.6
Were there any allergic reactions to penicillin		
Yes	0	0
No	14	93.3
Follow-up treatment		
Yes	6	40
No	9	60
Test done following treatment		
RPR Titres	5	33.3
Treponemal	1	6.6
Intervals at which tests were done following treatment		
6 weeks	3	20
12 weeks	2	13.3
Unknown	1	6.3



Baby outcome

Baby outcomes	Frequency	Percentage (%)
Baby weight		
1000-1499g	1	0.1
1500-2499g	43	6.4
>2500g	624	93.4
Congenital Abnormalities		
Dysmorphic	1	0.1
Abdomen hepatosplenomegaly	1	0.1

Conclusion

The **prevalence of MS** at the study sites was **2.3% from 2020 to 2023**. About 44.7% of the women that tested negative for syphilis were not retested during the antenatal period, and three women with syphilis did not receive complete treatment. Incomplete treatment of the mothers' results in complications in syphilis exposed neonates. **There is an urgent need for *continuing training* for the nurses and midwives on antenatal screening and treatment protocols for MS at primary healthcare settings in the Free State Province.**

Recommendations

- **Frequent monitoring** to ensure that the midwives and nurses are following the guidelines for syphilis testing.
- **Syphilis retesting** for women who tested negative should be done regularly at different gestational ages and before delivery.
- Nurses and midwives should receive **training on syphilis**
- The health facility management and district clinical specialists should perform **regular audits** to ensure availability of sufficient testing kits and treatment.

- **Awareness of other sexually transmitted diseases** besides HIV should be emphasised among all pregnant women.
- **Education on the importance of early antenatal CARE** as soon as the first menstrual period is missed to avoid late diagnosis of diseases that could lead to complications.

Khaliq OP, Jassen A, Tabane NE, Moodley J. Prevalence and management of syphilis at primary healthcare level in the Free State, South Africa. S Afr J Infect Dis. 2025 May 31;40(1):724. doi: 10.4102/sajid.v40i1.724. PMID: 40469626; PMCID: PMC12135762.

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