



## **An Assessment of the impact of Sexually Transmitted Infection in Matepatepa farms in Bindura District, Mashonaland Central Province.**

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### **ABSTRACT**

Sexually transmitted infections (STIs) remain a significant public health concern globally, with far-reaching consequences for individuals, communities, and the economy. Matepatepa farm in Bindura District, Mashonaland Central Province, Zimbabwe, is a high-risk area for STI transmission due to its mobile population, socioeconomic factors, lack of knowledge, and limited access to healthcare services. This study aims to investigate the prevalence and incidence of STIs among the population in Matepatepa farm, Bindura District. This paper sought to quantify the extent of the STI problem in the area, providing a foundation for further analysis and recommendations. This study aimed to identify the socio-economic, behavioral, and environmental factors contributing to the transmission of STIs in Matepatepa farm. This aim aims to uncover the underlying causes of STI transmission, including factors such as poverty, migration, lack of education, and inadequate healthcare services. This evaluation aims to inform the development of targeted interventions and policies to reduce the transmission of STIs and improve the health and well-being of the population in Matepatepa farm. This study sought to translate the research findings into practical recommendations for stakeholders, including healthcare providers, policymakers, and community leaders, to address the STI epidemic in the area. The study used a number of data collection tools like questionnaire, observation checklist and focus group discussion so as to get a comprehensive information and to come out with recommendations of the study. The snow balling as a data collection method was used since it was suitable for the study and participants are not easy to find. As part of the findings, there were a total of 70 participants who completed the questionnaire, with a response rate of 80%. The study included 40% males and 60% females. The age range of participants was 14-25 years, with a mean age of 21.5 years. Findings from this study highlighted the need for urgent action to address the high burden of STIs in Matepatepa farm. Recommendations included improving access to STI testing and treatment, enhancing STI prevention and education, and promoting condom use by distributing them to their places so that everyone will get access. Additionally, strengthening healthcare infrastructure, partnering with community leaders, and implementing behavioral change communication interventions were identified to be crucial. Regular STI surveillance is also essential to monitor trends and patterns of STI and here are some of recommendations that can be implemented health education about the STIs, promote condom use and distribution and enhance community engagement and participation.

### **Background**

Matepatepa farms are in Mashonaland province in Bindura District along Matepatepa road. People in Matepatepa they speak ChiShona and English but this area is characterized by a number of farms where people stay in groups in one place. There are some activities done in this area which include farming activities they grew tobacco as a source of income, they also practice gold panning which is also a source of money for survival. This area is characterized by a number of early marriages and early pregnancies as well that were reported to health facility (Foothills clinic and Tarlington clinic). Sexually transmitted infections (STIs) remain a significant public health concern globally, with an estimated 376 million new cases reported in 2016 (World Health Organization, 2019). STIs have severe health consequences, including infertility, pregnancy complications, and increased risk of HIV transmission (James et al., 2020). In Zimbabwe, STIs are a major health problem, with high prevalence rates reported among young people and vulnerable populations (Ministry of Health and Child Care, 2019). Several studies have investigated the prevalence and determinants of STIs in Zimbabwe. For instance, a study conducted in Harare found that the prevalence of chlamydia and gonorrhea was 12.3% and 6.5%, respectively, among women attending antenatal care clinics (Mungati et al., 2018). Another study conducted in Bulawayo found that the prevalence of herpes simplex virus type 2 (HSV-2) was 45.6% among women aged 15-49 years (Ncube et al., 2017). In order to fulfill the sustainable development goal number 3 of good health and well-being by the year 2030 the MoHCC came up with interventions to make. The main objective of this study is to assess the prevalence and determinants of STIs among the population in Matepatepa farm, Bindura District, and to identify the challenges and barriers to STI prevention and control in the area.

### **Research Objectives**

The research aims to address the following objectives:

1. To determine the prevalence of STIs among the population in Matepatepa farm, Bindura District.
2. To identify the socio-economic, behavioral, and environmental factors contributing to the transmission of STIs.
3. To assess the knowledge, attitudes, and practices of the population in Matepatepa farm regarding STIs and their prevention.

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## Research Questions

The research seeks to answer the following questions:

1. What is the prevalence of STIs among the population in Matepatepa farm?
2. How are the socio-economic, behavioral, and environmental factors contributing to the transmission of STIs in Matepatepa farm?
3. To what extent do the knowledge, attitudes, and practices of the population in Matepatepa farm regarding STIs and their prevention impact the transmission of STIs?

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## Review of Related Literature

Sexually transmitted infections (STIs) are a significant public health concern globally, particularly in rural and underserved areas (World Health Organization, 2019). STIs can have severe health consequences, including infertility, pregnancy complications, and increased risk of HIV transmission (James et al., 2020).

Prevalence of STIs Research has indicated that STIs are prevalent in many parts of the world, including Sub-Saharan Africa. A study conducted in Zimbabwe found that the prevalence of STIs among young people was high, with chlamydia and gonorrhoea being the most common STIs among female sex workers was 53.8% (Scheepers et al., 2019; Mungati et al., 2018).

### **To determine the prevalence of STIs among the population in Matepatepa farm, Bindura District.**

Studies have shown varying prevalence rates of STIs in different populations. According to Mungati et al. (2018), the prevalence of STIs among young people in Zimbabwe was high, with chlamydia and gonorrhoea being the most common STIs. Similarly, Nzioka et al. (2018) found that the prevalence of STIs among adolescents in Kenya was 12.1%. Mavhu et al. (2018) also reported a significant prevalence of STIs in rural Zimbabwe, highlighting the need for targeted interventions. In addition to that, Ngwenya and Mawarire (2025) also brought the idea that there is need to know the extent of the Impact of Vaccine Hesitancy of these STIs in Zimbabwe as a whole.

### **To identify the socio economic, behavioural, and environmental factors contributing to the transmission of STIs.**

Research has identified several factors contributing to STI transmission, including socio-economic factors such as poverty and lack of education (Mbonye et al., 2018), behavioural factors like unprotected sex and multiple sexual partners (Nzioka et al., 2018), and environmental factors such as limited access to healthcare services (Scheepers et al., 2019). Chimbindi et al. (2018) found that socio-economic factors, such as poverty and lack of education, were significant predictors of STI transmission in rural Zimbabwe. Mataruse and Mawarire (2024) also brought in the idea that early sexual engagement among the youths also contributes to high transmission of STIs since these youngsters are not yet in a position to control themselves.

### **To assess the knowledge, attitudes, and practices of the population in Matepatepa farm regarding STIs and their prevention.**

Studies have shown that knowledge about STIs and their prevention is crucial in reducing transmission. Shumba and Mawarire (2025) laments that people need to be tested if they feel they are experiencing any symptoms which are STI related as soon as possible. Nxumalo et al. (2019) added that people with good knowledge about STIs are more likely to use condoms and seek medical attention if symptoms arose. Olusanya et al. (2019) also found that participants with poor knowledge about STIs were more likely to engage in risky behaviours. Mavhu et al. (2018) reported that community-based interventions can improve knowledge, attitudes, and practices regarding STIs and their prevention.

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## Ethical Considerations

This study adhered to the principles of respect for persons, beneficence, non-maleficence, and justice (World Health Organization, 2017). The researchers ensured that the study was conducted in an ethical manner, prioritising the well-being and protection of participants.

The researchers ensured that participants were fully informed about the purpose, risks, and benefits of the study, and provided written informed consent before participating in the study, as recommended by Beauchamp & Childress (2013). Participants' autonomy and dignity were respected, and they were free to withdraw from the study at any time without penalty.

Participant data were kept confidential and anonymous, with personal identifiers removed from data collection tools, in accordance with the Health Insurance Portability and Accountability Act (1996). The study aimed to maximize benefits and minimize harm to participants, referring them to relevant health services if needed, as guided by the World Medical Association (2013).

The study obtained approval from the Provincial Medical Director of Mashonaland central Province and ethics committees, complying with all relevant national and international regulations, as required by the Medical Research Council of Zimbabwe (2018).

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## Research Methodology

This study employed a cross-sectional study design to assess the impact of sexually transmitted infections (STIs) in Matepatepa farm, Bindura District, Mashonaland Central Province.

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## Study Design

The cross-sectional study design was chosen for its suitability in determining the prevalence and characteristics of STIs in the population at a specific point in time (Levin, 2006). This design allowed for the collection of data on various variables, including socio-demographic characteristics, knowledge, attitudes, and practices related to STIs.

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## Study Population

The study population consisted of individuals residing in Matepatepa farms (Zvakwana farm, Kinghamdell farm, Benridge farm, etc) specifically those who were sexually active and aged 18-49 years. This age range was selected due to the high likelihood of sexual activity and potential risk of STIs transmission.

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## Sampling Method

A simple random sampling method was used to select participants from the study population, ensuring that every individual had an equal chance of being selected (Cochran, 1977). This method helped to minimize selection bias and ensured that the sample was representative of the population. Snowball sampling method involves recruiting participants through referrals from existing participants, which can be effective for reaching hidden or hard-to-reach populations.

The snowball sampling method is particularly useful for this study because it allows the researcher to reach a large number of participants, including those who may be hesitant to participate in a study on STIs. This method involves identifying initial participants who meet the study's inclusion criteria, asking these participants to refer others who may be eligible to participate and continuing this process until the desired sample size is reached.

The snowball sampling method can be effective for studying sensitive topics like STIs, as it allows participants to refer others who may be more likely to trust the researcher and participate in the study.

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## Sample Size

The sample size was determined using the formula for estimating proportions, taking into account the expected prevalence of STIs, desired precision, and confidence level (Daniel, 1999). A sample size of 150 was calculated, and this number was adjusted for potential non-response.

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## Data Collection

Data were collected using a structured questionnaire that captured information on socio-demographic characteristics, knowledge, attitudes, and practices related to STIs. Biological samples were also collected for laboratory testing to determine the prevalence of STIs. Potential data collection methods for assessing the impact of STIs in Matepatepa farm are, Survey structured questionnaires were used to collect data related to STIs. Interviews in-depth interviews can provide rich, qualitative data on participants' experiences and perceptions regarding STIs. Focus group discussion is a qualitative data collection method that involves gathering a small, diverse group of participants to discuss a specific topic or issue. In the context of this study, focus group discussions conducted with individuals who have been affected by STIs, specifically those who have tested positive or have been diagnosed with an STI. The purpose of conducting focus group discussions with individuals affected by STIs is to gather in-depth information on their experiences, perceptions, and attitudes towards STIs, understand the social, cultural, and economic factors that contribute to the spread of STIs, identify potential barriers to STI prevention, diagnosis, and treatment, and explore possible solutions and interventions that can be effective in preventing and managing STIs.

### Data Analysis

Data analysis was conducted using a combination of descriptive and inferential statistics. Quantitative data was analyzed using SPSS software, while qualitative data from focus group discussions was analyzed thematically.

### Quantitative Analysis

Descriptive statistics were used to summarize socio-demographic characteristics and STI-related data. Frequencies, proportions, and means were calculated to describe the study population. Inferential statistics, including chi-square tests and logistic regression, were used to identify factors associated with STIs.

#### Qualitative Analysis

Thematic analysis was used to analyze focus group discussion data. Transcripts were reviewed multiple times to identify patterns, themes, and insights related to STI experiences, perceptions, and attitudes. Coding and categorization were used to organize the data and identify key findings

#### Data Quality

Data quality was ensured through double-entry data entry and validation checks. Outliers and missing values were identified and addressed accordingly. The analysis was conducted in a way that ensured the accuracy, completeness, and consistency of the data.

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## Findings

The study revealed several key findings related to the impact of STIs in Matepatepa farm:

#### Prevalence of STIs

- The prevalence of STIs among participants was found to be 36%.
- The most common STIs reported were chlamydia, gonorrhea and syphilis

#### Factors Associated with STIs

- Lack of knowledge about STIs was a significant factor associated with STI diagnosis because some children failed to go to school relying on tobacco farming as a source of money for them to survive.
- Participants with lower levels of education were more likely to have poor knowledge about STIs.
- Risky sexual behaviors, such as having multiple sexual partners and under ages example, 16, 17 were also associated with STI diagnosis.
- Mining activities produced a highest percentage of positive diagnosis of STIs

#### Experiences and Perceptions

- Participants reported stigma and shame associated with STIs, which hindered their willingness to seek testing and treatment.
- Lack of access to healthcare services and confidentiality concerns were also identified as barriers to STI care.

#### Impact on Livelihoods

- Participants reported that STIs had a significant impact on their daily lives, including their ability to work and maintain relationships.

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## Conclusion

This study provides valuable insights into the impact of STIs in Matepatepa farm, highlighting the need for comprehensive interventions to prevent, diagnose, and treat STIs. The findings underscore the importance of improving knowledge and awareness about STIs among the community, reducing stigma and promoting confidentiality in STI care, and increasing access to healthcare services, including testing, treatment, and counseling.

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## Recommendations

Based on the study findings, the following recommendations are made:

#### Policy and Program Development

1. Develop and implement policies to ensure access to affordable and confidential STI testing and treatment services.
2. Integrate STI education and awareness programs into existing health initiatives.

#### Community-Based Interventions

- Conduct community outreach and awareness campaigns to reduce stigma and promote STI knowledge.
- Entertainment to those diagnosed positive example donate balls, cell phones and even a small grocery so that those who are already affected but not diagnosed feel to be tested and reduce the spread.
- Engage local leaders and influencers in promoting STI prevention and control.

- Access to condoms to every age group (some under 18 years were diagnosed positive) as a way of preventing the spread of STIs.

#### Healthcare Services

- Strengthen healthcare provider training on STI management and counseling.
- Ensure availability of essential STI medications and diagnostic tools.
- Separate the age groups so that they exhaust their views on such events like health educations on STIs

#### Future Research

1. Conduct further studies to explore the impact of STIs on specific populations.
2. Evaluate the effectiveness of STI interventions in similar settings.

By implementing these recommendations, stakeholders can work towards reducing the burden of STIs and improving the health and well-being of individuals in Matepatepa farm.

#### References

- Beauchamp, T. L., & Childress, J. F. (2013). Principles of biomedical ethics. Oxford University Press.
- Chimbindi, N., et al. (2018). Socio-economic predictors of sexually transmitted infections among young people in rural Zimbabwe. *Journal of Infectious Diseases*, 218(3), 432-441.
- Cochran, W. G. (1977). Sampling techniques. John Wiley & Sons.
- Daniel, W. W. (1999). Biostatistics: A foundation for analysis in the health sciences. John Wiley & Sons.
- Health Insurance Portability and Accountability Act. (1996). Public Law 104-191.
- James, C., et al. (2020). Global estimates of herpes simplex virus type 2 infection, 2016. *PLOS ONE*, 15(1), e0227931.
- Levin, K. A. (2006). Study design III: Cross-sectional studies. *Evidence-Based Dentistry*, 7(2), 24-25.
- Mavhu, W., et al. (2018). Community-based interventions for STI prevention in rural Zimbabwe: a cluster randomized trial. *Journal of Acquired Immune Deficiency Syndromes*, 79(3), 342-350.
- Mataruse, X. & Mawarire, C., (2024). Early Sexual Engagement a Barrier to Personal Development: A Case of Mucheke Suburb in Masvingo Province. *International Journal of Research Publication and Reviews*, Vol 5, no 12, pp 3006-3015 December 2024.
- Mbonye, M., et al. (2018). Factors associated with sexually transmitted infections among adolescents in Uganda. *BMC Public Health*, 18(1), 1-9.
- Ministry of Health and Child Care. (2019). Zimbabwe National HIV and AIDS Strategic Plan 2015-2020.
- Mungati, M., et al. (2018). Prevalence and determinants of chlamydia and gonorrhea among women attending antenatal care clinics in Harare, Zimbabwe. *BMC Infectious Diseases*, 18(1), 1-9.
- Ncube, N. M., et al. (2017). Prevalence and correlates of herpes simplex virus type 2 infection among women aged 15-49 years in Bulawayo, Zimbabwe. *PLOS ONE*, 12(11), e0188302.
- Ngwenya, R. & Mawarire, C., (2025). An Impact Evaluation of Vaccine Hesitancy, a Limitation of Achieving Good Health and Well-Being of Students at Joshua Mqabuko Nkomo Polytechnic College, *International Journal of Research Publication and Reviews*, Vol 6, no 1, pp 3558-3563 January 2025.
- Nxumalo, C. T., et al. (2019). Knowledge, attitudes, and practices regarding sexually transmitted infections among adults in a rural South African community. *African Journal of Primary Health Care & Family Medicine*, 11(1), 1-9.
- Nzioka, C., et al. (2018). Prevalence and correlates of sexually transmitted infections among adolescents in Kenya. *BMC Infectious Diseases*, 18(1), 1-11.
- Olusanya, O. A., et al. (2019). Knowledge, attitudes, and practices regarding sexually transmitted infections among pregnant women in Nigeria. *Journal of Women's Health*, 28(10), 1531-1538.
- Scheepers, E., et al. (2019). Prevalence and correlates of sexually transmitted infections among female sex workers in South Africa. *BMC Infectious Diseases*, 19(1), 1-9.
- Shumba, S. & Mawarire, C., (2025). HIV/AIDS Testing at Joshua Mqabuko Nkomo Polytechnic College, Challenges and Strategies; *International Journal of Research Publication and Reviews*, Vol 6, no 1, pp 5020-5024 January 2025
- World Health Organization. (2019). Sexually transmitted infections (STIs).